DIFFERENCES IN TEXAS SCHOOL ACCOUNTABILITY RATINGS AND STUDENT PROGRESS MEASURES AS A FUNCTION OF THE CAMPUS PRINCIPALS' AVERAGE YEARS OF EXPERIENCE

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DEDICATION

I dedicate this dissertation to several family members who have breathed hope and confidence in me and have also laid the path for me to achieve this goal.

First, to my dad, Dr. Carl Munson, who was the first in our family to graduate from college and the first and only, until now, to earn a doctoral degree. I am so proud to follow in his footsteps. He taught me to debate, to appreciate great books and authors, and instilled in me the crazy belief that girls can do anything that boys can do. He is and has always been my personal casino chip exchange. Just as the poker chips are worthless until exchanged for real cash, with each career success, he is the first I call because those achievements become sweeter and more real when hearing the pride in his voice.

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become, I don't regret one damn thing. Keep working hard, moving forward, and always know that your future self, and your mom, is so proud of you!

ABSTRACT

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Purpose

The purpose of this journal-ready dissertation was to determine the degree to which differences were present in school accountability ratings and progress measures by the experience of principals. In the first study, the degree to which differences were present in accountability rating as a function of the average campus principals' years of experience with the district was examined. The extent to which differences existed in STAAR Reading progress levels as a function of the average campus principals' years of experience with the district was analyzed in the second study. Finally, in the third study, the degree to which differences were present in STAAR Mathematics progress levels as a function of the average campus principals' years of experience with the district was addressed. In each of these studies, data from a Texas statewide dataset were analyzed.

Method

For this quantitative study, a causal-comparative research design was present. Archival data were obtained from the Texas Academic Performance Reports for the 2017-2018 and 2018-2019 school years for all Grade 4 and Grade 5 students who took the STAAR Reading and Mathematics assessments during the two school years, as well as the school accountability ratings.

Findings

Schools with Inexperienced principals were more likely to be labeled as

Improvement Required or D-rated than schools with Moderately Experienced and

Experienced principals. Similarly, students who learned in schools with Inexperienced

principals were outperformed by their counterparts who were in schools with

Experienced principals in every STAAR Reading and Mathematics growth measure.

Regarding school accountability ratings, statistically significant results were present in

both school years for each of the three principal experience groups. In Grade 4 for both

years, higher percentages of students in schools with Experienced principals met the

growth standard in Reading. The percentages of Grade 4 and Grade 5 students who met

expected or accelerated growth on the STAAR Reading and Mathematics measure were

lowest in schools with Inexperienced principals in both school years. Results for the two

school years and for all three articles were consistent with existing research. Implications

for policy and practice and recommendations for future research were provided.

KEY WORDS: Accountability status, Inexperienced, Moderately experienced, Experienced, Elementary schools, Texas, STAAR, Reading, Mathematics, Expected growth, Accelerated growth

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"You have been assigned this mountain to show others in can be moved."-Unknown

I began this doctoral journey while fighting to keep schools deemed as failing from being shuttered and I end it during a worldwide pandemic. I changed jobs three times and made it through several hurricanes and a car crash. Through the past four years, I saw both of my kids graduate from high school and begin college. I witnessed racial and social injustices, a polarized and divided population, and a political upheaval and insurrection that this country had never experienced. I am both an optimist and a realist and understood the task ahead would have challenges. Through it all, I had a tribe of family and friends who kept me focused on the goal, who guided me, challenged me, and sometimes, just listened to me.

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I am exactly where I need to be.

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CHAPTER I

INTRODUCTION

School district leaders are tasked with a multitude of responsibilities from evaluating teachers to ensuring a safe and secure facility. Principals play key roles in the successes and failures of their schools. With the inception of the No Child Left Behind Act (2001) and the Every Student Succeeds Act (2015), increased focus has been placed on school district and school campus accountability. The pressure on schools and districts to perform or make progress is increasing every year. In many communities with high percentages of students who come from poverty or students of color, the much talked about achievement gap continues to widen. Principals of these schools are directed to improve scores or risk losing their jobs. This principal churn has caused struggling campuses to see large turnovers of school leaders, resulting in a lack of coherence and consistency of practices and strategies. As a result, school district administrators recognize the importance of a highly effective leader at the nation's most struggling schools and the need to develop, train, and support these leaders to improve student outcomes.

Review of the Literature on Principal Experience and State or Federal Accountability

The role of the school principal is very complex, often poorly defined from school district to school district and even from school campus to school campus. The principal's role has expanded to include more instructionally focused duties (Kraft & Gilmour, 2016; Neumerski et al., 2018). With the beginnings of No Child Left Behind Act (2001), the fact that principals were now being held accountable for adequate yearly progress added

to the pressures of their position. These increased work demands and accountability requirements resulted in new principals leaving the profession in large numbers, especially in urban school communities (Beteille et al., 2012). More than one fifth of first year principals exited the principalship within two years (School Leaders Network, 2012). Given the increased stresses, many principals have reported a lack of ongoing support and development from their school districts (School Leaders Network, 2012).

Although the link between principal experience and student achievement has been deemed to be indirect in nature, schools that lost a principal after just one year underperformed in the second year (School Leaders Network, 2012). In a recent investigation, Babo and Pastma (2017) examined the influence of principal tenure on student academic performance through an analysis of the data from 172 elementary schools in New Jersey. They revealed the presence of statistically significant relationships between principal tenure and overall student achievement. In a similar study from Georgia, Huff et al. (2011) determined that principal tenure did not have a statistically significant effect on student achievement, but principal experience did have an effect when controlled for other school variables such as student economic status. One of the salient findings from both studies was that school districts needed to hire and retain experienced educators for principal vacancies, taking them from the classrooms where they are more often effective teachers.

Huff et al. (2011) conducted a study in which they examined the relationship of principal tenure, stability, and experience with middle school achievement. In Georgia, public-school districts were facing tremendous principal shortage. Huff et al. (2011) revealed that principal tenure and stability did not statistically significantly affect middle

school achievement. Regarding principal experience, however, student achievement was positively correlated. Schools with lower principal turnover had higher student achievement than those schools that had higher principal turnover.

School districts are making attempts to mitigate the effects of principal turnover by distributing leadership in the schools (Leithwood, Mascall, & Strauss, 2009). Mascall and Leithwood (2010) analyzed survey responses to a teacher and principal survey as well as achievement data from school campuses. In school campuses and school districts with high principal turnover, Mascall and Leithwood (2010) determined that a distribution of duties mitigated some of the negative consequences of turnover. This distribution of duties was highly influenced by the principal, the existing school culture, and contributed to the overall school improvement efforts. When distribution of leadership was coordinated and implemented, some of the negative consequences of principal turnover appeared to be mitigated. Principals have substantial ownership in the distribution of leadership on their campuses. This burden is often placed on a new principal who is learning the culture and traditions of the campus. One vital activity for the school district must be the provision of guidance and support during principal transition.

With the increasing numbers of principal departures, understanding the reasons for such leadership departures is vital to addressing the problem. Tekleselassie and Villarreal (2011), in an analysis of the transitional career behaviors of school principals, examined how individual, school, and the conditions of the workplace influenced intentions to transfer among school principals in the United States. Revealed in the data analyses were several major trends. First, characteristics were identified such as gender,

age, salary, and job satisfaction that might have commonly influenced mobility and departure. Mobility was also determined to be strongly related to working in urban areas, work-week hours, and professional development. Schools that had high principal turnover experienced undesirable outcomes such as the inability to grow and sustain improvements and change (Tekleselassie & Villarreal, 2011).

Principal exits were also highly influenced by the sanctions-based accountability measures in the No Child Left Behind Act (2001). Public schools were required by this law to make adequate yearly progress in reading and mathematics for all student subgroups (Mitani, 2018). Schools, along with their principals, faced scrutiny as the results from these assessments were released to the public. Continuous failure led to measures such as a replacement of the staff, state takeover of the school, or even closure. Mitani (2018) determined that the No Child Left Behind Act sanctions were positively associated with principal job stress, turnover rates, and transfer rates. The hope was that the new federal law, the Every Student Succeeds Act, would offer more support for principals. The Every Student Succeeds Act does address leadership retention through funding allocations. Under Title II, Part A, districts can reserve up to 3% of funds to support principals through activities such as coaching or mentoring for school leaders (Grossman & Nagler, 2019).

In a study, Ni et al. (2015) examined the dynamics that affected principal turnover in charter schools as compared to traditional public schools. Similar to previous researchers, Ni et al. (2015) explored the extent to which charter school and traditional school principal background and school factors contributed to the turnover. Charter school principals, upon departure, tended to acquire non-principal positions or leave the

school system altogether whereas public school principals, upon departure, tended to continue in the principalship, usually within their same district but at a different campus. The tenure of charter school principals was much less than the tenure of traditional public school principals, highlighting the need for support systems within the charter school network to ensure that effective principals remained longer at the schools in which they were assigned.

Another possible factor contributing to principal turnover, according to researchers in California (Young, Young, Okhremtchouk, & Castaneda, 2009), was the relationship with principal compensation. Tran (2017) examined this relationship between high school principal pay satisfaction and turnover intentions. Using a pay satisfaction questionnaire, Tran received responses from over 150 high school principals. Congruent with a previous research investigation conducted by Baker, Punswick, and Belt (2010), principals who were not satisfied with their pay were more likely to seek other jobs. This relationship was especially important considering legislation in many states that incentivized principals for student achievement scores rather than longevity. Baker et al. (2010) highlighted the importance of pay as a contributor of principal turnover.

Many principals have reported a lack of ongoing support and development from their school districts (School Leaders Network, 2012). More than one fifth of first year principals left the principalship within two years (School Leaders Network, 2012). Goldring, Taie, and Owens (2014) revealed, in a national sample of private and public school principals from 2011 to 2012, that 6% of principals moved to a new school and 12% left the principalship altogether. As accountability pressures increased under the No

Child Left Behind Act (2001), an even higher rate of principal departures occurred at campuses that did not meet Adequate Yearly Progress (School Leaders Network, 2012). Fullan (2001) revealed that it takes five to seven years for improvement to take hold in a school and principal churn resets the clock on these efforts.

As stated previously, principal tenure affects students from poverty at a higher rate than more affluent communities. The frequency of principal turnover was statistically significantly greater for urban schools with high numbers of students of color students and high levels of poverty (Sturgis, Shiflett, & Tanner, 2017). In their study, principals with two or more years of principal experience had a positive influence on student outcomes. Unfortunately, Sturgis et al. (2017) revealed the difficulty of retaining highly effective principals at low-performing schools. Beteille et al. (2012) concluded that many new principals used their first position at a low-performing school as a stepping-stone to future promotions. Consequently, they recommended hiring experienced principals at low-performing schools rather than hiring first year principals.

In contrast to other researchers, Boyce and Bowers (2016) investigated the extent to which different types, or sub-groups, of principals exited their schools. Using the 2007-2008 Schools and Staffing Survey and the 2008-2009 Principal Follow-up Survey from the National Center for Education Statistics, Boyce and Bowers (2016) explored the factors that influence principal turnover between the sub-groups of exiting principals. Tekleselassie and Villarreal (2011) laid the groundwork for Boyce and Bowers, who discovered some contrasting results. Specifically, when there were evident climate problems that occurred, this one criterion assisted in distinguishing satisfied and disaffected principals who subsequently exited their schools.

In respect to the effects of poverty on principal turnover, Branch et al (2013) focused their research on Texas schools and reported that schools with higher percentages of students in poverty were more likely to have first-year principals than schools serving higher percentages of students who were not in poverty. Texas schools with higher percentages of students from poverty were also less likely to have principals at the same school for at least six years than schools with less disadvantaged student populations.

Review of the Literature on Principal Experience and Reading Achievement

The lessons learned through experience are invaluable to effective principals and become part of their leadership toolkit as they seek skills and strategies to improve their craft (Liebowitz & Porter, 2019). These innovative and reflective leaders create substantial changes each year. Seashore-Louis et al. (2010) revealed that it can take an average of five years to mobilize a vision for the school, coach and develop the teachers, and establish core beliefs that will lead to improved student performance. Additionally, experienced principals can coach ineffective teachers out and recruit talented teachers, thus changing the academic trajectories for students (Horng, Klasik, & Loeb, 2010).

Effective principals can affect the closing of achievement gaps and ensure that students who are behind surpass the expected one year of growth annually (Branch, Hanushek, & Rivkin, 2012). In fact, the most effective school leaders can accelerate growth by as much as seven additional months in a single year (Branch et al., 2013). Therefore, it is vital to support and retain the most effective principals so they can implement and maintain school improvement efforts that accelerate progress for all students and, one day, eliminate the achievement gaps (School Leaders Network, 2014).

The role of the principal has taken on many shapes over the past few decades. With the adoption of the No Child Left Behind Act of 2001, new pressures were placed on school districts and, more specifically, school principals, to improve student achievement. This shift from managerial leadership to instructional leadership evolved over the past few decades and gained traction in the 1990s to focus on supporting and developing teachers and improving low-performing schools (Catano & Stronge, 2006). Since that time, the Every Student Succeeds Act of 2015 included educational policy developments that further expanded the scope of responsibilities for the principal including the adoption of high-stakes teacher evaluation systems and even more levels of external accountability (Liebowitz & Porter, 2019).

Measuring a principal's influence on student learning has yielded a wide variety of correlational and causal relationships between leadership behaviors, experience, and school characteristics to student outcomes (Mora-Whitehurst, 2013; Ni, Sun, & Rorrer, 2015; School Leaders Network, 2014). Nevertheless, several researchers (e.g., Branch, Hanushek, & Rivkin, 2012; Miller, 2013) have provided strong evidence that principals affect the variability of student learning gains. In one such study, Beteille, Kologrides, and Loeb (2012) documented student achievement increased when principal tenure increased. As a result, principal experience plays a role in improving student outcomes.

Furthermore, the disruptive result of principal turnover on schools, particularly those schools in high poverty areas, is clearly negative. Beteille et al. (2012) compared principal tenure with student achievement gains. They concluded that principal tenure was more highly correlated with schools with more student from poverty than with schools with less students from poverty. Additionally, schools with higher principal

turnover often are in areas that serve a higher percentage of students from poverty.

Principal turnover in these schools has more detrimental effects than principal turnover in more advantaged schools (Beteille et al., 2012).

School leaders are charged with a myriad of complex and varied tasks, managerial and instructional (Hollenbeck & Rieckhoff, 2014). This expanded workload with increased responsibilities such as leading professional learning communities, parent outreach, and intensive monitoring of achievement data have caused many to leave the role and the profession at an alarming rate (Mascall & Leithwood, 2010; School Leaders Network, 2014). Three fourths of all principals stated that the role has become far too complex with these new responsibilities and the increased accountability (Harris Interactive, 2012). Moreover, nearly 50% of surveyed principals reported feeling an enormous amount of stress several days a week (Harris Interactive, 2012). Principals are leaving their positions because of the responsibilities of managing budgets, resources and staff while also having the meet the varied needs of the learners on their campuses.

The principal is held accountable for everything that happens in the building, from achievement to discipline to staff turnover. Researchers (e.g., Babo & Postma, 2017) have established that school leader continuity, defined as one or two principals serving during a 10-year period, has a small yet statistically significant association with overall student performance when factoring for other influences such as demographics and poverty. Huff et al. (2011) revealed that, although principal tenure did not have a statistically significant effect on student achievement at the middle school level, principal experience and stability may affect student achievement. The more experience an

incoming principal brought to a campus correlated positively to higher student achievement in reading and mathematics (Huff et al., 2011).

Research studies in which links have been made between school leadership and sustainable school reform efforts that improve outcomes for all students have increased substantially over the past 15 years (Cummins, 2015). Because principal influence on student achievement is often indirect and the effects are not immediately evident, district administrators may overlook the reasons why schools are not achieving at high levels or sustaining progress (Babo & Postma, 2017; Huff et al., 2011; Ni et al., 2015). Principals operate their schools in much the same fashion as a conductor leads an orchestra. From setting a vision for success to recruiting and hiring staff, the school leaders handle many components of the organization that, when added together, becomes a critical mass of practices, strategies, and school improvement efforts that lead to improvement, or lack of improvement, in student achievement (Manna, 2015).

Taking these factors into consideration, the culture and climate of a school is greatly influenced by principals creating and supporting teachers, so they feel they are a part of a community of professionals (Cummins, 2015). Also, effective principals enable their leadership teams and teacher leaders to strengthen collaborative practices, instructional strategies, and other initiatives that will lead to higher student achievement and post-secondary success. Through this shared leadership the principals strengthen their ability to align their vision to action (Hollenbeck & Rieckhoff, 2014). Furthermore, organizational alignment can only be achieved when principals identify the leaders on campus, develop strong working relationships, and experience longer tenure on their campuses.

Influence of Principals on Literacy

Just as principals have influence over the culture and climate of a building, so, too, must they lead focused literacy reform efforts (Hollenbeck & Rieckhoff, 2014). Yet, principal influence on literacy, similar to overall improvements in student achievement, has been shown to be indirect (Fletcher, Grimley, Greenwood, & Parkhill, 2011; Mora-Whitehurst, 2013). However, the principals must play a central role in school wide literacy reform on campuses (Hollenbeck & Rieckhoff, 2014). As the instructional leaders they have been tasked with monitoring instruction on their campuses more closely using various observation techniques (Reeves, 2008). In the era of accountability, they must identify specific practices and techniques for improving the level of student achievement, specifically in literacy that has been important to all stakeholders (Gieselmann, 2009).

Unfortunately, many schools have not experienced literacy successes and much of this lack of growth in reading scores is due to the inability of school leaders and teacher to implement consistent, high-quality literacy programs and practices (Mora-Whitehurst, 2013; Reeves, 2008). This stagnation in reading progress may be caused by a lack of clear understandings regarding effective literacy practices as well as inconsistent implementation and monitoring of literacy programs and initiatives (Reeves, 2008). Principals, who take a whole-school approach toward improving reading, including targeted professional development of staff, raise the overall literacy achievement of students (Fletcher et al., 2011). Another way that principals can lead the way with literacy is by promoting and providing high-quality pre-service and professional development for reading specialists and teachers (Hollenbeck & Rieckhoff, 2014).

Whether the school is a proponent of whole language, phonics, or the balanced literacy approach, an effective school leader can have an effect on student reading by supporting the growth and literacy development of all teachers as well as all students on the campus (Ediger, 2008). Supporting this growth of literacy takes time and would be greatly affected with each successive leadership change.

Principals' understanding of the reading programs, coupled with their ability to act as instructional and visionary leaders, may be a strong influence on students' reading outcomes (Mora-Whitehurst, 2013). Mora-Whitehurst (2013) confirmed that visionary leadership with qualities such as consistency, caring, confidence, and empowerment, were related to an improvement in reading scores at the upper elementary grades. The relationship between elementary principal's visionary leadership and reading performance, although indirect, may provide valuable insight into the organizational conditions and instructional quality that is required for reading progress (Mora-Whitehurst, 2013).

Principals and Data-Driven Practices

One leadership practice that is being investigated as a tool for school improvement efforts is the ability of the principal to engage in data-driven practices (Yoon, 2016). These strategies include the ways in which principals use student data and inform teachers about these data is a vital component to the school's successful and sustainable reform efforts. According to the research from Yoon (2016), the link between principal data-driven practices on reading achievement was not statistically significant, supporting the indirect relationship between student learning and leadership practices. Nevertheless, from the same study, when teachers were reported to buy into

the practices and programs on a campus, students in those schools experienced higher reading achievement than in counterpart schools with less teacher buy-in (Yoon, 2016).

Some educators in the education community believe, to initiate effective school turnaround means to change the leadership of the school. In contrast, Hochbein and Cunningham (2013) demonstrated in their research that making a change in principal did not automatically signify an improvement in performance. In fact, schools with one or more changes in principal were just as likely to see increases in student achievement as they were to experience declines (Hochbein & Cunningham, 2013). Thus, simply changing the school leader did not predispose a school for improved student performance. The recommendations included a broader emphasis in principal preparation programs for concentrations to equip new and existing principals with better knowledge and skills necessary to meet and to address the challenges of school improvement (Hochbein & Cunningham, 2013).

In the United States, 18% of public school principals will leave their positions every year (Bartanen, Grissom, & Rogers, 2019). Most schools are led by principals with less than 10 years of experience (Miller, 2013). To place this statistic into raw numbers, nearly 25,000 principals leave their campuses every year and 50% of new principals, principals with less than three years of experience, will leave their roles by their third year (School Leaders Network, 2014). Although schools experience academic drops when principal transitions occur, Miller (2013) suggested decreases in academic performance may be a result of a departure of the principal due to involuntary reasons (e.g., termination, reassignment, sickness) and demonstrate that not all principal transitions are the same.

The State of Texas adopted a new standardized testing system in 2012. The State of Texas Assessments of Academic Readiness (STAAR) replaced the Texas Assessment of Knowledge and Skills given to students from 2003 to 2013. According to the Texas Education Agency (2015), the STAAR test was supposed to be more rigorous and more comprehensive than the previous state assessment. The STAAR test was designed to measure what students were learning in each grade and whether they were ready for the next grade. Not new to Texas was the pressure for schools to perform well on these standardized assessments. Much of this burden was placed on principals and teachers who were tasked with raising test scores regardless of demographics, location, or condition of the school community (DeMatthews, 2014). Consequently, work conditions seemed insurmountable at schools serving low-income, highly challenging students coupled with the increased pressure to increase student performance (School Leaders Network, 2014).

In Texas public schools, the STAAR tests measure a variety of components including achievement levels, progress measures, and Lexile levels. Progress is measured as a student's gains score that is the difference between the student's score the prior year and the student's score in the current year. An individual student's progress is categorized as *Did Not Meet, Met,* or *Exceeded*. Furthermore, the state has provided an additional designation called the On-Track measure which provides information about whether a student is on track to be at or above the Meets Grade Level performance standard in future years.

The new Texas state assessment (i.e. STAAR), in contrast to the previous state assessment, was not only focused on measuring student achievement; it also weighted a

school's accountability rating based on student progress measures. For the STAAR tests, progress was measured as a student's gain score, or the difference between the score a student achieved in the prior year and the score a student achieved in the current year. Individual student progress was then categorized as *Did Not Meet Progress Measure*, *Met Progress Measure*, or *Exceeded the Progress Measure* (Texas Education Agency online, 2020). This change in the accountability measures was implemented in an attempt to level the playing field for schools serving large numbers of low-income students, by giving weight to individual students and schools who meet or exceeded individual growth targets, thus, closing the achievement gaps between high and low income students and schools.

Review of the Literature on Principal Experience and Mathematics Achievement

Growing evidence exists that a principals who are strong instructional leaders are more effective and more sought after than principals who serve as a manager or administrative leader (Miller, 2013). The effect that principals have on student achievement has been documented to vary from study to study and to be dependent on a variety of factors. One factor that has brought growing attention is the effect of the principal's longevity on student academic achievement (School Leaders Network, 2014). Furthermore, researchers (Ediger, 2008; Hollenbeck & Rieckhoff, 2014; Mackey, Pitcher & Decman, 2006) have analyzed the effect of principal tenure and experience on specific content areas such as English Language Arts and Mathematics. In a time of high principal and teacher turnover, it is important to understand the link that exists between leadership and achievement and how school districts can attract, develop and retain the most effective principals.

As part of a study of Georgia high school students' graduation test scores,
Siegrist, Weeks, Pate, and Monetti (2009) documented that the principal factors that most
influenced students' test scores were the percentage of students on free and reduced
priced lunch, the number of years of tenure at the current school, and principal efficacy
(Siegrist et al., 2009). Principals' tenure at their current school was less than four years.

This statistic is consistent with the findings of Burkhauser, Gates, Hamilton, and Ikemoto
(2012) who reported one in five principals in the United States leave their school after
one year. Siegrist et al. (2009) and Burkhauser et al. (2012) both reported that principal
turnover negatively affects student achievement.

In a similar study, Babo and Postma (2017) documented that a statistically significant association was present between principal tenure at a campus and overall student performance in language arts and mathematics on the New Jersey state assessment. Though the relationship was small in nature, it is important when accounting for the other school and leadership variables that influence student achievement (Babo & Postma, 2017). Essentially, the researchers concluded that a principal's tenure at a campus has an influence on the overall students' achievement in reading and mathematics.

As previously mentioned, frequent principal turnover has been documented to have negative effects not only for students but also for teachers. Turnover can disrupt school reform efforts, diminish employee buyin, fracture relationshipsamong staff and leaders, and create goals and expectations that are unclear and unaligned (Beteille, Kalogrides, & Loeb, 2011). The disruption brought on by principal turnover is particularly evident in high poverty schools. These disruptive and negative effects were

often mitigated when school districts brought in experienced administrators.

Unfortunately, districts that continue to hire new, inexperienced principals to fill vacancies at high poverty schools appear to experience more detrimental effects from leadership stability (Beteille et al., 2011).

The role of the principal has taken on many forms over the past few decades. With the adoption of the No Child Left Behind Act of 2001, new pressures were placed on school districts and, more specifically, school principals, to improve student achievement. This shift from managerial leadership to instructional leadership evolved over the past few decades and gained traction in the 1990s to focus on supporting and developing teachers and improving low-performing schools (Catano & Stronge, 2006). Since that time, the Every Student Succeeds Act of 2015 included educational policy developments that further increased the scope of responsibilities for the principal including the adoption of high-stakes teacher evaluation systems and even more levels of external accountability (Liebowitz & Porter, 2019).

Measuring a principal's influence on student learning has yielded a wide variety of correlational and causal relationships between leadership behaviors, experience, and school characteristics to student outcomes (Mora-Whitehurst, 2013; Ni et al., 2015; School Leaders Network, 2014). Nevertheless, several researchers (e.g., Branch, Hanushek, & Rivkin, 2012; Miller, 2013) have documented that principals affect the student learning gains. In one such study, Beteille, Kologrides, and Loeb (2012) documented student achievement increased when principal tenure increased. As a result, principal experience plays a role in improving student outcomes.

Some educators believe that to initiate effective school turnaround means to change the leadership of the school. In contrast, Hochbein and Cunningham (2013) demonstrated in their research that making a change in principal did not automatically result in improvements in performance. In fact, schools with one or more changes in principal were just as likely to see increases in student achievement as they were to experience declines (Hochbein & Cunningham, 2013). Thus, simply changing the school leader did not predispose a school for improved student performance. Recommendations included a broader emphasis in principal preparation programs for concentrations to equip new and existing principals with better knowledge and skills necessary to meet and address the challenges of school improvement (Hochbein & Cunningham, 2013).

Schools with a high percentage of students from low socioeconomic status are associated with lower student achievement. Several researchers (Siegrist et al., 2009; Slovacek, Kunnan, & Kim, 2002) have supported that the higher percentage of free and reduced lunch students in a school was a statistically significant indicator of student achievement. These same schools, with high percentages of students from poverty, were more often led by principals with less experience and lower principal stability (Huff et al., 2011) than schools with lower percentages of students in poverty.

Under the Obama administration, persistently low-achieving schools were eligible to receive federal grants to support school improvement efforts. A requirement for the funds was radical change such as replacing principals and teachers (Beteille et al., 2011). These schools primarily had a high percentage of students in poverty. Many of these schools face high rates of principal turnover because of principals moving to more appealing schools (Loeb, Kalogrides, & Horng, 2010). Nevertheless, not all turnover is

detrimental to the school. Principals' motivation to leave their current position is explained by a push-pull theory. Principals may be pulled into a new position either by promotion or transfer, or they may be pushed out of the position either by termination or political forces within the organization (Boyce & Bowers, 2016).

Schools with the highest concentration of students from poverty must have leaders who are experienced and know how to navigate the bureaucracy that is a reality in most school districts. Principals who are new to schools face a myriad of obstacles that may impede their ability to implement school improvement efforts (Burkhauser, et al., 2012). Those principals who remain often do not stay at schools with high poverty percentages (School Leaders Network, 2014).

Principal turnover frequency was higher in urban schools than in suburban campuses (Partlow & Ridenour, 2008). This lower stability with principals may be a factor that influences school reform efforts. To improve the organizational stability of urban schools who educate a high percentage of students from poverty, school districts should create conditions to promote effective change and counter frequent principal turnover (Partlow & Ridenour, 2008).

Statement of the Problem

Principal turnover is becoming an increasing problem in the United States and the reasons are multifaceted in nature (Burkhauser et al., 2012; Mitani, 2018). Baby-boomer principals have reached retirement age; increased demands for reform based on accountability standards exists; and the expansion of the role of principal includes a demand for instructional leaders more than managers (Mascall & Leithwood, 2010). As a result, the responsibilities of principals have changed, and the job has become far more

complex than in the past (Harris Interactive, 2012). Examined in several studies (e.g., Babo & Pastma, 2017; Huff et al., 2011; Norton, 2002) were the relationships between principal retention and student achievement. For many of these studies, indicated in the results was the finding that a principal's length of service substantially influenced student performance and improved the culture and climate of the building. Although a multitude of factors influences a principal's intentions to change schools or depart from the profession altogether, school districts are under immense pressures to increase achievement scores. Taking into account that 12% of first year principals in high needs school districts leave after their first year on the job, school districts and principal preparation programs must address the factors that lead to departure and work to identify the characteristics that lead to an effective and stable principalship (Burkhauser et al., 2012).

Principals are integral in setting the vision for the campus. Principals are also some of the most influential people with the in the overall success or failure of the campus because they are tasked with recruiting, training, and retaining highly effective teachers (Azaiez & Slate, 2017). In the United States, school districts are struggling to do the same for effective principals: recruit, train, and retain. This need to stop the high rates of principal turnover is especially true in high-poverty, urban school districts which experience higher principal turnover.

Accountability from the federal, state, and local governments have also placed increased pressures on principals to achieve higher student outcomes and make adequate yearly progress. School improvement efforts have led to haphazard gains in achievement scores, especially at schools with a high percentage of students from poverty. Schools

with the highest concentration of students from poverty must have leaders who are experienced and know how to navigate the bureaucracy that is a reality in most school districts. Principals who are new to schools face a myriad of obstacles that may impede their ability to implement school improvement efforts.

Researchers (Beteille et al., 2011; Siegrist, et al., 2009) have demonstrated that a principal makes an influence on student achievement, second only to that of a teacher. Various researchers (Hollenbeck & Rieckhoss, 2014; Grissom, Kalogrides, & Loeb, 2017) have examined the link between principal experience and tenure on literacy or mathematics achievement and have shown mixed results. Too often, a cyclical effect is occurring in many schools across the nation. Schools in the most underserved communities with the highest percentage of students from poverty are seeing a revolving door of principals. If these same school districts could place experienced, effective principals in these roles and retain them, a chance remains that this cycle can be broken and students would have access to visionary, innovative, and transformative leaders in their schools.

Purpose of the Study

The purpose of this journal-ready dissertation was to determine the degree to which differences were present in school accountability ratings and progress measures by the experience of principals. In the first study, the degree to which differences were present in accountability rating as a function of the average campus principals' years of experience with the district was examined. The extent to which differences were present in STAAR Reading progress levels as a function of the average campus principals' years of experience with the district was analyzed in the second study. Finally, in the third

study, the extent to which differences existed in STAAR Mathematics progress levels as a function of the average campus principals' years of experience with the district was addressed. In each of these studies, data from a Texas statewide dataset were analyzed. An analysis of academic performance for the 2017-2018 and 2018-2019 school years was conducted to determine the degree to which trends were present.

Significance of the Study

Extensive research exists regarding the influence of principals on student achievement (Babo & Postma, 2017; Huff et al., 2011; Seigrist, Weeks, Pate, & Monetti, 2009). Furthermore, other researchers (Mascall & Leithwood, 2011; School Leaders Network, 2014; Tekleselassie & Villarreal, 2011) have presented alarming evidence related to principal turnover and student success. As a result of this study, school district administrators may be led to craft differentiated support systems and tools to help new principals to grow and develop their skills. Additionally, layers of support can be provided to help seasoned principals manage their workloads without burning out. Furthermore, leaders of education institutions may be motivated to institute practical, hands-on training to individuals entering positions of educational leadership. Given the significance of principal effectiveness to the school culture and academic achievement levels, it is imperative that district leaders comprehend the influence of principal experience and tenure on student achievement and the school's ability to meet state and federal accountability targets. By reviewing the results of the three articles in this journal-ready dissertation, district and state education leaders may expose areas for further strengthening district support such as principal coaching, training, and incentive pay systems. Finally, state legislators and the Texas Education Agency may become

motivated to provide funding for improved principal training and resources to support campus level administrators and teachers who must maintain high levels of student achievement.

Definition of Terms

Key terms are defined below to provide the readers with a clear understanding of the concepts presented in this this journal-ready dissertation.

Accelerated Growth

Accelerated growth takes the percentage of assessments in the 2016-2017, 2017-2018 and 2018-2019 school years that exceeded the STAAR progress measure expectations. If a student's progress measure is expected, he or she met growth expectations. If the student's progress measure is accelerated, he or she exceeded growth expectations. For the 2018-2019 school year, accelerated growth was the percentage of assessments that exceeded the STAAR progress measure expectations (Texas Academic Performance Report Glossary, 2018).

Campus Accountability Rating

The Campus Accountability Rating is the overall rating earned by the district or campus for 2017, 2018 and 2019 school years (Texas Academic Performance Report Glossary, 2019).

Exceeded Progress

Exceeded progress is the percentage of tests in 2016-2017 that exceeded the progress measure expectations. This indicator was used in determining the score for Index 2 (Texas Academic Performance Report Glossary, 2018).

Expected Growth

Expected growth takes the percentage of assessments in the 2016-2017, 2017-2018 and 2018-2019 school years that met the STAAR progress measure expectations. If a student's progress measure is expected, he or she met growth expectations. For the 2018-2019 school year, expected growth was the percentage of assessments that met the STAAR progress measure expectations (Texas Academic Performance Report Glossary, 2018 & 2019).

Mathematics Progress

Mathematics progress is the growth score awarded in School Progress, Part A:

Academic Growth for improving performance year over year as measured by STAAR

progress measures and performance levels on STAAR. It indicates the amount of
improvement or growth in reading made from year to year (Texas Academic Performance
Report Glossary, 2019).

Met Progress

The percentage of tests in 2016-2017 that met the progress measure expectations.

This indicator was used in determining the score for Index 2 (Texas Academic Performance Report Glossary, 2019).

Principal

According to the Texas Education Code, Title 2 Public Education, Sec. 11.202: The principal of a school is the instructional leader of the school and shall be provided with adequate training and personnel assistance to assume that role. According to the website from Merriam-Webster, a principal is defined as a person who has controlling authority or is in a leading position such as a chief,

headman or woman, or chief executive officer of an educational institution. (2019, para. 1)

Principal Experience

Average Years as Principal: The number of completed years of experience as a principal, regardless of district or interruption in service. These amounts are added together and divided by the number of all principals reported for the campus (Texas Academic Performance Report Glossary, 2019, 2020)

Principal Turnover

Principal turnover is defined as one principal exiting a school and being replaced by a new principal (Culle & Mazzeo, 2008).

Reading Progress

Growth score awarded in School Progress, Part A: Academic Growth for improving performance year over year as measured by STAAR progress measures and performance levels on STAAR. Indicates the amount of improvement or growth in reading made from year to year (Texas Academic Performance Report Glossary, 2019).

Texas Academic Performance Report

The Texas Academic Performance Reports pull together a wide range of information on the performance of students in each school and district in Texas every year. Performance is shown disaggregated by student groups, including ethnicity and socioeconomic status. The reports also provide extensive information on school and district staff, programs, and student demographics (Texas Education Agency, 2018, para. 1).

Literature Review Search Procedures

In this journal-ready dissertation, the relevant research literature in three areas was reviewed. In the first area of review, the empirical literature on the influence of principals on student achievement was analyzed. In the second literature review section, the effects of principals on reading achievement was discussed. In the third area of review, the influence of principals on mathematics achievement was addressed.

For this journal-ready dissertation, the literature regarding principal experience, principal turnover, student academic achievement, and accountability standards were examined. Phrases that were used in the search for relevant literature were: *principal experience*, *principal tenure*, *principal turnover*, *principal stability*, *student academic achievement*, *accountability*, *and school leadership*. Searches were conducted through the EBSCO Host database under Education Source. Only peer reviewed articles from 2008- 2019 were considered.

Key word searches for *principal experience* yielded 958 results and by narrowing the publication date to 2008-2019 the results were reduced to 521. The search was again reduced to 35 by adding *academic achievement*. When using the key word search for *principal turnover*, 90 articles were returned, and was narrowed to 51 when limiting the articles to published dates from 2008-2019. By narrowing by only peer reviewed articles, the search results were reduced to 30 articles. Additional searches for the key words *school leadership* yielded 27,917 results and was narrowed to 15,109 when limiting the years from 2008-2019 and further reduced to 9,107 for only peer reviewed articles. When the key word *accountability* was added to the search process, the number was further reduced to 624 articles.

Delimitations

In this investigation, only Texas school accountability rating, reading progress, and mathematics progress of students was addressed, along with Texas elementary principals' years of experience as defined by the State of Texas. Moreover, only three school years of data was analyzed. A second delimitation was that the studies in this journal-ready dissertation were restricted to public elementary schools with Grade Kindergarten through Grade 5 in the State of Texas. The data for this study was agespecific to Grade 4 and 5 students in Texas public schools.

Limitations

For the purpose of this journal-ready dissertation, the effect of the average campus principals' years of experience to the school accountability rating, to the progress in reading, and to the progress in mathematics for elementary students in Texas public schools was examined. As such, several important limitations were present. One major limitation included the use of archival data. Thus, in a study in which archival data was analyzed, a cause-effect relationship determination cannot be made. As a result, variables other than the average of all principals' years of at a campus may be present.

Another limitation is the limited number of datasets available. The archived data for average principals' years of experience began to be reported in the 2016-2017 school year, thus providing only three years of datasets. In this study a cause-effect relationship cannot be determined, factors other than principals' years of experience provided a larger contribution to the results presented.

Assumptions

For the purpose of this journal-ready dissertation, the assumption was made that academic achievement data and principal years of experience in the district were recorded accurately and consistently by school districts. The second assumption is that progress scores on the STAAR assessment accurately captured true academic growth in reading and mathematics. Consequently, deviations from these assumptions may have affected any results obtained in this journal-ready dissertation.

Organization of the Study

This journal-ready dissertation includes three research investigations. Chapter I includes the background of the study, statement of the problem, purpose of the study, significance of the study, definition of terms, delimitations, limitations, assumptions, and outline of the journal-ready dissertation. In Chapter II, the first journal-ready research study on school accountability rating as a function of the campus principals' average years of experience will be analyzed. Chapter III will be the second journal-ready research study and will be a report of the extent to which differences in STAAR Reading progress levels may exist as a function of the average years of experience of all campus principals. The extent to which differences might exist in STAAR Mathematics progress levels as a function of the campus principals' average years of experience will be reported in Chapter IV. Finally, in Chapter V, an overview of the results interpreted in the three articles was provided with implications for future policy and practice.

CHAPTER II

DIFFERENCES IN TEXAS ELEMENTARY SCHOOL ACCOUNTABILITY RATINGS AS A FUNCTION OF PRINCIPAL EXPERIENCE

This dissertation follows the style and format of Research in the Schools (RITS).

Abstract

In this statewide, multiyear analysis, the extent to which differences were present in school accountability ratings of elementary schools by principal experience was determined. Specifically examined was the relationship of principals' years of experience and the accountability ratings of elementary schools in the 2017-2018 and 2018-2019 school years. Inferential statistical analyses revealed the presence of statistically significant differences in school accountability ratings as a function of the principals' years of experience. In every instance, schools that were led by Inexperienced or Moderately Experienced principals were outperformed by schools led by Experienced principals. Considering the growing numbers of principals who are leaving the profession and the greater emphasis on meeting state and federal accountability measures, these findings are of great concern. Implications of these findings and recommendations for future research are discussed.

Keywords: Accountability status, Inexperienced, Moderately experienced, Experienced, Elementary schools, Texas, STAAR

DIFFERENCES IN TEXAS ELEMENTARY SCHOOL ACCOUNTABILITY RATINGS AS A FUNCTION OF PRINCIPAL EXPERIENCE

The role of the school principal is very complex, often poorly defined from school district to school district and even from school campus to school campus. In fact, the principal's role has expanded to include more instructionally focused duties (Kraft & Gilmour, 2016; Neumerski, Grissom, Drake, Rubin). With the beginnings of No Child Left Behind Act (2001), the fact that principals were now being held accountable for adequate yearly progress added to the pressures of their position. These increased work demands and accountability requirements resulted in new principals leaving the profession in large numbers, especially in urban school communities (Beteille, Kalogrides, & Loeb 2012). More than one fifth of first year principals exited the principalship within two years (School Leaders Network, 2012). Given the increased stresses, many principals have reported a lack of ongoing support and development from their school districts (School Leaders Network, 2012).

Although the link between principal experience and student achievement has been deemed to be indirect in nature, schools that lost a principal after just one year underperformed in the second year (School Leaders Network, 2012). In a recent investigation, Babo and Pastma (2017) examined the influence of principal tenure on student academic performance through an analysis of data from 172 elementary schools in New Jersey. They established the presence of statistically significant relationships between principal tenure and overall student achievement. In a similar study from Georgia, Huff et al. (2011) determined that principal tenure did not have a statistically significant effect on student achievement, but principal experience did have an effect

when controlled for other school variables such as student economic status. One of the salient findings from both studies was that school districts needed to hire and retain experienced educators for principal vacancies, taking them from the classrooms where they are more often effective teachers.

Huff et al. (2011) conducted a study in which they examined the relationship of principal tenure, stability, and experience with middle school achievement. In Georgia, public-school districts were facing a tremendous principal shortage. Huff et al. (2011) revealed that principal tenure and stability did not statistically significantly affect middle school achievement. Regarding principal experience, however, student achievement was positively correlated. Schools with lower principal turnover had higher student achievement than those schools that had higher principal turnover.

School districts are making attempts to mitigate the effects of principal turnover by distributing leadership in the schools (Leithwood, Mascall, & Strauss, 2009). Mascall and Leithwood (2010) analyzed responses to a teacher and principal survey as well as achievement data from school campuses. In school campuses and school districts with high principal turnover, Mascall and Leithwood (2010) determined that a distribution of duties mitigated some of the negative consequences of turnover. This distribution of duties was highly influenced by the principal, the existing school culture, and contributed to the overall school improvement efforts. When distribution of leadership was coordinated and implemented, some of the negative consequences of principal turnover appeared to be mitigated. Principals have substantial ownership in the distribution of leadership on their campuses. This burden is often placed on a new principal who is

learning the culture and traditions of the campus. One vital activity for the school district must be the provision of guidance and support during principal transition.

With the increasing numbers of principal departures, understanding the reasons for such leadership departures is vital to addressing the problem. Tekleselassie and Villarreal (2011), in an analysis of the transitional career behaviors of school principals, examined how individual, school, and the conditions of the workplace influenced intentions to transfer among school principals in the United States. Revealed in the data analyses were several major trends. First, characteristics were identified such as gender, age, salary, and job satisfaction that might have commonly influenced mobility and departure. Mobility was also determined to be strongly related to working in urban areas, work-week hours, and professional development. Schools that had high principal turnover experienced undesirable outcomes such as the inability to grow and sustain improvements and change (Tekleselassie & Villarreal, 2011).

Principal exits were also highly influenced by the sanctions-based accountability measures in the No Child Left Behind Act (2001). Public schools were required by this law to make adequate yearly progress in reading and mathematics for all student subgroups (Mitani, 2018). Schools, along with their principals, faced scrutiny as the results from these assessments were released to the public. Continuous failure led to measures such as a replacement of the staff, state takeover of the school, or even closure. Mitani (2018) determined that the No Child Left Behind Act sanctions were positively associated with principal job stress, turnover rates, and transfer rates. The hope was that the new federal law, the Every Student Succeeds Act, would offer more support for principals. The Every Student Succeeds Act does address leadership retention through

funding allocations. Under Title II, Part A, districts can reserve up to 3% of funds to support principals through activities such as coaching or mentoring for school leaders (Grossman & Nagler, 2019).

Another possible factor contributing to principal turnover, according to researchers in California (Young, Young, Okhremtchouk, & Castaneda, 2009), was the relationship with principal compensation. Tran (2017) examined this relationship between high school principal pay satisfaction and turnover intentions. Using a pay satisfaction questionnaire, Tran received responses from over 150 high school principals. Congruent with a previous research investigation conducted by Baker, Punswick, and Belt (2010), principals who were not satisfied with their pay were more likely to seek other jobs. This relationship was especially important considering legislation in many states that incentivized principals for student achievement scores rather than longevity. Baker et al. (2010) highlighted the importance of pay as a contributor of principal turnover.

Many principals have reported a lack of ongoing support and development from their school districts (School Leaders Network, 2012). More than one fifth of first year principals left the principalship within two years (School Leaders Network, 2012). Goldring, Taie, and Owens (2014) revealed, in a national sample of private and public school principals from 2011 to 2012, that 6% of principals moved to a new school and 12% left the principalship altogether. As accountability pressures increased under the No Child Left Behind Act (2001), even higher rates of principal departures occurred at campuses that did not meet Adequate Yearly Progress (School Leaders Network, 2012).

Fullan (2001) revealed that it takes five to seven years for improvement to take hold in a school and principal churn resets the clock on these efforts.

As stated previously, principal tenure affects students from poverty at a higher rate than more affluent communities. The frequency of principal turnover was statistically significantly greater for urban schools with high numbers of students of color students and high levels of poverty (Sturgis, Shiflett, & Tanner, 2017). In their study, principals with two or more years of principal experience had a positive influence on student outcomes. Unfortunately, Sturgis et al. (2017) revealed the difficulty of retaining highly effective principals at low-performing schools. Beteille et al. (2012) concluded that many new principals used their first position at a low-performing school as a stepping-stone to future promotions. Consequently, they recommended hiring experienced principals at low-performing schools rather than hiring first year principals.

In contrast to other researchers, Boyce and Bowers (2016) investigated the extent to which different types, or sub-groups, of principals exited their schools. Using the 2007-2008 Schools and Staffing Survey and the 2008-2009 Principal Follow-up Survey from the National Center for Education Statistics, Boyce and Bowers (2016) explored the factors that influence principal turnover between sub-groups of exiting principals. Tekleselassie and Villarreal (2011) laid the groundwork for Boyce and Bowers, who discovered some contrasting results. Specifically, when there were culture and climate problems that occurred, this one criterion was a clear factor in distinguishing satisfied and disaffected principals who subsequently exited their schools.

In respect to the effects of poverty on principal turnover, Branch et al. (2013) focused their research on Texas schools and reported that schools with higher percentages

of students in poverty were more likely to have first-year principals than schools serving higher percentages of students who were not in poverty. Texas schools with higher percentages of students in poverty were also less likely to have principals at the same school for at least six years than schools with less disadvantaged student populations.

Further adding to the pressures that principal experience, The Texas Education Agency assigns accountability ratings annually to campuses and school districts. These ratings are predominantly based on student performance on standardized tests and graduation rates. Prior to the 2018-2019 school year, schools and school districts had been assigned two accountability labels: *Met Standard* or *Improvement Required*. The *Met Standard* label indicated acceptable performance and the *Improvement* Required label indicated unacceptable performance. During this same time, to receive a Met Standard or Met Alternative Standard rating, a district or campus must have met targets on at least three indices: Index 1 or Index 2 and Index 3 and Index 4. The ratings during the years prior to 2018-2019 school year were in four indices or domains: student achievement, student progress, efforts to close the achievement gap, and postsecondary readiness.

Under House Bill 22 and beginning in the 2018-2019 school years, schools and districts were assigned letter grades, with F representing a school or district under state sanctions. A–F letter grades are described as follows: A = exemplary performance; B = recognized performance; C = acceptable performance; D = performance that needs improvement; F = unacceptable performance. A–F letter grades are to be given for three domains: Student Achievement, School Progress, and Closing the Gaps (TEA Accountability Manual, 2017). Overall A–F letter grade will be calculated as follows:

Considers best of Student Achievement or School Progress, unless the district or campus receives an F in either domain, in which case the district or campus may not be assigned a rating higher than a B for the composite for the two domains; The Closing the Gaps domain makes up at least 30% of the overall rating. Districts received an A–F rating beginning in 2018 and campuses began to receive an A–F rating in 2019.

Statement of the Problem

Principal turnover is becoming an increasing problem in the United States and the reasons are multifaceted (Burkhauser et al., 2012; Mitani, 2018). Baby boomer principals have reached retirement age; increased demands for reform based on accountability standards exists; and the expansion of the role of principal includes a demand for instructional leaders more than managers (Mascall & Leithwood, 2010). As a result, the responsibilities of principals have changed, and the job has become far more complex than in the past (Harris Interactive, 2012). Examined in several studies (e.g., Babo & Pastma, 2017; Huff et al., 2011; Norton, 2002) was the relationship between principal retention and student achievement. For many of these studies, the principal's length of service substantially influenced student performance and improved the culture and climate of the building. Although a multitude of factors influence a principal's intentions to change schools or depart from the profession altogether, school districts are under immense pressures to increase achievement scores. Taking into account that 12% of first year principals in high needs school districts leave after their first year on the job, school districts and principal preparation programs must address the factors that lead to departure and work to identify early the characteristics that lead to an effective and stable principalship (Burkhauser et al., 2012).

Purpose of the Study

The purpose of this study was to examine the extent to which differences were present in Texas elementary school accountability ratings as a function of campus principals' average years of experience. The accountability ratings derive from the STAAR assessments and focused on elementary schools that have Grades 4 and 5 students. Determining the factors that impact principal tenure, such as reading and mathematics achievement, can assist school district leaders in recruiting, developing, and retaining new campus principals.

Significance of the Study

Extensive research exists regarding the influence of principals on student achievement (Babo & Postma, 2017; Huff et al., 2011; Seigrist, Weeks). Many researchers (Mascall & Leithwood, 2011; School Leaders Network, 2014; Tekleselassie & Villarreal, 2011) have reported data related to principal turnover. As a result of this study, school district administrators may be presented with evidence to craft differentiated support systems and tools to help new principals to grow and develop their skills. School district leaders and policymakers may be influenced to create layers of support to help seasoned principals to manage their workloads without burning out. Furthermore, leaders of education institutions may be motivated to institute practical, hands-on training to those individuals who are entering positions of educational leadership. Given the importance of principal effectiveness to the school culture and academic achievement levels, it is imperative that district leaders comprehend the influence of principal experience on student achievement and the school's ability to meet state and federal accountability targets. By reviewing the recommendations provided

from this study, district and state education leaders may determine areas for further strengthening in their districts through principal coaching, training, and incentive pay systems. Finally, state legislators and the Texas Education Agency may be influenced to provide funding for improved principal training and resources to support campus level administrators and teachers who must maintain high levels of student achievement.

Research Questions

The following research question were addressed in this study: (a) What effect does the campus principals' average years of experience have on a Texas K-5 elementary school Accountability Ratings?; and (b) What trend, if any, exist for the Texas K-5 elementary school Accountability Ratings by the campus principals' average years of experience? These questions were analyzed for the 2017-2018 and 2018-2019 school years.

Method

Research Design

A non-experimental, causal-comparative research design (Creswell, 2014; Johnson & Christensen, 2020) was used for this study. In this investigation, statewide archival data was obtained from the Texas Education Agency. The data included campus principals' average years of experience and the overall accountability rating of the K-5 campuses. The independent variable in this study was the average years of experience of all the campus principals, and the dependent variable was K-5 elementary school accountability ratings. For the 2017-2018 school year, schools were rated as "Met Standard" or "Improvement Required". For the 2018-2019 school year, schools were rated using a letter grading system A-F. Both the school accountability ratings and the

average campus principals' years of experience had already occurred. Therefore, neither the independent variable nor the dependent variables can be manipulated (Johnson & Christensen, 2020).

Participants and Instrumentation

Campus data were analyzed from all Texas public K-5 elementary schools in the 2017-2018 and the 2018-2019 school years. Archival data were downloaded to excel files from the Texas Academic Performance Report located on the Texas Education Agency Website, and the excel files were converted to *Statistical Package for the Social Sciences* data files. Data were then analyzed for the Campus accountability status by the principals' years of experience. For technical information regarding score reliability and validity of the TAPR data, readers are directed to the website at https://rptsvrl.tea.texas.gov/perfreport/tapr/2017/download.html

Data from the 2017-2018 and 2018-2019 school years were analyzed. For this study, only data from public elementary schools configured with Kindergarten through Grade 5 in the State of Texas were analyzed. Participants in this study were principals of traditional K-5 elementary public schools during the 2017-2018 and 2018-2019 school years. For the purposes of this study, Experienced Principals represented the average of all principals on a campus with more than 10 years of experience. Moderately Experienced Principals represented the average of all principals on a campus with 5-10 years of experience, and the Inexperienced Principals represented the average of all principals on a campus with less than 5 years of experience. The principals' average years of experience were defined as the number of completed years of experience as a principal, regardless of district or interruption in service. These amounts were added

together and divided by the number of all principals reported for the campus (Texas Academic Performance Report Glossary, 2019, 2020).

Results

To address whether differences were present in accountability status (i.e., Met Standard, Improvement Required) by principal experience (i.e., Experienced, Moderately Experienced, and Inexperienced), Pearson chi-square procedures were conducted. This statistical method was the optimal statistical procedure because of the presence of frequency data for the three levels of principal experience (i.e., Experienced, Moderately Experienced, Inexperienced) and for the school accountability status. When both the independent variable and the dependent variables are nominal in nature, Pearson chi-squares are the statistical technique of choice (Slate & Rojas-LeBouef, 2011). With a large sample size, the criteria for using Pearson chi-squares were met.

Concerning the 2017-2018 school year, the result approached but did not reach the conventional level of statistical significance, $\chi^2(2) = 5.45$, p = .065, a below small effect size, Cramer's V of .04 (Cohen, 1988). As delineated in Table 2.1, Inexperienced principals were more than twice as likely to have led Improvement Required schools than were Experienced principals. Moderately Experienced principals were more than one percentage point less likely than Inexperienced principals to have led schools that were labeled Improvement Required. Table 2.1 contains the descriptive statistics for this analysis.

Insert Table 2.1 about here

With respect to the 2018-2019 school year, a statistically significant result was revealed, $\chi^2(6) = 22.53$, p < .001, a below small effect size, Cramer's V of .06 (Cohen, 1988). As revealed in Table 2.2, a higher percentage of D rated schools were led by Inexperienced Principals, 8%, than by Experienced Principals, 5%. Of the A rated schools, a higher percentage of them were led by Experienced Principals, nearly 30%, than by Moderately Experienced Principals, nearly 24%. The lowest percentage of A rated schools were led by Inexperienced Principals, 21%. Delineated in Table 2.2 are the descriptive statistics for these analyses.

Insert Table 2.2 about here

Discussion

Analyzed in this investigation was the extent to which differences were present in the school accountability status of elementary schools in Texas by the average years of experience. Two years of Texas statewide accountability results were examined for principals in three categories: Inexperienced, Moderately Experienced, and Experienced. Concerning both school years, the difference in accountability status of the elementary schools was statistically significantly related to the average years of experience of the principal. Effect sizes for the school accountability status were small each year at each category of principal experience.

In each of the two years analyzed, higher percentages of Inexperienced principals were leaders of schools that were rated as Improvement Required or a D than Experienced or Moderately Experienced principals. In the State of Texas in the 2017-

2018 school year, 36 Inexperienced principals led schools in the Improvement Required category in contrast to only 7 schools in this category being led by Experienced principals. Similarly, in the 2018-2019 school year, 101 D rated schools were led by Inexperienced principals in contrast to only 28 schools in this category being led by Experienced principals. Experienced principals were 10 percentage points more likely to have led schools rated as A or B than Inexperienced principals. The gap between Moderately Experienced principals and Inexperienced principals was twice as large as the gap between Moderately Experienced and Experienced principals. Portrayed in Figure 2.1 are the results of A-rated elementary schools by principal years of experience.

Insert Figure 2.1 about here

In each of the two years, the total number of Experienced principals was more than twice the total number of Inexperienced principals. Experienced principals were more likely to have led higher-rated schools, followed by Moderately Experienced, and then by Inexperienced principals. Depicted in Figure 2.2 are the results of the elementary schools that were rated Improvement Required for the 2017-2018 school year by average years of principal experience.

Insert Figure 2.2 about here

Connections with Existing Literature

In this multiyear, statewide analysis, connections were established between principal experience and the accountability status of the campus. In previous articles, researchers (e.g., Babo & Postma, 2017; Huff et al., 2011) have documented statistically significant differences between principal tenure and experience and the academic achievement of the students in the school. Results delineated herein were consistent across grade levels and ethnic/racial backgrounds.

Researchers (Beteille et al., 2012; Branch et al., 2013; Sturgis et al., 2017) have examined links between schools with higher percentages of students from poverty and principal turnover. Schools with higher rates of principal turnover underperformed those with more stable principals (School Leaders Network, 2012; Tekleselassie & Villarreal, 2011). Increased demands on the principal were influenced by more stringent sanctions-based accountability measures (Mitani, 2018) and a lack of support and mentorship in the early years on the job (Grossman & Nagler, 2019).

Implications for Policy and Practice

Based on the analysis of two years of Texas statewide data, several implications for policy and for practice can be recommended. With respect to policy implications, during the fall of 2013, the State of Texas published a document outlining principal standards. From this, a new evaluation tool for principals, the Texas Principal Evaluation and Support System was established which focused on a system of continuous professional growth (www.tpess.org, 2020). Although this evaluation system is designed to allow principals opportunities to reflect on their practice and implement best practices, it has been implemented sporadically and is highly subjective, relying heavily on the

experience and time given from the principal supervisor. Few to no requirements have been present from the Texas Education Agency or the state legislature in regard to principal support and mentorship programs. With the upcoming legislative session, funding for quality, effective principal support programs should be allocated.

Regarding implications for practice, school districts should evaluate their own principal turnover, especially in schools with higher percentages of students from poverty. Empowering superintendents and principal supervisors with training in coaching and development and providing actionable feedback is necessary to ensure principal turnover rates, especially in urban schools, do not increase in future school years. Furthermore, school district leaders should assign experienced mentors to every first year principal and provide release time and stipends to encourage greater collaboration and commitment.

Recommendations for Future Research

Based on the results of this empirical multiyear investigation, several recommendations for future research can be made. First, this study was conducted on data on only elementary schools. The degree to which findings obtained herein would be generalizable to secondary schools is not known. Accordingly, researchers are encouraged to examine the accountability status based on average principals' years of experience at middle schools and at high schools. Second, because accountability status at the elementary level is based on only STAAR performance, researchers should examine the degree to which principals' years of experience is related to other accountability measures at the secondary level such as College, Career, and Military Readiness and graduation rates. Third, researchers should ascertain the extent to which

results from this Texas statewide analysis would be generalizable to principal turnover and accountability status in other states. The extent to which the results of this investigation can be generalized to other states is unknown. Finally, researchers are encouraged to conduct longitudinal studies in which they follow effective principals of urban campuses who remain at their campuses for longer than five years. The results would allow researchers to analyze the conditions and resources necessary and the leadership qualities that affect principals' decisions to remain.

Conclusion

The purpose of this research investigation was to determine the degree to which differences were present in the school accountability status of Texas elementary schools as a function of the principal average years of experience. Inferential statistical procedures for both school years revealed accountability status of elementary schools was statistically significantly related to the average years of experience of the principal. Elementary schools with Experienced principals performed at the Met Standard or achieved A status more than schools with Moderately Experienced or Inexperienced principals. As such, principal experience was clearly established to be positively related ton school accountability results. School district leaders and education policymakers are encouraged to develop programs to retain principals. As clearly established in this empirical investigation, principal experience matters.

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Table 2.1

Frequencies and Percentages for the Elementary Campus Accountability Status by the Principals' Years of Experience for the 2017-2018 School Year

	Met Standard		Improvement Required		
Principal Experience Groups	n of	%	n of	%	
	schools		schools		
Inexperienced	1,268	97.24	36	2.76	
Moderately Experienced	914	98.28	16	1.72	
Experienced	559	98.76	7	1.24	

Table 2.2

Frequencies and Percentages for the Elementary Campus Accountability Status by the

Principals' Years of Experience for the 2018-2019 School Year

	Inexperienced		Moderately		Experienced			
	Experienced							
Campus	n of	%	n of	%	n of	%		
Accountability	schools		schools		schools			
Status								
A	273	21.6	219	23.7	165	29.9		
В	489	38.7	367	39.6	223	40.4		
С	401	31.7	273	29.5	136	24.6		
D	101	8.0	67	7.2	28	5.1		

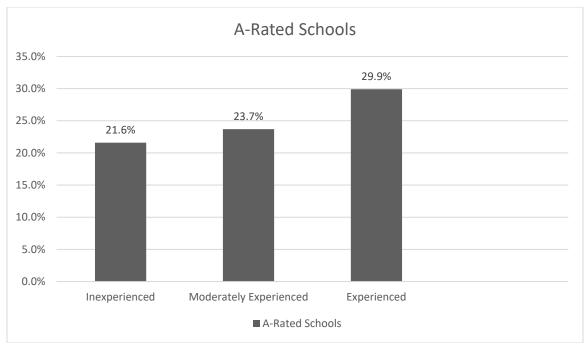


Figure 2.1. Texas elementary schools rated an A by the average years of experience of the principal for the 2018-2019 school year.

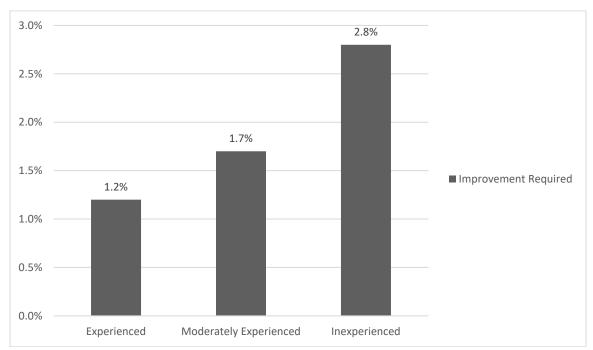


Figure 2.2. Texas elementary school accountability status by the average years of experience of the principal for the 2017-2018 school year.

CHAPTER III

DIFFERENCES IN READING PROGRESS MEASURES FOR GRADES 4 AND 5

TEXAS STUDENTS AS A FUNCTION OF THE CAMPUS PRINCIPALS' AVERAGE

YEARS OF EXPERIENCE

This dissertation follows the style and format of Research in the Schools (RITS).

Abstract

In this investigation, the degree to which differences were present in the STAAR Reading progress levels of Grade 4 and Grade 5 elementary students in Texas as a function of the average numbers of years of the campus principal was addressed. Archival data from the Texas Education Agency were analyzed for the 2017-2018 and 2018-2019 school years on the State of Texas Assessment of Academic Readiness. Statistically significant differences were present between Inexperienced, Moderately Experienced, and Experienced principals on the expected or accelerated growth for Grade 4 STAAR Reading students but were not present for the Grade 5 STAAR Reading results. The percentages of students who met expected or accelerated growth on the STAAR Reading measure were lowest in school with Inexperienced principals. Implications for policy and practice, as well as recommendations for future research are provided.

Keywords: Progress levels, Growth levels, Inexperienced, Moderately experienced, Experienced, Elementary schools, Texas, STAAR Reading assessment

DIFFERENCES IN READING PROGRESS MEASURES FOR GRADE 4 AND GRADE 5 TEXAS STUDENTS AS A FUNCTION OF THE CAMPUS PRINCIPALS' AVERAGE YEARS OF EXPERIENCE

For the most part, the skills needed to become a highly effective leader are learned over time. Effective school leaders need to learn and develop the practices, beliefs, and strategies to create and to sustain highly effective schools in which positive student outcomes occur. Schools need experienced, effective leaders who will remain at those schools longer than one or two years. However, the turnover statistics for principals are alarming. Nearly one quarter of the principals in the United States exit their schools every year, and one half of new principals quit by their third year (School Leaders Network, 2014). The need for districts to retain effective principals, especially those principals in disadvantaged communities, has never been greater.

School principals are balancing a myriad of responsibilities including managerial, instructional, and community-based ones. In many communities and school districts, principals are given the sole responsibility for the success or failure of the schools they lead. Although researchers (e.g., Metropolitan Life Insurance Company, 2012), have revealed for years that an effective teacher has the highest effect on student achievement strong principals can contribute up to 25% of the entire school influence on student academic achievement (Marzano, Waters, & McNulty, 2005). School district leaders need to take notice, as well, as hiring new principals can cost districts on average \$75,000 to recruit, hire, prepare, and mentor new principals (Schools Leaders Network, 2014).

The lessons learned through experience are invaluable for effective principals and become part of their leadership toolkit as they seek skills and strategies to improve their craft (Liebowitz & Porter, 2019). These innovative and reflective leaders create substantial changes each year. Seashore-Louis, Dretzke, and Wahlstrom (2010) revealed that it can take an average of five years to mobilize a vision for the school, coach and develop the teachers, and establish core beliefs to improve student performance.

Additionally, experienced principals can coach ineffective teachers and recruit talented teachers, thus changing academic trajectories for students (Horng, Klasik, & Loeb, 2010).

Effective principals can assist in closing achievement gaps and ensure that students who are behind surpass the expected one year of growth annually (Branch, Hanushek, & Rivkin, 2012). In fact, the most effective school leaders can accelerate student growth by as much as seven additional months in a single year, which is greater growth than that created by less effective principals (Branch et al., 2013). Therefore, the most effective principals need to be supported and retained so they can implement and maintain school improvement efforts that accelerate progress for all students and, one day, eliminate the achievement gaps (School Leaders Network, 2014).

School leaders have a myriad of complex and varied tasks—managerial and instructional (Hollenbeck & Rieckhoff, 2014) and this expanded workload and increased responsibilities have caused many principals to leave the position and the profession at an alarming rate (Mascall & Leithwood, 2010; School Leaders Network, 2014). Three fourths of all principals stated that the role has become far too complex with these new responsibilities and the increased accountability (Harris Interactive, 2012). Moreover, nearly 50% reported feeling an enormous amount of stress several days a week (Harris Interactive, 2012). Principals are leaving their positions because of the responsibilities of managing budgets, resources and staff while also having the meet the varied needs of the

learners on their campuses. Research studies in which linkages have been made with school leadership and sustainable school reform efforts that improve outcomes for all students have grown exponentially over the past 15 years (Cummins, 2015). Because principal influence on student achievement is often indirect and the effects are not immediately evident, school district administrators may overlook the reasons why schools are not achieving at high levels or sustaining progress (Babo & Postma, 2017; Huff et al., 2011; Ni, Sun, & Rorrer, 2015).

Principals operate their schools in much the same fashion as a conductor leads an orchestra. From setting a vision for success to recruiting and hiring staff, the school leaders handle many components of the organization that, when added together, becomes a critical mass of practices, strategies, and school improvement efforts that lead to improvement, or lack of improvement, in student achievement (Manna, 2015). Taking these factors into consideration, the culture and climate of a school is greatly influenced by principals creating and supporting teachers so they feel they are a part of a community of professionals (Cummins, 2015). Also, effective principals enable their leadership teams and teacher leaders to strengthen collaborative practices, instructional strategies, and other initiatives that will lead to higher student achievement and post-secondary success. Through this shared leadership, principals strengthen their ability to align their vision to action (Hollenbeck & Rieckhoff, 2014). Furthermore, organizational alignment can only be achieved when principals identify the leaders on campus, develop strong working relationships, and experience longer tenure on their campuses.

The principal is held accountable for everything that happens in the building, from achievement to discipline to staff turnover. Researchers (e.g., Babo & Postma,

2017) have established that school leader continuity, defined as one or two principals serving during a 10-year period, has a small yet statistically significant association with overall student performance when factoring for other influences such as demographics and poverty. Yet, in the United States, one in five principals leave their school after just one year (Burkhauser, Gates, Hamilton, & Ikemoto, 2012). Huff et al. (2011) revealed that, although principal tenure did not have a statistically significant effect on student achievement at the middle school level, principal experience and stability may affect student achievement. The more experience an incoming principal brought to a campus correlated positively to higher student achievement in reading and mathematics (Huff et al., 2011).

Principal turnover has a disruptive result on students, particularly on students in high poverty areas. Beteille et al. (2011) compared principal tenure with student achievement gains and determined that principal tenure is more highly correlated with schools with student from poverty than with schools with students from less or limited poverty. Interestingly, schools with higher principal turnover often are in areas that serve a higher percentage of students from poverty. Principal turnover in these schools has more detrimental effects than principal turnover in more advantaged schools (Beteille et al., 2011).

Just as principals have influence over the culture and climate of a building, so, too, must they lead focused literacy reform efforts (Hollenbeck & Rieckhoff, 2014). Yet, a principal's influence on literacy, similar to overall improvements in student achievement, has been documented to be indirect in nature (Fletcher, Grimley, Greenwood, & Parkhill, 2011; Mora-Whitehurst, 2013). Principals must play a central

role in school wide literacy reform on campuses (Hollenbeck & Rieckhoff, 2014) because as the instructional leaders they have been tasked with monitoring instruction on their campuses (Reeves, 2008). In the era of accountability, they must identify specific practices and techniques for improving the level of student achievement, specifically in literacy, that has been important to all stakeholders (Gieselmann, 2009).

Unfortunately, many schools have not experienced literacy successes and much of this lack of growth in reading scores is due to the inability of school leaders and teachers to implement consistent, high-quality literacy programs and practices (Mora-Whitehurst, 2013; Reeves, 2008). This stagnation in reading progress may be caused by a lack of clear understandings regarding effective literacy practices as well as inconsistent implementation and monitoring of literacy programs and initiatives (Reeves, 2008). Principals, who take a whole-school approach toward improving reading, including targeted professional development of staff, raise the overall literacy achievement of students (Fletcher et al., 2011). Another way principals can lead the way with literacy is by promoting and providing high-quality pre-service and professional development for reading specialists and teachers (Hollenbeck & Rieckhoff, 2014). Whether the school is a proponent of whole language, phonics, or the balanced literacy approach, an effective school leader can have an effect on student reading by supporting the growth and literacy development of all teachers as well as all students on the campus (Ediger, 2008). Supporting this growth of literacy takes time and would be greatly affected with each successive leadership change.

Principals' understanding of the reading programs, coupled with their ability to act as instructional and visionary leaders, may be a strong influence on students' reading

outcomes (Mora-Whitehurst, 2013). Mora-Whitehurst (2013) confirmed that visionary leadership with qualities such as consistency, caring, confidence, and empowerment, were related to improvements in reading scores at the upper elementary grades. The relationship between elementary principals' visionary leadership and reading performance, although indirect, may provide valuable insight into the organizational conditions and instructional quality that is required for reading progress (Mora-Whitehurst, 2013).

One leadership practice that is being investigated as a lever for school improvement efforts is the ability of the principal to engage in data-driven practices (Yoon, 2016). These data-focused strategies include the ways in which principals use student data and inform teachers about these data. The successful implementation of data-informed practices is a vital component to the school's successful and sustainable reform efforts. Yoon (2016) reported the link between principals' data-driven practices on reading achievement was not statistically significant, supporting the indirect relationship between student learning and leadership practices. Nevertheless, from the same study, when teachers were reported to buy into the practices and programs on a campus, students in those schools experienced higher reading achievement than in counterpart schools with less teacher buy-in (Yoon, 2016).

In Texas public schools, the State of Texas Assessments of Academic Readiness (STAAR) tests measure a variety of components including achievement levels, progress measures, and Lexile levels. Progress is measured as a student's gains score that is the difference between the student's score the prior year and the student's score in the current year. An individual student's progress is categorized as *Did Not Meet, Met,* or *Exceeded*.

Furthermore, the state has provided an additional designation called the On-Track measure which provides information about whether a student is on track to be at or above the Meets Grade Level performance standard in future years. A school district or individual school's progress score is based on expected or accelerated growth which is the percentage of all assessments that met or exceeded the STAAR progress measure expectations (Texas Academic Performance Report Glossary, 2017).

The State of Texas adopted a new standardized testing system in 2012. The State of Texas Assessments of Academic Readiness replaced the Texas Assessment of Knowledge and Skills given to students from 2003 to 2013. According to the Texas Education Agency (2015), the STAAR test was supposed to be more rigorous and more comprehensive than the previous state assessment. The STAAR test was designed to measure what students were learning in each grade and whether they were ready for the next grade. Not new to Texas was the pressure for schools to perform well on these standardized assessments. Much of this burden was placed on principals and teachers who were tasked with raising test scores regardless of demographics, location, or condition of the school community (DeMatthews, 2014). Consequently, the work conditions seemed insurmountable at schools serving low-income, highly challenging students coupled with the increased pressure to increase student performance (School Leaders Network, 2014).

The new state assessment (i.e., STAAR), unlike the previous state assessment, was not only focused on measuring student achievement; it also weighted a school's accountability rating based on student progress measures. For the STAAR tests, progress was measured as a student's gain score, or the difference between the score a student

achieved in the prior year and the score a student achieved in the current year. Individual student progress was then categorized as *Did Not Meet Progress Measure*, *Met Progress Measure*, or *Exceeded the Progress Measure* (TEA online, 2020). This change in the accountability measures was implemented in an attempt to level the playing field for schools serving large numbers of low-income students, by giving weight to individual students and schools who met or exceeded individual growth targets, thus, closing the achievement gaps between high and low income students and schools.

Statement of the Problem

Federal and state laws over the past 25 years have focused efforts on ensuring that all students meet certain thresholds of performance each year. Under the No Child Left Behind Act, 100% of students in a school were expected to pass an exam in reading and mathematics by 2014 or schools and districts would be sanctioned and held accountable. The intent of the law was to close the ever-widening achievement gap and to remain competitive in a global society (Klein, 2015). For the first time schools were not only held accountable for achievement scores, but also for student growth. The term Adequate Yearly Progress became synonymous with accountability as the bar to meet standards rose every year, thus causing an increasing number of schools to fall under penalty, possible closure, and subsequently widening the achievement gaps (Yeagley, 2014). Despite this focus on student achievement and testing, no evidence was evident that the No Child Left Behind Act increased reading achievement at the elementary levels (Dee & Jacob, 2011). Additionally, one unintended effect of the No Child Left Behind Act sanctions was a higher level of principal job stress and a higher principal turnover rate (Mitani, 2018).

Under the current Every Student Succeeds Act (2015) districts and schools continued to be held accountable for achievement scores. Moreover, an increased emphasis was placed on ensuring that the most struggling schools show progress with all demographic groups of students. With this law, states had to create challenging academic standards in reading, mathematics, and science. Also, states had to apply these standards to all students, including those students with learning and attention issues (Saultz, Schneider, & McGovern, 2014).

Purpose of the Study

The purpose of this study was to examine the degree to which differences were present in the reading progress levels of Grade 4 elementary students in Texas as a function of the average number years of the campus principals' experience. The second purpose of the study was to examine the degree to which differences might be present in the reading progress levels of Grade 5 elementary students in Texas as a function of the average number years of principals' experience, specifically, the percentage of students who were at expected or accelerated growth at the campus. Data from the 2017-2018 and 2018-2019 school years were analyzed.

Significance of the Study

A considerable number of research studies exist in which researchers (Babo & Postma, 2017; Huff et al., 2011; Mascall & Leithwood, 2010; Miller, 2013; Ni et al., 2015) have linked principal experience and turnover to student achievement.

Nevertheless, a few researchers (Mackey, Pitcher, & Decman, 2006; Miller, 2013; Valentine & Prater, 2011) have focused on the association of principal tenure to growth in reading achievement scores. Using principal data newly added to the state dataset, the

link between leadership experience and reading growth will be analyzed at the upper elementary levels. Practical applications to school district leaders, especially when deciding who to hire or transfer to a vacant principal position, may be revealed as a result of this study. Furthermore, if more years of experience and tenure are associated with higher student reading growth, school districts may want to examine ways in which to retain effective principals through incentives, bonuses, or encouraging mentorships for less experienced principals.

Research Questions

The following research questions were addressed in this study: (a) What is the difference in the percentage of students who achieved expected or accelerated growth in STAAR Reading for Grade 4 students as a function of the campus principals' average years of experience? and (b) What is the difference in the percentage of students who achieved expected or accelerated growth in STAAR Reading for Grade 5 students as a function of the campus principals' average years of experience?; (c) What trend, if any, is present in the percentage of expected or accelerated growth in STAAR Reading for Grade 4 students as a function of campus principals' average years of experience?; and (d) What trend, if any, is present in the percentage of expected or accelerated growth in STAAR Reading for Grade 5 students as a function of campus principals' average years of experience. These questions were analyzed for the 2017-2018 and 2018-2019 school years.

Method

Research Design

A non-experimental causal-comparative research design was present (Creswell, 2014; Johnson & Christensen, 2020). The independent variable cannot be manipulated, because of this type of non-experimental, causal comparative research. A statewide archival dataset was utilized to examine the progress of Texas elementary students in reading and the years of principals' experience. As such, both the student academic outcomes and the principals' average years of experience had already occurred.

Therefore, neither the independent variable nor the dependent variable were manipulated (Johnson & Christenson, 2020). The independent variable that was examined in this investigation were the average years of experience of campus principals. The dependent variables that were analyzed were the progress of elementary students in reading.

According to the Texas Academic Performance Report Glossary, progress was demonstrated based on the percentage of assessments that met or exceeded the STAAR progress measure expectations.

Participants and Instrumentation

The unit of analysis for this study was data obtained from elementary public schools in Texas. Participants in this study were principals of traditional elementary public schools during the 2017-2018 and 2018-2019 school years. Data analyzed herein were downloaded from the Texas Academic Performance Report. For the purposes of this study, principals of schools with Kindergarten through Grade 5 were labeled as elementary school principals.

Participants in this study were principals of traditional elementary public schools during the 2017-2018 and 2018-2019 school years. For the purposes of this study, principals of schools with Kindergarten through Grade 5 were labeled as elementary school principals. Additionally, Experienced Principals represented the average of all campus principals with more than 10 years of experience. Moderately Experienced Principals represented the average of all campus principals with 5-10 years of experience, and the Inexperienced Principals represented the average of all campus principals with less than 5 years of experience. The principals' average years of experience were defined as the number of completed years of experience as a principal, regardless of district or interruption in service. These amounts were added together and divided by the number of all principals reported for the campus (Texas Academic Performance Report Glossary, 2019).

Following the downloading of data from the Texas Academic Performance Report database, it was then imported into the Statistical Package for Social Sciences (SPSS) software program. After the Texas Academic Performance Report data file was converted into a SPSS data file, labels were given to relevant variables used in this investigation. Because student data were downloaded from the website of the Texas Education Agency, minimal errors in the data were assumed to be present. For technical information regarding score reliability and validity of the Texas Academic Performance Report data, readers are directed to the website at

https://rptsvr1.tea.texas.gov/perfreport/tapr/2017/download.html

Results

To determine whether statistically significant differences were present for Grade 4 students who scored at expected or accelerated growth by principal years of experience Analysis of Variance (ANOVA) procedures were calculated for each school year. Prior to these calculations, its underlying assumptions were checked. Although not all assumptions were met, Field (2009) contends that the parametric ANOVA procedure is sufficiently robust that these violations can be withstood. Accordingly, use of parametric ANOVA procedures was justified to address both research questions.

Grade 4 Reading Results

With respect to the 2017-2018 school year, a statistically significant difference was revealed, F(2, 2706) = 11.46, p < .001, partial $\eta^2 = .008$, a below small effect size (Cohen, 1988) in the percentage of Grade 4 students who demonstrated expected or accelerated growth on the STAAR Reading assessment by principal experience. Sheffe' post hoc procedures revealed that comparisons between all three principal experience groups were statistically significantly different. Grade 4 students in schools with Experienced principals were nearly 2 percentage points more likely to make expected or accelerated growth than Grade 4 students at schools led by Inexperienced principals. The difference between Inexperienced and Moderately Experienced principals showed a 1.5 percentage points difference in students who were at the expected or accelerated growth for the STAAR Reading assessment. Presented in Table 3.1 are the descriptive statistics for this analysis.

Insert Table 3.1 about here

The percentage of students who met the expected or accelerated growth status in Grade 4 reading during the 2017-2018 school year was highest at schools led by Experienced principals, followed schools led by Moderately Experienced principals. The lowest percentages of Grade 4 students who met the expected or accelerated growth status were at schools led by Inexperienced principals. A difference of 1.5 percentage points was present between Inexperienced and Moderately Experienced principals. The difference was over 2% for students who met the expected or accelerated growth on the STAAR Grade 4 Reading measure between Experienced principals and Inexperienced principals. Depicted in Figure 3.1 are the percentages of Grade 4 students who met the expected or accelerated growth on the STAAR Reading test by principal years of experience during the 2017-2018 school year.

Insert Figure 3.1 about here

Concerning the 2018-2019 school year, the ANOVA yielded a statistically significant difference, F(2, 1206) = 8.12, p < .001, partial $\eta^2 = .006$, a below small effect size (Cohen, 1988). Next, Scheffe post hocs were calculated to determine which pairwise combinations of principal experience differed from each other. Differences were present in the percentage of Grade 4 students who met the expected or accelerated STAAR growth measure in reading between each pair of principal years of experience groups,

with the exception of the Inexperienced and Experienced principals. Higher percentages of Grade 4 students enrolled in schools with Experienced principals demonstrated expected or accelerated growth on the STAAR Reading assessment than Grade 4 students enrolled in schools with Inexperienced or Moderately Experienced principals. Table 3.2 contains the descriptive statistics for this analysis.

Insert Table 3.2 about here

The percentage of students who met the expected or accelerated growth status in Grade 4 reading was highest at schools led by Experienced principals, followed by schools led by Moderately Experienced principals. The lowest percentages of Grade 4 students who met the expected or accelerated growth status were at schools led by Inexperienced principals. A difference of nearly 2% was present for students who met the expected or accelerated growth on the STAAR Grade 4 Reading measure between Experienced principals and Inexperienced principals. Illustrated in Figure 3.2 are the percentages of Grade 4 students who met the expected or accelerated growth on the STAAR Reading test by principal years of experience.

Insert Figure 3.2 about here

Grade 5 Reading Results

Regarding the 2017-2018 school year, a statistically significant difference was not revealed, F(2, 2187) = 0.39, p = .68 Similar percentages of Grade 5 students met the

expected or accelerated growth on the STAAR Reading test, regardless of their principal experience. Presented in Table 3.3 are the descriptive statistics for this analysis.

Insert Table 3.3 about here

With respect to the students who met the expected or accelerated growth status in Grade 5 reading during the 2017-2018 school year, students in schools with Moderately Experienced principals had the poorest performance, followed by students in schools with Inexperienced principals, and then by students in schools with Experienced principals. These differences, however, were not statistically significant. Depicted in Figure 3.3 are the percentages of Grade 5 students who met the expected or accelerated growth on the STAAR Reading test by principal years of experience during the 2017-2018 school year.

.....

Insert Figure 3.3 about here

With respect to the 2018-2019 school year, the ANOVA did not yield a statistically significant difference, F(2, 1285) = 0.33, p = .72. Similar percentages of Grade 5 students met the expected or accelerated STAAR growth measure in reading regardless of their principal experience. Table 3.4 contains the descriptive statistics for this analysis.

Insert Table 3.4 about here

Differences were consistent regarding gaps between each of the three principal experience categories. Concerning the Grade 5 STAAR Reading Reporting progress scores, students who met the expected or accelerated growth were nearly the same.

Depicted in Figure 3.4 are the results of the percentages of Grade 5 elementary students who met the expected or accelerated growth measure on the STAAR Reading assessment by principal years of experience for the 2018-2019 school year.

Insert Figure 3.4 about here

Discussion

Analyzed in this investigation was the extent to which differences were present in the percentage of Grade 4 and Grade 5 students who met the expected or accelerated growth measures on the STAAR Reading assessment in Texas by principal experience. Two years of Texas statewide accountability results were examined for principals in three categories: Inexperienced, Moderately Experienced, and Experienced. Concerning both school years, the percentage of Grade 4 students who met the Expected or Accelerated Growth levels on the Reading STAAR was statistically significantly related to the average years of experience of the principal, but it was not statistically significant to Grade 5 Reading STAAR. Effect sizes for these differences were below small.

In each of the two years analyzed, fewer Grade 4 students met the Expected or Accelerated Growth on the STAAR Reading assessment were at schools led by Inexperienced principals than students at schools led by Moderately Experienced or Experienced principals. Conversely, Grade 5 students in schools led by Moderately Experienced principals scored lower than students in schools with Inexperienced or Experienced principals.

Connections with Existing Literature

As revealed in this study, students in schools led by Inexperienced principals were less likely to achieve the expected or accelerated growth measures on the Grade 4 STAAR Reading assessment. In addition, students in schools with Experienced principals had a 2 percentage point higher rate of meeting or exceeding progress than those schools with Inexperienced principals. Nationally (e.g., Branch et al., 2012; Branch et al., 2013; Cummins, 2015) students in schools led by more experienced principals consistently achieve at higher rates than in schools with less experienced principals, congruent with the findings of this study.

Researchers (Babo & Postma, 2017; Manna, 2017) have examined links between student achievement and principal turnover. Principals are tasked with leading many reform efforts, specifically on increasing literacy outcomes which have led to mixed results (Fletcher et al., 2011; Hollenbeck & Rieckhoff, 2014; Mora-Whitehurst, 2013). Increased demands on the principal, such as sustaining or improving test scores, have made the role more complex, forcing many to leave the professional altogether (Cummins, 2015; Harris Interactive, 2012; School Leaders Network, 2014). The lack of

school leader continuity has been documented to have a statistically significant negative relationship with overall student performance (Burkhauser et al., 2012; Huff et al., 2011). Implications for Policy and Practice

Based on the results of this research study, several implications for policy and for practice can be suggested. With respect to policy implications, with the passage of House Bill 3 in the Texas Legislative Session of 2019, all Kindergarten through Grade 3 teachers and principals are required to attend a literacy achievement academy, also known as Reading Academies, by 2023. These professional development cohort sessions are focused on the science on teaching reading to improve reading outcomes for all Texas learners. Based on the Texas Academic Performance Report from 2019, less than half of all Grade 3 students were reading on grade level whereas 61% of Grade 4 students met or exceeded the growth needed for that school year. Continuing to educate and train campus leaders with reading academies, will ensure that instructionally-focused principals are present on every campus who can support teachers in the area of literacy.

With respect to implications for practice, school districts should provide resources and staff to support principals and teachers with best practices and strategies for literacy instruction. Principals have many competing initiatives and challenges to address every day. Providing guidance and trained staff to help initiate and sustain school improvement efforts in reading is necessary to achieve real gains for students.

Another strategy educational leaders can implement is to provide ongoing support and development to new and inexperienced principals to maintain and foster sustained commitment to their schools and the role. School district leaders should not only focus on creating and developing a strong principal pipeline of talented, trained school leaders,

but also on providing continued support in leadership development and practices for improving literacy. District leaders should engage principals in networks of their peers where they can learn from each other and provide one-to-one coaching support, when needed.

Recommendations for Future Research

Given the results of this multiyear, statewide investigation, several recommendations for future research can be made. This research study was conducted on data for only Grade 4 and Grade 5 students in Texas. Therefore, the degree to which findings obtained herein could be generalizable to other grade levels is not known. Researchers should analyze the reading progress of students based on principal turnover in other grade levels to determine if similar results are present. Next, researchers should ascertain the extent to which results from this Texas statewide analysis would be generalizable to schools in other states. The extent to which the results of this investigation can be generalized to other states is unknown. Additionally, researchers are encouraged to conduct longitudinal studies in which they follow principals who have demonstrated sustained student growth in reading achievement. The results would allow researchers to analyze the conditions and resources necessary to improve literacy outcomes for students. Finally, because only reading academic achievement as determined by the STAAR assessment was analyzed in this study, researchers are encouraged to conduct future studies to determine if similar trends are present in other subjects such as mathematics, science, or history.

Conclusion

In this multiyear analysis, the degree to which Grade 4 and Grade 5 progress in reading was related to principal experience (i.e., Experienced, Moderately Experienced, Inexperienced) was investigated. Specifically examined were the percentages of students in Texas elementary schools who met the expected or accelerated growth measures on the STAAR Reading assessment based on the principals' years of experience. Statistically significant results were present for Grade 4 students in reading but were not present for Grade 5 students. Grade 4 students in schools with Experienced principals were more likely to meet the Expected or Accelerated growth on the Reading STAAR than students in schools with Moderately Experienced or Inexperienced principals. With respect to the years analyzed in this study, Grade 5 students demonstrated higher growth on the reading assessment than Grade 4 students but did not reveal statistically significant differences based on principal experience. This discrepancy between the two grade levels may be a result of the Student Success Initiative which occurs in Grade 5 and allows students to take the assessment more than once if not successful.

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Table 3.1

Descriptive Statistics for the STAAR Grade 4 Students at Expected or Accelerated

Reading Progress by the Principal's Years of Experience for the 2017-2018 School Year

Principal Experience Groups	n of schools	М%	SD%
Inexperienced	1,252	58.37	9.67
Moderately Experienced	909	59.87	9.56
Experienced	548	60.52	10.33

Table 3.2

Descriptive Statistics for the STAAR Grade 4 Students at Expected or Accelerated

Reading Progress by the Principal's Years of Experience for the 2018-2019 School Year

Principal Experience Groups	n of schools	М%	SD%	
Inexperienced	1,258	58.60	9.71	
Moderately Experienced	915	59.47	9.46	
Experienced	543	60.58	10.18	

Table 3.3

Descriptive Statistics for the STAAR Grade 5 Students at Expected or Accelerated

Reading Progress by the Principal's Years of Experience for the 2017-2018 School Year

Principal Experience Groups	n of schools	М%	SD%
Inexperienced	1,302	77.19	7.45
Moderately Experienced	925	76.95	7.90
Experienced	566	77.27	7.74

Table 3.4

Descriptive Statistics for the STAAR Grade 5 Students at Expected or Accelerated

Reading Progress by the Principal's Years of Experience for the 2018-2019 School Year

Principal Experience Groups	n of schools	М%	SD%
Inexperienced	1,285	77.08	7.56
Moderately Experienced	925	77.12	7.73
Experienced	554	77.38	7.66

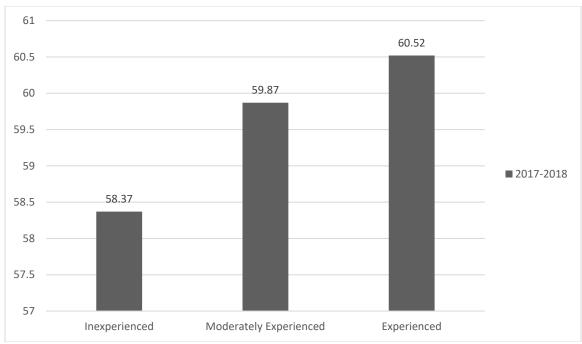


Figure 3.1. Percentages of Texas Grade 4 students who met the expected or accelerated growth standard on the STAAR Reading assessment by the average years of experience of the principal for the 2017-2018 school year.

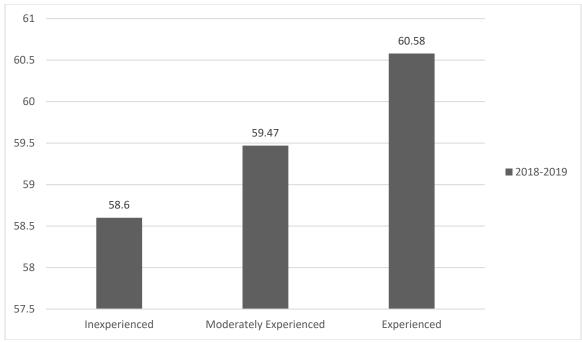


Figure 3.2. Percentages of Texas Grade 4 students who met the expected or accelerated growth standard on the STAAR Reading assessment by the average years of experience of the principal for the 2018-2029 school year.

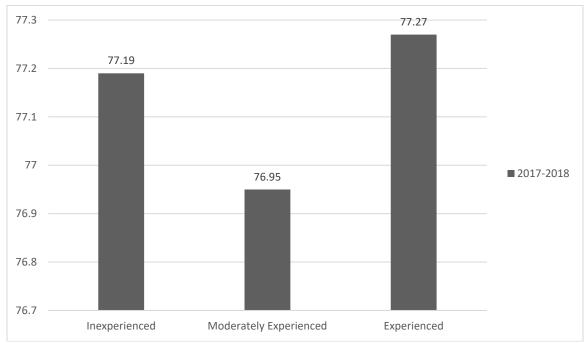


Figure 3.3. Percentages of Texas Grade 5 students who met the expected or accelerated growth standard on the STAAR Reading assessment by the average years of experience of the principal for the 2017-2018 school year.

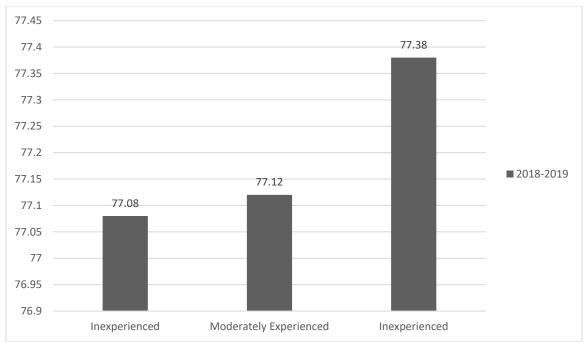


Figure 3.4. Percentages of Texas Grade 5 students who met the expected or accelerated growth standard on the STAAR Reading assessment by the average years of experience of the principal for the 2018-2019 school year.

CHAPTER IV

DIFFERENCES IN MATHEMATICS PROGRESS MEASURES FOR TEXAS GRADE

4 AND GRADE 5 STUDENTS AS A FUNCTION OF THE AVERAGE OF CAMPUS

PRINCIPALS' EXPERIENCE

This dissertation follows the style and format of Research in the Schools (RITS).

Abstract

Analyzed in this research study was the degree to which differences were present in the STAAR Mathematics progress levels of Grade 4 and Grade 5 elementary students in Texas as a function of the average numbers of years of the campus principal. Archival data from the Texas Education Agency for the 2017-2018 and 2018-2019 school years on the State of Texas Assessment of Academic Readiness were analyzed. Statistically significant differences were present between Inexperienced, Moderately Experienced, and Experienced principals on the expected or accelerated growth for Grade 4 and Grade 5 students who took the STAAR Mathematics assessment in the 2018-2019 school year, but were not present for the Grade 4 and Grade 5 STAAR Mathematics results in the 2017-2018 school year. The percentages of Grade 4 and Grade 5 students who met expected or accelerated growth on the STAAR Mathematics measure were lowest in schools with Inexperienced principals for both years. Implications for policy and practice, as well as recommendations for future research, are provided.

Keywords: Progress levels, Growth levels, Inexperienced, Moderately experienced, Experienced, Elementary schools, Texas, STAAR Mathematics assessment

DIFFERENCES IN MATHEMATICS PROGRESS MEASURES FOR TEXAS GRADE 4 AND GRADE 5 STUDENTS AS A FUNCTION OF THE AVERAGE OF CAMPUS PRINCIPALS' EXPERIENCE

Growing evidence exists that principals who are strong instructional leaders are more effective and more sought after than principals who serve as a manager or administrative leader (Miller, 2013). The effect that principals have on student achievement has been documented to vary from study to study and to be dependent on a variety of factors. One factor that has brought growing attention is the effect of the principal's longevity on student academic achievement (School Leaders Network, 2014). Furthermore, researchers (Ediger, 2008; Hollenbeck & Rieckhoff, 2014; Mackey, Pitcher & Decman, 2006) have analyzed the effect of principal tenure and experience on specific content areas such as English Language Arts and Mathematics. In a time of high principal and teacher turnover, it is important to understand the link that exists between leadership and achievement and how school districts can attract, develop and retain the most effective principals.

As part of a study of Georgia high school students' graduation test scores,
Siegrist, Weeks, Pate, and Monetti (2009) documented that the principal factors that most
influenced students' test scores were the percentage of students on free and reduced
priced lunch, the number of years of tenure at the current school, and principal efficacy
(Siegrist et al., 2009). Principals' tenure at their current school was less than four years.
This statistic is consistent with the findings of Burkhauser, Gates, Hamilton, and Ikemoto
(2012) who reported one in five principals in the United States leave their school after

one year. Siegrist et al. (2009) and Burkhauser et al. (2012) both reported that principal turnover negatively affects student achievement.

In a similar study, Babo and Postma (2017) documented that a statistically significant association was present between principal tenure at a campus and overall student performance in language arts and mathematics on the New Jersey state assessment. Though the relationship was small in nature, it is important when accounting for the other school and leadership variables that influence student achievement (Babo & Postma, 2017). Essentially, the researchers concluded that a principal's tenure at a campus has an influence on the overall students' achievement in reading and mathematics.

As previously mentioned, frequent principal turnover has been documented to have negative effects not only for students but also for teachers. Turnover can disrupt school reform efforts, diminish employee buyin, fracture relationshipsamong staff and leaders, and create goals and expectations that are unclear and unaligned (Beteille, Kalogrides, & Loeb, 2011). The disruption brought on by principal turnover is particularly evident in high poverty schools. These disruptive and negative effects were often mitigated when school districts brought in experience administrators.

Unfortunately, districts that continue to hire new, inexperience principals to fill vacancies at high poverty schools appear to experience more detrimental effects from leadership stability (Beteille et al., 2011).

The role of the principal has taken on many forms over the past few decades. With the adoption of the No Child Left Behind Act of 2001, new pressures were placed on school districts and, more specifically, school principals, to improve student

achievement. This shift from managerial leadership to instructional leadership evolved over the past few decades and gained traction in the 1990's to focus on supporting and developing teachers and improving low-performing schools (Catano & Stronge, 2006). Since that time, the Every Student Succeeds Act of 2015 included educational policy developments that further increased the scope of responsibilities for the principal including the adoption of high-stakes teacher evaluation systems and even more levels of external accountability (Liebowitz, & Porter, 2019).

Measuring a principal's influence on student learning has yielded a wide variety of correlational and causal relationships between leadership behaviors, experience, and school characteristics to student outcomes (Mora-Whitehurst, 2013; Ni, Sun, & Rorrer, 2015; School Leaders Network, 2014). Nevertheless, several researchers (e.g., Branch, Hanushek, & Rivkin, 2012; Miller, 2013) have documented that principals affect the student learning gains. One such study, the researchers Beteille, Kologrides, and Loeb (2012) documented student achievement increased when principal tenure increased. As a result, principal experience plays a role in improving student outcomes.

Some educators believe that to initiate effective school turnaround means to change the leadership of the school. In contrast, Hochbein and Cunningham (2013) demonstrated in their research that making a change in principal did not automatically result in improvements in performance. In fact, schools with one or more changes in principal were just as likely to see increases in student achievement as they were to experience declines (Hochbein & Cunningham, 2013). Thus, simply changing the school leader did not predispose a school for improved student performance. Recommendations included a broader emphasis in principal preparation programs for concentrations to

equip new and existing principals with better knowledge and skills necessary to meet and address the challenges of school improvement (Hochbein & Cunningham, 2013).

Schools with a high percentage of students from low socioeconomic status are associated with lower student achievement. Several researchers (Siegrist et al., 2009; Slovacek, Kunnan, & Kim, 2002) have supported that the higher percentage of free and reduced lunch students in a school was a statistically significant indicator of student achievement. These same schools, with high percentages of students from poverty, were more often led by principals with less experience and lower principal stability (Huff et al., 2011) than schools with lower percentages of students in poverty.

Under the Obama administration, persistently low-achieving schools were eligible to receive federal grants to support school improvement efforts. A requirement for the funds was radical change such as replacing principals and teachers (Beteille et al., 2011). These schools primarily had a high percentage of students in poverty. Many of these schools face high rates of principal turnover because of principals moving to more appealing schools (Loeb, Kalogrides, & Horng, 2010). Nevertheless, not all turnover is detrimental to the school. Principals' motivation to leave their current position is explained by a push-pull theory. Principals may be pulled into a new position either by promotion or transfer, or they may be pushed out of the position either by termination or political forces within the organization (Boyce & Bowers, 2016).

Schools with the highest concentration of students from poverty must have leaders who are experienced and know how to navigate the bureaucracy that is a reality in most school districts. Principals who are new to schools face a myriad of obstacles that may impede their ability to implement school improvement efforts (Burkhauser, et al.,

2012). Those principals that remain often do not stay at schools with high poverty percentages (School Leaders Network, 2014).

Principal turnover frequency was higher in urban schools than in suburban campuses (Partlow & Ridenour, 2008). This lower stability with principals may be a factor that influences school reform efforts. To improve the organizational stability of urban schools who educate a high percentage of students from poverty, school districts should create conditions to promote effective change and counter frequent principal turnover (Partlow & Ridenour, 2008).

Statement of the Problem

Principals are integral in setting the vision for the campus. A more difficult task for principals is the establishment of the instructional vision for subject-specific content such as mathematics (Katterfeld, 2014). This standpoint is not a critique of the mathematics content knowledge of the principal but rather the ability of the leader to set a vision of success within that content. Lochmiller and Acker-Hocevar (2016) focused on how secondary principals' knowledge, or lack thereof, of mathematics and science content influences their instructional leadership of these content areas. These school leaders emphasized more managerial tasks such as hiring teachers. Interestingly, leaders who had a strong mathematics background were hesitant to take over instructional duties, deferring to department leaders to assume the instructional role (Lochmiller & Acker-Hocevar, 2016). Despite their limited understanding of mathematics content, principals sought alternative ways to influence mathematics instruction such as hiring effective, certified teachers and secure professional development.

The question remains regarding who assumes the responsibility of student and teacher performance in a school. When it comes to accountability, most principals agree that, the principal should be held accountability for the outcomes and experiences that happen in his or her school (Harris Interactive, 2012). In contrast, principals in schools with more than two-thirds of students from poverty or where less students are performing on grade level are less likely to agree with this statement (Harris Interactive, 2012). This perception may be due to the perceptions of those principals in low SES schools that they have less control about decisions of hiring or removing teachers than their peers from higher SES schools.

Purpose of the Study

The purpose of this study was to examine the degree to which the average campus principals' years of experience was related to student progress in mathematics.

Additionally, the extent to which the average of principals' years of tenure in the district influenced student achievement in mathematics was investigated. Through analyzing a statewide data set, the extent to which trends were present for student progress on the STAAR Mathematics assessment and the length of service of the principal was determined.

Significance of the Study

Rapid turnover of principals, especially those principals in low-performing schools, is becoming an increasing concern to school district leaders (Burkhauser et al., 2012). According to the report from the RAND Corporation, when a first-year principal leaves a school after only one year, the school does not do well the subsequent year (Burkhauser et al., 2012). The empirical link between effective principals and improved

student achievement has shown small or little effects (Manna, 2015). Nevertheless, when factors such as principal experience, tenure, economic status of students, and others combine, it becomes a critical mass that can substantially affect the student outcomes at a campus. In this research investigation, the degree to which principal experience and principal tenure affects progress in mathematics will be addressed. Finally, the results and findings may have practical implications for school district leaders and policymakers in their processes for recruiting, developing, and retaining the most highly effective principals.

Research Questions

The following research questions were addressed in this study: (a) What is the difference in the percentage of students who achieved Expected or Accelerated growth in STAAR Mathematics for Grade 4 students as a function of the campus principals' average years of experience? and (b) What is the difference in the percentage of students who achieved Expected or Accelerated growth in STAAR Mathematics for Grade 5 students as a function of the campus principals' average years of experience?; (c) What trend, if any, is present in the percentage of Expected or Accelerated growth in STAAR Mathematics for Grade 4 students as a function of campus principals' average years of experience?; and (d) What trend, if any, is present in the percentage of Expected or Accelerated growth in STAAR Mathematics for Grade 5 students as a function of campus principals' average years of experience These questions were analyzed for the 2017-2018 and 2018-2019 school years.

Method

Research Design

A non-experimental causal-comparative research design was present herein (Creswell, 2014; Johnson & Christensen, 2020). The independent variable was not able to be manipulated, because a statewide archival dataset was utilized to examine the progress of Texas elementary students in mathematics related to principal tenure and experience. As such, both student academic outcomes and the principal years of tenure and experience had already occurred. Additionally, neither the independent variable nor the dependent variable were manipulated (Johnson & Christenson, 2020). The independent variables that were examined in this investigation were the years of experience as a principal and the years of tenure at the campus. The dependent variables that were analyzed were the progress of elementary students in mathematics.

Participants and Instrumentation

The unit of analysis for this study was data obtained from elementary public schools in Texas. Participants in this study were principals of traditional elementary public schools during the 2016-2017 and the 2017-2018 school years. The data were downloaded from the 2016-2017 and the 2017-2018 Texas Academic Performance Report. For the purposes of this study, principals of schools with Kindergarten through Grade 5 were labeled as elementary school principals.

Data were obtained from the Texas Academic Performance Report database, and then imported into the Statistical Package for Social Sciences (SPSS) software program.

After the Texas Academic Performance Report data files were converted into a SPSS data file, labels were given to relevant variables used in this investigation. Because data

were obtained from the website of the Texas Education Agency, minimal errors in the data were assumed to be present.

Results

To determine whether statistically significant differences were present for Grade 4 students who scored at expected or accelerated growth on the STAAR Mathematics assessment by principal years of experience, Analysis of Variance (ANOVA) procedures were calculated for each school year. Prior to these calculations, its underlying assumptions were checked. Although not all assumptions were met, Field (2009) contends that the parametric ANOVA procedure is sufficiently robust that these violations can be withstood. Accordingly, the use of parametric ANOVA procedures was justified to address both research questions.

Grade 4 Mathematics Results

With respect to the 2017-2018 school year, the result approached but did not reach the conventional level of statistical significance, F(2, 2641) = 2.36, p = .095, in the percentage of Grade 4 students who demonstrated expected or accelerated growth on the STAAR Mathematics assessment by principal experience. Sheffe' post hoc procedures revealed that comparisons between all three principal experience groups were not statistically significantly different. Similar percentages of Grade 4 students met the expected or accelerated growth, regardless of principal experience. Revealed in Table 4.1 are the descriptive statistics for this analysis.

Insert Table 4.1 about here

Differences were present regarding the percentage of students who met the expected or accelerated growth between the Inexperienced and the Moderately Experienced and Experienced principal experience groups. In regard to the Grade 4 STAAR Mathematics growth scores, the highest growth scores were in schools with Moderately Experienced principals. Depicted in Figure 4.1 are the percentages of Grade 4 students who met the expected or accelerated growth on the STAAR Mathematics test by principal years of experience during the 2017-2018 school year.

Insert Figure 4.1 about here

Concerning the 2018-2019 school year, the ANOVA yielded a statistically significant difference, F(2, 2822) = 4.85, p = .008, partial $\eta^2 = .003$, a below small effect size (Cohen, 1988). Next, Scheffe post hocs were calculated to determine which pairwise combinations of principal experience differed from each other. Differences were present in the percentage of Grade 4 students who met the expected or accelerated STAAR growth measure in mathematics between each pair of principal years of experience groups, with the exception of the Moderately Experienced and Experienced principals. Higher percentages of Grade 4 students enrolled in schools with Moderately Experienced principals demonstrated expected or accelerated growth on the STAAR Mathematics assessment than Grade 4 students enrolled in schools with Inexperienced or Experienced principals. Table 4.2 contains the descriptive statistics for this analysis.

Insert Table 4.2 about here

The percentages of students who met the expected or accelerated growth status in Grade 4 mathematics during the 2018-2019 school year was lowest at schools led by Inexperienced principals, followed by Experienced principals. The highest percentages of Grade 4 students who met the expected or accelerated growth status were at schools led by Moderately Experienced principals. A difference of more than 2.5% was present for students who met the expected or accelerated growth on the STAAR Grade 4 Mathematics assessment between Inexperienced principals and Moderately Experienced principals. Portrayed in Figure 4.2 are the percentages of Grade 4 students who met the expected or accelerated growth on the STAAR Mathematics test by principal years of experience for the 2018-2019 school year.

Insert Figure 4.2 about here

Grade 5 Mathematics Results

Regarding the 2017-2018 school year, a statistically significant difference was not revealed, F(2, 2752) = 1.62, p = .20. Concerning the percentage of students who met the expected or accelerated growth levels on the Grade 5 STAAR Mathematics scores, similar percentages met the standard in all three principal experience groups. Inexperienced principals and Moderately Experienced principals had nearly identical results whereas the Inexperienced principal group was nearly 1% percentage point lower than the Experienced principals group. Presented in Table 4.3 are the descriptive statistics for this analysis.

Insert Table 4.3 about here

With respect to the students who met the expected or accelerated growth status in Grade 5 math during the 2017-2018 school year, students in schools with Inexperienced principals scored the lowest, followed by students in schools with Moderately Experienced principals, and then by students in schools with Experienced principals.

These differences, however, were not statistically significant. Illustrated in Figure 4.3 are the percentages of Grade 5 students who met the expected or accelerated growth on the STAAR Mathematics test by principal years of experience for the 2017-2018 school year.

Insert Figure 4.3 about here

With respect to the 2018-2019 school year, the ANOVA yielded a statistically significant difference, F(2, 2785) = 2.93, p = .054, partial $\eta^2 = .002$, a below small effect size. Similar percentages of Grade 5 students met the expected or accelerated STAAR growth measure in mathematics in the Moderately Experienced and Experienced groups. A difference of almost 1.5% percentage points was revealed between the lower scoring Inexperienced principal group and the other two principal groups. Depicted in Table 4.4 are the results of the percentages of Grade 5 elementary students who met the expected or accelerated growth measure on the STAAR Mathematics assessment by principal years of experience.

Insert Table 4.4 about here

Concerning the 2018-2019 school year, students in schools with Moderately Experienced and Experienced principals scored nearly identical in the STAAR Mathematics growth measure. The Inexperienced principal group had the lowest percentages of Grade 5 students who met the expected or accelerated growth standard. Depicted in Figure 4.4 are the percentages of Grade 5 students who met the expected or accelerated growth on the STAAR Mathematics test by principal years of experience.

Insert Figure 4.4 about here

Discussion

Analyzed in this investigation was the extent to which differences were present in the percentage of Grade 4 and Grade 5 students who met the expected or accelerated growth on the STAAR Mathematics assessment by principal experience. Two years of Texas statewide accountability results were examined for principals in three categories: Inexperienced, Moderately Experienced, and Experienced. Statistically significant results were present for Grade 4 and Grade 5 students during the 2018-2019 school year but were not present for Grade 4 and Grade 5 students during the 2017-2018 school year. Effect sizes for these differences were below small.

In each of the two years analyzed, students in schools with Inexperienced principals had the lowest percentages of students who met the expected or accelerated growth on the STAAR Mathematics assessment than students in schools led by Moderately Experienced or Experienced principals. Grade 4 students in both school years in schools led by Moderately Experienced principals showed more growth than students in school with Experienced principals.

Connections with Existing Literature

Clearly revealed in this multiyear, statewide analysis are the effects of principal experience on student progress in mathematics. Students in schools led by Inexperienced principals were less likely to achieve the expected or accelerated growth measures on the Grade 4 STAAR Mathematics assessment. In addition, Grade 4 students in schools with Moderately Experienced principals had a slightly higher growth rate than those schools with Experienced principals. Nationally (e.g., Branch et al., 2012; Branch et al., 2013; Cummins, 2015) students in schools led by more experienced principals consistently

achieve at higher rates than in schools with less experienced principals, congruent with the findings of this study.

Researchers (Burkhauser et al., 2012; Hollenbeck & Rieckhoff, 2014; School Leaders Network, 2014) have examined the link between principal experience and student academic achievement. Although some researchers have documented links between school leaders' experience and student outcomes to be indirect in nature, other researchers have established negative effects on principal turnover on student achievement (Babo & Postma, 2017; Beteille et al., 2011; Branch et al., 2013).

Furthermore, schools with a higher percentage of students from low socioeconomic status are associated with lower student achievement (Burkhauser et al., 2012; Huff et al., 2011). Students from poverty need experienced principals with a strong track record for implementing and sustaining school improvement initiatives (Partlow & Ridenour, 2008; School Leaders Network, 2014).

Furthermore, the link between mathematics content knowledge does not influence their instructional leadership in this area, focusing instead on hiring effective teachers and securing professional development (Lochmiller & Acker-Hocevar, 2016). It takes time for a principal to establish an instructional vision for a campus, especially for subject-specific content areas such as mathematics (Katterfeld, 2014). Additionally, it is the principal who assumes responsibility for student achievement in a school and faces greater sanctions if improvements are not made (Harris Interactive, 2012). As stated in this study, students in schools with Inexperienced Principals were less likely to make progress in mathematics.

Implications for Policy and Practice

Based on the analysis of two years of Texas statewide data, several implications for policy and for practice can be recommended. With respect to policy implications, the passage of House Bill 3 (Texas Education Agency, 2019b) in 2019, funds must be used to support implementing early literacy and mathematics proficiency plans that lead to improved third grade proficiency on the STAAR assessment. Continuing this funding will allow researchers to conduct future studies and to determine the success rate of the program. Grants are also available for schools to establish math innovation zones using a blended learning model. Based on the Texas Academic Performance Report from the 2018-2019 school year, less than half of all Grade 3 students scored on grade level on the STAAR Mathematics assessment while 65% of Grade 4 students met or exceeded the growth needed for that school year. Continuing to educate and train campus leaders and provide funds for innovative programs in mathematics will ensure that principals are prepared and supported with improving mathematics instruction.

With respect to practice implications, school districts should provide opportunities and funding that will support principals and teachers with best practices and strategies for effective mathematics instruction. Principals should be given the ability to hire teachers with mathematics backgrounds and provide supplemental, trained support staff dedicated to improving mathematics skills. Additionally, districts should be cautious when selecting mathematics textbooks and resources that will address the Texas standards. District leaders and principals must review, select and adopt aligned, rigorous materials.

An additional practice that educational leaders can implement is to provide ongoing support and instructional development to new and inexperienced principals to

improve their abilities to set an instructional vision for the campus and to hire teachers who will buy into this vision. Inexperienced principals require mentoring and coaching from effective, experienced school and district leaders. Providing individualized, targeted professional learning and setting up cohort experiences that will build the leadership toolkits for new principals will reduce turnover and improve student outcomes and school climate.

Recommendations for Future Research

Given the results of this empirical multiyear investigation, several suggestions can be made for future research. First, studies were conducted on data on only Grade 4 and Grade 5 students in Texas. The degree to which findings obtained herein would be generalizable to students in other grade levels is not known. Researchers should analyze the progress in mathematics of students based on principal experience in other grade levels to determine if similar results are present. Second, because only mathematics progress was addressed in this article, researchers should examine the degree to which principal experience is related to other subjects such as reading, science, and social studies. Next, researchers should ascertain the extent to which results from this Texas statewide analysis would be generalizable to schools in other states. The extent to which the results of this investigation can be generalized to other states is unknown. Finally, researchers are encouraged to conduct longitudinal studies in which they follow principals who have demonstrated sustained student growth in reading. The results would allow researchers to analyze the conditions and resources necessary to improve literacy outcomes for students.

Conclusion

The purpose of this multiyear analysis was to examine the extent to which Grade 4 and Grade 5 progress in mathematics was related to principal experience (i.e., Experienced, Moderately Experienced, Inexperienced). Specifically examined in this article were the percentages of students in Texas elementary schools who met the expected or accelerated growth measures on the STAAR Mathematics assessment based on the principals' years of experience. Statistically significant results were present for Grade 4 and Grade 5 students in mathematics during the 2018-2019 school year but were not significantly significant during the 2017-2018 school year. Additionally, considering the results of the third study, the consequences of being in schools with Inexperienced principals are more apparent with respect to the mathematics progress of elementary students. Particularly concerning were the differences between student progress in schools with Inexperienced and Experienced principals. Principal experience was clearly established as an influence on student achievement and progress in mathematics.

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Table 4.1

Descriptive Statistics for the STAAR Grade 4 Students at Expected or Accelerated

Mathematics Progress by the Principal's Years of Experience for the 2017-2018 School

Year

Principal Experience Groups	n of schools	М%	SD%
Inexperienced	1,222	59.47	13.02
Moderately Experienced	888	60.67	12.99
Experienced	534	60.36	13.56

Table 4.2

Descriptive Statistics for the STAAR Grade 4 Students at Expected or Accelerated

Mathematics Progress by the Principal's Years of Experience for the 2018-2019 School

Year

Principal Experience Groups	n of schools	М%	SD%
Inexperienced	1,324	55.14	20.23
Moderately Experienced	942	57.63	17.98
Experienced	559	56.77	18.50

Table 4.3

Descriptive Statistics for the STAAR Grade 5 Students at Expected or Accelerated

Mathematics Progress by the Principal's Years of Experience for the 2017-2018 School

Year

Principal Experience Groups	n of schools	М%	SD%
Inexperienced	1,283	77.80	11.18
Moderately Experienced	914	77.89	10.80
Experienced	558	78.77	11.02

Table 4.4

Descriptive Statistics for the STAAR Grade 5 Students at Expected or Accelerated

Mathematics Progress by the Principal's Years of Experience for the 2018-2019 School

Year

Principal Experience Groups	n of schools	M%	SD%
Inexperienced	1,301	75.57	17.01
Moderately Experienced	931	77.04	14.52
Experienced	556	77.03	15.34

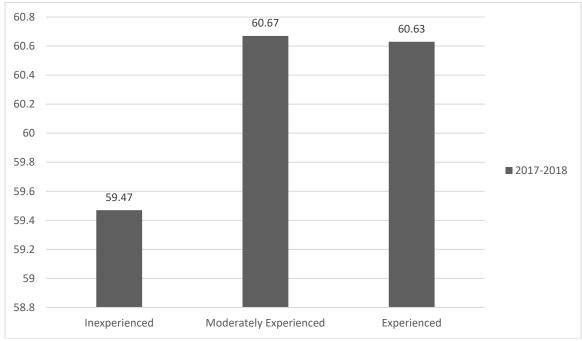


Figure 4.1. Percentages of Texas Grade 4 students who met the expected or accelerated growth on the STAAR Mathematics assessment by principal average years of experience for the 2017-2018 school year.

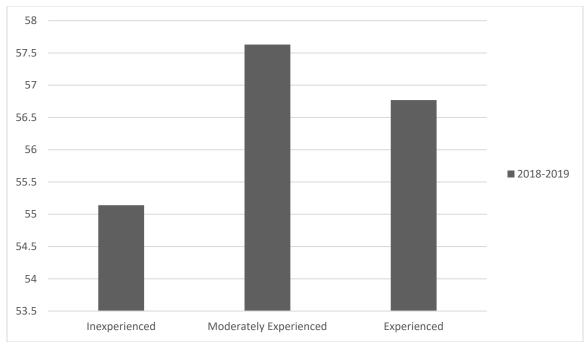


Figure 4.2. Percentages of Texas Grade 4 students who met the expected or accelerated growth on the STAAR Mathematics assessment by principal average years of experience for the 2018-2019 school year.

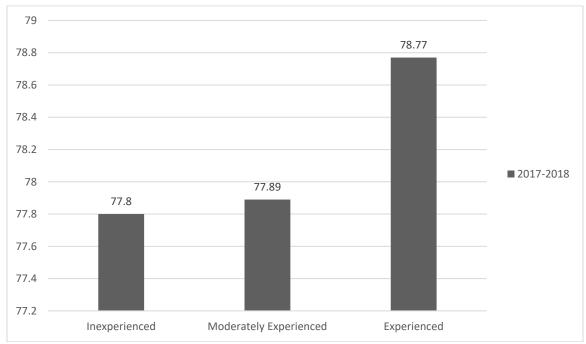


Figure 4.3. Percentages of Texas Grade 5 students who met the expected or accelerated growth on the STAAR Mathematics assessment by principal average years of experience 1 for the 2017-2018 school year.

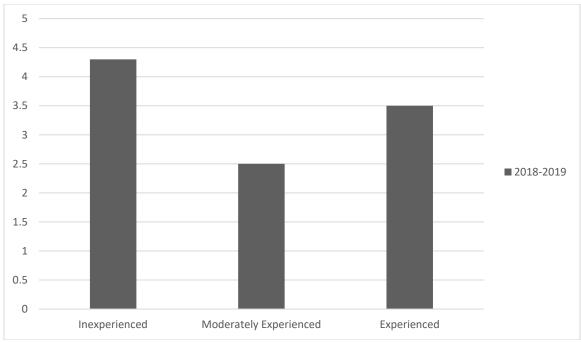


Figure 4.4. Percentages of Texas Grade 5 students who met the expected or accelerated growth on the STAAR Mathematics assessment by principal average years of experience for the 2018-2019 school year.

CHAPTER V

DISCUSSION

The purpose of this journal-ready dissertation was to determine the degree to which differences were present in school accountability ratings and progress measures by principal experiences. In the first study, the degree to which differences were present in accountability rating as a function of the average campus principals' years of experience with the district was examined. The extent to which differences were present in STAAR Reading progress levels as a function of the average campus principals' years of experience with the district was analyzed in the second study. Finally, in the third study, the extent to which differences existed in STAAR Mathematics progress levels as a function of the average campus principals' years of experience with the district was addressed. In each of these studies, data from a Texas statewide dataset were analyzed. An analysis of academic performance for the 2017-2018 and 2018-2019 school years was conducted to determine the degree to which trends were present.

In this chapter, the results of the three articles in this journal-ready dissertation will be summarized and discussed. Additionally, implications of these findings for policy and practice are discussed, followed by recommendations for future research.

Discussion of Elementary School Accountability Ratings based on Principal Experience

Two years of Texas statewide data on school accountability status were examined for Inexperienced, Moderately Experienced, and Experienced principal groups.

Statistically significant results were present in both school years. In each of the two years of school data that were analyzed, elementary schools led by Inexperienced principals

had statistically significantly lower accountability ratings than schools led by Moderately Experienced or Experienced principals. Inexperienced principals were more than twice as likely to lead Improvement Required schools than were Experienced principals.

Moderately Experienced principals were more than one percentage point less likely than Inexperienced principals to lead schools that were labeled Improvement Required. Table 5.1 contains the descriptive statistics for this analysis.

Table 5.1

Frequencies and Percentages for the Elementary Campus Accountability Status by the Principals' Years of Experience for the 2017-2018 School Year

	Inexperienced Moderately Experienced			•	Experienced		
Campus Accountability Status	n of schools	%	n of schools	%	n of schools	%	
Met Standard Improvement Required	1,268 36	97.24 2.76	914 16	98.28 1.72	559 7	98.76 1.24	

A higher percentage of D rated schools were led by Inexperienced Principals, 8%, than by Experienced Principals, 5%. Of the A rated schools, a higher percentage of them were led by Experienced Principals, nearly 30%, than by Moderately Experienced Principals, nearly 24%. The lowest percentage of A rated schools were led by Inexperienced Principals, 21%. Delineated in Table 5.2 are the descriptive statistics for these analyses.

Table 5.2

Frequencies and Percentages for the Elementary Campus Accountability Status by the Principals' Years of Experience for the 2017-2018 School Year

	A	В		С		D		
Principal Experience Groups	n of schools	%	n of schools	%	n of schools	%	n of schools	%
Inexperienced	273	21.6	489	38.7	401	31.7	101	8.0
Moderately Experienced	219	23.7	367	39.6	273	29.5	67	7.2
Experienced	165	29.9	223	40.4	136	24.6	28	5.1

In each of the two years of Texas statewide data that were analyzed, higher percentages of Inexperienced principals were leaders of schools that were rated as Improvement Required or a D than Experienced or Moderately Experienced principals. In the State of Texas in the 2017-2018 school year, 36 Inexperienced principals led schools in the Improvement Required category in contrast to only 7 schools in this category being led by Experienced principals. Similarly, in the 2018-2019 school year, 101 D rated schools were led by Inexperienced principals in contrast to only 28 schools in this category being led by Experienced principals. Experienced principals were 10 percentage points more likely to lead schools rated as A or B than Inexperienced principals. The gap between Moderately Experienced principals and Inexperienced principals was twice as big as the gap between Moderately Experienced and Experienced principals. Portrayed in Figure 2.1 are the results of elementary schools that Met Standard by principal years of experience for the 2017-2018 school year.

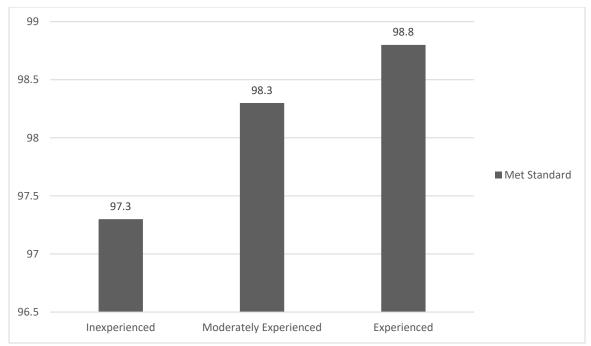


Figure 5.1. Texas elementary schools that Met Standard by the average years of experience of the principal for the 2017-2018 school year.

In each of the two years, the total number of Experienced principals was more than twice the total number of Inexperienced principals. Experienced principals were more likely to lead higher-rated schools, followed by Moderately Experienced, and then by Inexperienced principals. Depicted in Figure 2.2 are the results of the elementary schools who were rated a D for the 2018-2019 school year by average years of principal experience.

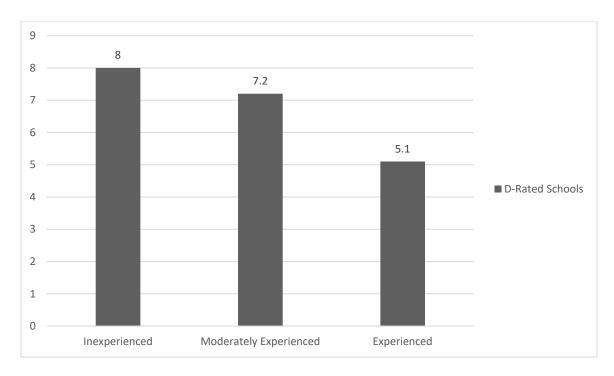


Figure 5.2. Texas elementary schools rated a D by the average years of experience of the principal for the 2018-2019 school year.

Discussion of Results of the Percentage of Students who Met the Expected or Accelerated Growth on STAAR Reading based on Principal Experience

Two years of Texas statewide accountability results were examined for principals in three categories: Inexperienced, Moderately Experienced, and Experienced.

Concerning both school years, the percentages of Grade 4 students who met the Expected or Accelerated Growth levels on the STAAR Reading test were statistically significantly related to the average years of experience of the principal but not to the Grade 5 STAAR Reading results. Effect sizes for these differences were below small.

In each of the two years of school data that were analyzed, fewer Grade 4 students met the Expected or Accelerated Growth on the STAAR Reading assessment at schools led by Inexperienced principals than students at schools led by Moderately Experienced or Experienced principals. Conversely, lower percentages of Grade 5 students met the

expected or accelerated growth in schools led by Moderately Experienced principals than students in schools with Inexperienced or Experienced principals.

For the 2017-2018 school year, Grade 4 students in schools with Experienced principals were nearly 2 percentage points more likely to make expected or accelerated growth than were Grade 4 students at schools led by Inexperienced principals. The difference between Inexperienced and Moderately Experienced principals was 1.5 percentage points for students who were at the expected or accelerated growth for the STAAR Reading assessment. The percentages of students who met the expected or accelerated growth status in Grade 4 reading during the 2017-2018 school year were highest at schools led by Experienced principals, followed by schools led by Moderately Experienced principals. The lowest percentages of Grade 4 students who met the expected or accelerated growth status were at schools led by Inexperienced principals. The difference was over 2% for students who met the expected or accelerated growth on the Grade 4 STAAR Reading measure between Experienced principals and Inexperienced principals.

Concerning the 2018-2019 school year, higher percentages of Grade 4 students enrolled in schools with Experienced principals demonstrated expected or accelerated growth on the STAAR Reading assessment than Grade 4 students enrolled in schools with Inexperienced or Moderately Experienced principals. The percentage of students who met the expected or accelerated growth status in Grade 4 reading was highest at schools led by Experienced principals, followed by schools led by Moderately Experienced principals. The lowest percentages of Grade 4 students who met the expected or accelerated growth status were at schools led by Inexperienced principals. A

difference of nearly 2% was present for students who met the expected or accelerated growth on the Grade 4 STAAR Reading measure between Experienced principals and Inexperienced principals. Illustrated in Figure 5.3 are the percentages of Grade 4 students who met the expected or accelerated growth on the STAAR Reading test by principal years of experience for both school years.

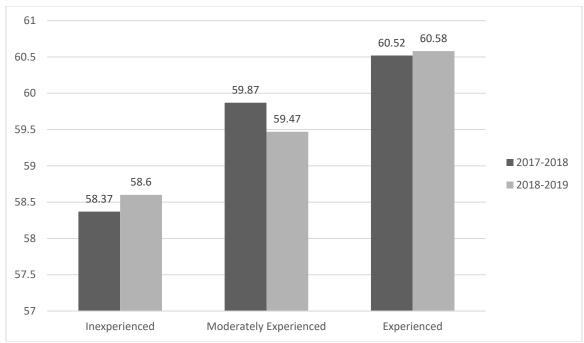


Figure 5.3. Percentages of Texas Grade 4 students who met the expected or accelerated growth standard on the STAAR Reading assessment by the average years of experience of the principal for the 2017-2018 and 2018-2019 school years.

With respect to the students who met the expected or accelerated growth status in Grade 5 reading during the 2017-2018 school year, similar percentages of Grade 5 students met the expected or accelerated growth on the STAAR Reading test, regardless of their principal experience. Students in schools with Moderately Experienced principals had the poorest performance, followed by students in schools with Inexperienced principals, and then by students in schools with Experienced principals. These differences, however, were not statistically significant.

For the 2018-2019 school year, similar percentages of Grade 5 students met the expected or accelerated STAAR Reading growth measure regardless of their principal experience. Differences were consistent regarding gaps between each of the three principal experience categories. Concerning the Grade 5 STAAR Reading Reporting progress scores, students who met the expected or accelerated growth were nearly the same. Depicted in Figure 5.4 are the results of the percentages of Grade 5 elementary students who met the expected or accelerated growth measure on the STAAR Reading assessment by principal years of experience for the 2017-2018 and the 2018-2019 school years.

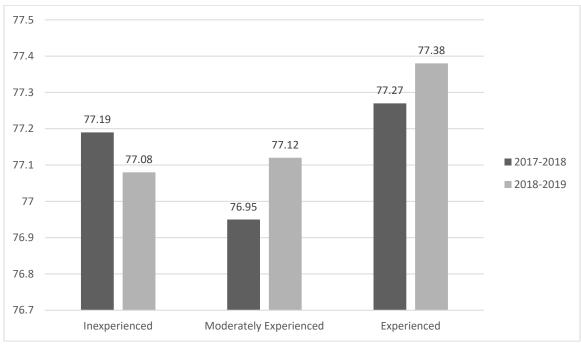


Figure 5.4 Percentages of Texas Grade 5 students who met the expected or accelerated growth standard on the STAAR Reading assessment by the average years of experience of the principal for the 2017-2018 and 2018-2019 school years.

Discussion of Results of the Percentage of Students who Met the Expected or Accelerated Growth on STAAR Mathematics based on Principal Experience

Two years of Texas statewide accountability results were examined for principals in three categories: Inexperienced, Moderately Experienced, and Experienced.

Statistically significant results were present for Grade 4 and Grade 5 students who met the Expected or Accelerated growth measure on the STAAR Mathematics assessment during the 2018-2019 school year but were not present for Grade 4 and Grade 5 students during the 2017-2018 school year. Effect sizes for these differences were below small.

In each of the two years of school data that were analyzed, schools with Inexperienced principals had the lowest percentages of students who met the expected or accelerated growth on the STAAR Mathematics assessment than students in schools led by Moderately Experienced or Experienced principals. Grade 4 students in both school years in schools led by Moderately Experienced principals showed more growth than students in school with Experienced principals.

Concerning the 2017-2018 school year, similar percentages of Grade 4 students met the expected or accelerated growth, regardless of principal experience. Differences were present regarding the percentage of students who met the expected or accelerated growth between the Inexperienced and the Moderately Experienced and Experienced principal experience groups. In regard to the Grade 4 STAAR Mathematics growth scores, the highest growth scores were in schools with Moderately Experienced principals.

With the respect to the 2018-2019 school year, differences were present in the percentage of Grade 4 students who met the expected or accelerated STAAR growth

measure in mathematics between each pair of principal years of experience groups, with the exception of the Moderately Experienced and Experienced principals. Higher percentages of Grade 4 students enrolled in schools with Moderately Experienced principals demonstrated expected or accelerated growth on the STAAR Mathematics assessment than Grade 4 students enrolled in schools with Inexperienced or Experienced principals. The percentages of students who met the expected or accelerated growth status in Grade 4 mathematics during the 2018-2019 school year was lowest at schools led by Inexperienced principals, followed by Experienced principals. The highest percentages of Grade 4 students who met the expected or accelerated growth status were at schools led by Moderately Experienced principals. A difference of more than 2.5% was present for students who met the expected or accelerated growth on the STAAR Grade 4 Mathematics assessment between Inexperienced principals and Moderately Experienced principals. Depicted in Figure 5.5 are the percentages of Grade 4 students who met the expected or accelerated growth on the STAAR Mathematics test by principal years of experience during the 2017-2018 and 2018-2019 school years.

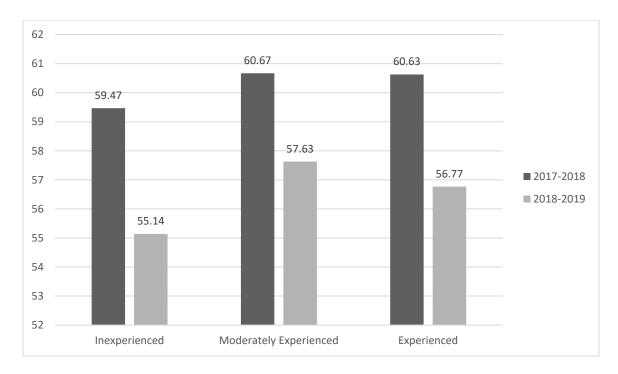


Figure 5.5. Percentages of Texas Grade 4 students who met the expected or accelerated growth standard on the STAAR Mathematics assessment by the average years of experience of the principal for the 2017-2018 and 2018-2019 school years.

Concerning the percentage of students in 2017-2018 who met the expected or accelerated growth levels on the Grade 5 STAAR Mathematics scores, similar percentages met the standard in all three principal experience groups. Inexperienced principals and Moderately Experienced principals had nearly identical results whereas the Inexperienced principal group was nearly one percentage point lower than the Experienced principals group. The Inexperienced principal group scored the lowest, followed very closely by the Moderately Experienced group.

With respect to the 2018-2019 school year, similar percentages of Grade 5 students met the expected or accelerated STAAR growth measure in mathematics in the Moderately Experienced and Experienced groups. A difference of almost 1.5% percentage points was revealed between the lower scoring Inexperienced principal group and the other two principal groups. Students in schools with Moderately Experienced

and Experienced principals scored nearly identical in the STAAR Mathematics growth measure. The Inexperienced principal group had the lowest percentages of Grade 5 students who met the expected or accelerated growth standard. Depicted in Figure 5.6 are the percentages of Grade 5 students who met the expected or accelerated growth on the STAAR Mathematics test by principal years of experience.

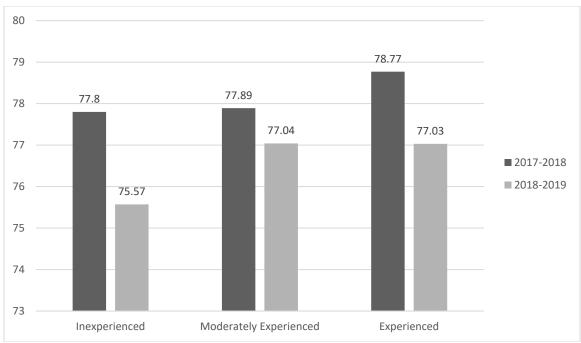


Figure 5.6. Percentages of Texas Grade 5 students who met the expected or accelerated growth standard on the STAAR Mathematics assessment by the average years of experience of the principal for the 2017-2018 and 2018-2019 school years.

Connections with Existing Literature

The findings in all three studies were congruent with previous research in this journal-ready study. As presented in the first investigation, schools led by Inexperienced principals had statistically significantly lower school accountability ratings than schools led by Moderately Experienced and Experienced principals. These results are consistent with the findings of other researchers (e.g., Babo & Postma, 2017; Beteille et al., 2012; Branch, et al., 2013; Huff et al., 2011) who documented the eifferences between principal

experience and the academic achievement of students in that school. As supported in the first article, schools with higher rates of principal turnover underperformed those with more stable leadership (School Leaders Network, 2012; Tekleselassie & Villarreal, 2011).

As revealed in the second investigation, students in schools led by principals with more years of experience achieved at higher rates than schools with less experienced principals (e.g., Branch et al., 2012; Branch et al., 2013; Cummins, 2015). As documented herein, Grade 4 students in schools led by Inexperienced principals were less likely to achieve the expected or accelerated growth measures in reading for the 2017-2018 and the 2018-2019 school years. Increased demands on the principal to turnaround schools and improve outcomes in literacy have led to mixed results (Fletcher et al., 2011; Hollenbeck & Rieckhoff, 2014; Mora-Whitehurts, 2013), which have resulted in higher principal turnover. This turnover is clearly negatively impacting reading achievement and progress in many grade levels.

The findings discussed in the third study were reflective of only a few statistically significant results for Grade 4 students on the Texas state-mandated mathematics assessment based on principal experience. Clearly revealed was that Grade 4 students in schools led by Inexperienced principals were less likely to achieve the expected or accelerated growth measures on the mathematics assessment. The link between mathematics content knowledge does not influence the principal's leadership in this area (Katterfield, 2014). Nevertheless, with greater pressures and responsibilities for improving student achievement being placed on the principal, turnover has produced negative effects (Babo & Postma, 2017; Beteille et al., 2011; Branch et al., 2013).

Implications for Policy and for Practice

Based on the analysis of two years of Texas statewide data, several implications for policy and for practice can be recommended. With respect to policy implications, during the fall of 2013, the State of Texas published a document outlining principal standards. From this, a new evaluation tool for principals, the Texas Principal Evaluation and Support System was established which focused on a system of continuous professional growth (www.tpess.org, 2020). Although this evaluation system is designed to allow principals opportunities to reflect on their practice and implement best practices, it has been implemented sporadically and is highly subjective, relying heavily on the experience and time given by the principal supervisor. Few to no requirements have been present from the Texas Education Agency or the state legislature in regard to principal support and mentorship programs. With the upcoming legislative session, funding for quality, effective principal support programs should be allocated.

Another policy implication is with the passage of House Bill 3 in the Texas Legislative Session of 2019, in which all Kindergarten through Grade 3 teachers and principals are required to attend a literacy achievement academy, also known as Reading Academies, by 2023. These professional development cohort sessions are focused on the science on teaching reading to improve reading outcomes for all Texas learners. Based on the Texas Academic Performance Report from 2019, less than half of all Grade 3 students were reading on grade level whereas 61% of Grade 4 students met or exceeded the growth needed for that school year. Continuing to educate and train campus leaders, just like through the reading academies, will ensure that instructionally-focused principals are present on every campus that can support teachers in the area of literacy.

Another policy implication that is tied to the passage of House Bill 3 (Texas Education Agency, 2019b) in 2019, states that funds must be used to support implementing early literacy and mathematics proficiency plans that lead to improved third grade proficiency on the STAAR assessment. Continuing this funding will allow researchers to conduct future studies and to determine the success rate of the program. Grants are also available for schools to establish math innovation zones using a blended learning model. Based on the Texas Academic Performance Report from the 2018-2019 school year, less than half of all Grade 3 students scored on grade level on the STAAR Mathematics assessment while 65% of Grade 4 students met or exceeded the growth needed for that school year. Continuing to educate and train campus leaders and provide funds for innovative programs in mathematics will ensure that principals are prepared and supported with improving mathematics instruction.

Regarding implications for practice, school districts should evaluate their own principal turnover rates, especially in schools with higher percentages of students of poverty. Empowering superintendents and principal supervisors with training in coaching and development and providing actionable feedback is necessary to ensure principal turnover rates, especially in urban schools, do not increase in future school years. Furthermore, school district leaders should assign experienced mentors to every first year principal and provide release time and stipends to encourage greater collaboration and commitment.

Another practice that school districts should implement is to provide resources and staff to support principals and teachers with best practices and strategies for literacy instruction. Principals have many competing initiatives and challenges to address every

day. Providing guidance and trained staff to help initiate and sustain school improvement efforts in reading is necessary to achieve real gains for students.

Another strategy educational leaders can implement is to provide ongoing support and development to new principals to maintain and foster sustained commitment to their schools and the role. School district leaders should not only focus on creating and developing a strong principal pipeline of talented, trained school leaders, but also on providing continued support in leadership development and practices for improving literacy and mathematics instruction. District leaders should engage principals in networks of their peers where they can learn from each other and provide one-to-one coaching support, when needed. Principals should be given the ability to hire teachers with literacy and mathematics backgrounds and provide supplemental, trained support staff dedicated to improving these content skills. Additionally, districts should be cautious when selecting literacy and mathematics textbooks and resources that will address the Texas standards. District leaders and principals must review, select and adopt aligned, rigorous materials.

Recommendations for Future Research

Given the results of the three articles in this journal-ready dissertation, several suggestions can be made for future research. Based on the results of this empirical multiyear investigation, several recommendations for future research can be made. First, these studies were conducted using data from only elementary schools. The degree to which findings obtained herein would be generalizable to secondary schools is not known. Accordingly, researchers are encouraged to examine the accountability status

and progress in reading and mathematics based on average principals' years of experience at middle schools and at high schools.

Second, because accountability status at the elementary level is based on only STAAR performance, researchers should examine the degree to which principals' years of experience is related to other accountability measures at the secondary level such as College, Career, and Military Readiness and graduation rates. Third, researchers should ascertain the extent to which results from this Texas statewide analysis would be generalizable to principal turnover and accountability status in other states. The extent to which the results of this investigation can be generalized to other states is unknown. Additionally, researchers are encouraged to conduct longitudinal studies in which they follow effective principals of urban campuses who remain at their campuses for longer than five years. The results would allow researchers to analyze the conditions and resources necessary and the leadership qualities that affect principal decisions to remain.

Also, researchers are encouraged to conduct longitudinal studies in which they follow principals who have demonstrated sustained student growth in reading and mathematics achievement. The results would allow researchers to analyze the conditions and resources necessary to improve literacy and mathematics outcomes for students.

Finally, because only reading and mathematics academic achievement as determined by the STAAR assessment was analyzed in this study, researchers are encouraged to conduct future studies to determine if similar trends are present in other subjects such as science or history.

Conclusion

The purpose of this journal-ready dissertation was to determine the degree to which differences were present in school accountability ratings and progress measures by the experience of principals. Inferential statistical procedures for both school years revealed accountability status of elementary schools was statistically significantly related to the average years of experience of the principal. Elementary schools with Experienced principals performed at the Met Standard or achieved A status more than schools with Moderately Experienced or Inexperienced principals. As such, principal experience was clearly established to be positively related to school accountability results. School district leaders and education policymakers are encouraged to develop programs to retain principals. As clearly established in this empirical investigation, principal experience matters.

In the area of reading, differences in growth measures were present for Grade 4 students but were not present for Grade 5 students. Concerning mathematics, differences were present for both Grade 4 and Grade 5 students in the 2018-2019 school year but not in the 2017-2018 school year. Grade 4 students in schools with Experienced principals were more likely to meet the Expected or Accelerated growth on the Reading STAAR than students in schools with Moderately Experienced or Inexperienced principals. With respect to the years analyzed in this study, Grade 5 students demonstrated higher growth on the reading assessments than Grade 4 students but did not show statistically significant differences based on principal experience. This discrepancy between the two grade levels in reading may be a result of the Student Success Initiative which occurs in Grade 5 and allows students to take the assessment more than once if not successful.

Considering the results of these studies, the consequences of being in schools with Inexperienced principals are evident in school accountability and progress in reading and mathematics. Particularly concerning were the differences between student progress in schools with Inexperienced and Experienced principals. Principal experience was clearly established as an influence on student achievement and progress in reading and mathematics.

According to research from the Annie E. Casey Foundation (2010), millions of students leave third grade without being able to read proficiently, most from low-income families. The gaps continue to widen during the late elementary school and into middle school, eventually leading to a dropout crisis. We know that having an effective teacher is the most influential factor in improving student outcomes (Marzano, Waters, & McNulty, 2005). Experienced, knowledgeable principals are next on the list of holding the most influence and these same leaders are recruiting, selecting, and, hopefully, retaining the effective teachers. School districts must find funding, strategies, and resources that will develop and support our most effective principals so these achievement gaps can begin to shrink.

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APPENDIX



Date: Jan 6, 2021 10:11:16 AM CST

TO: Katherine Roede John Slate

FROM: SHSU IRB

PROJECT TITLE: Differences in Texas School Accountability Ratings and Student Progress Measures as a Function

of the Campus Principals' Average Years of Experience

PROTOCOL #: IRB-2020-369 SUBMISSION TYPE: Initial

ACTION: Exempt

DECISION DATE: January 6, 2021

EXEMPT REVIEW CATEGORY: Category 4. Secondary research for which consent is not required: Secondary research uses of identifiable private information or identifiable biospecimens, if at least one of the following criteria is met:

- (i) The identifiable private information or identifiable biospecimens are publicly available;
- (ii) Information, which may include information about biospecimens, is recorded by the investigator in such a manner that the identity of the human subjects cannot readily be ascertained directly or through identifiers linked to the subjects, the investigator does not contact the subjects, and the investigator will not re-identify subjects;
- (iii) The research involves only information collection and analysis involving the investigator's use of identifiable health information when that use is regulated under 45 CFR parts 160 and 164, subparts A and E, for the purposes of "health care operations" or "research" as those terms are defined at 45 CFR 164.501 or for "public health activities and purposes" as described under 45 CFR 164.512(b); or
- (iv) The research is conducted by, or on behalf of, a Federal department or agency using government-generated or government-collected information obtained for nonresearch activities, if the research generates identifiable private information that is or will be maintained on information technology that is subject to and in compliance with section 208(b) of the E-Government Act of 2002, 44 U.S.C. 3501 note, if all of the identifiable private information collected, used, or generated as part of the activity will be maintained in systems of records subject to the Privacy Act of 1974, 5 U.S.C. 552a, and, if applicable, the information used in the research was collected subject to the Paperwork Reduction Act of 1995, 44 U.S.C. 3501 et seq.

Greetings,

Thank you for your submission of Initial Review materials for this project. The Sam Houston State University (SHSU) IRB has determined this project is EXEMPT FROM IRB REVIEW according to federal regulations.

We will retain a copy of this correspondence within our records.

* What should investigators do when considering changes to an exempt study that could make it nonexempt?

It is the PI's responsibility to consult with the IRB whenever questions arise about whether planned changes to an exempt study might make that study nonexempt human subjects research.

In this case, please make available sufficient information to the IRB so it can make a correct determination.

If you have any questions, please contact the IRB Office at 936-294-4875 or <u>irb@shsu.edu</u>. Please include your project title and protocol number in all correspondence with this committee.

Sincerely,

Chase Young, Ph.D. Chair, IRB Hannah R. Gerber, Ph.D. Co-Chair, IRB

VITA

Katy M Roede

Educational History

Doctorate of Education – Educational Leadership (May 2021)

Sam Houston State University, Huntsville, Texas

Dissertation: Differences in Texas School Accountability Ratings and Student Progress

Measures as a Function of the Campus Principals' Average Years of Experience

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Bachelor of Science in Secondary Spanish Education (May 1994)

University of Wisconsin-Madison, Madison, Wisconsin

Professional Licensure and Certifications

Superintendent Principal EC-12 ESL 6-12 Spanish 6-12

Presentations and Publications

- Roede, K., & Slate, J. R. (2019). Differences in student achievement as a function of principal experience: A national analysis. *Journal of Interdisciplinary Sciences*, 3, 1-9.
- Roede, K. (2019, February). Effects of Texas's Accountability System on Select Elementary School Principals Who Serve a Title I Campus. Paper presented at the annual conference of the Southwest Educational Research Association Conference, San Antonio, TX.
- Roede, K. (2019, February). *Am I Enough: The effects of Texas's Accountability System on Principal Self- Efficacy at Title 1 Schools.* Paper presented at the Texas Alliance of Black School Educators James A. Johnson Research Institute, Galveston, TX

Professional Experiences

2018-Present	Aldine ISD, Chief of Schools
2015-2018	Houston ISD, School Support Officer
2005-2015	Aldine ISD, Principal
2000-2005	Aldine ISD, Curriculum Assistant Principal
1998-2000	Aldine ISD, Program Director of Secondary English as a Second
	Language
1994-1998	Aldine ISD, Teacher