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Factors that Contribute to PK-12 Teacher Retention in One Midwest School District

A dissertation

presented to

the faculty of the Department of Educational Leadership and Policy Analysis

East Tennessee State University

In partial fulfillment

of the requirements for the degree

Doctor of Education in Education Leadership

by

Jeffery E. Phillips

December 2019

Dr. James Lampley, Chair

Dr. Virginia Foley

Dr. Lori Meier

Dr. Stephanie Tweed

Keywords: Teacher Retention, Education, Fit, Compensation, Leadership, Mentorship

ABSTRACT

Factors that Contribute to PK-12 Teacher Retention in One Midwest School District

by

Jeffery E. Phillips

The purpose of this quantitative study was to determine relationship of the distinct factors to PK-12 teacher retention in one Midwest school district. This study was an examination of multiple factors including work environment, fit, compensation and benefits, leadership, performance management system, peer support, and mentoring, that contributed to the retention of PK-12 teachers with different levels of education, certifications, experience, career plans, and military affiliation. The questions on the Teacher Retention Survey used a Likert-type scale to measure teacher perceptions about retention factors to address 8 research questions.

For this study, I surveyed the population of 704 current PK-12 teachers in a public unified school district located in central Kansas using a non-random sample method. The unified school district is comprised of 14 elementary schools (grades PK-5), two middle schools (grades 6-8), and one high school (grades 9-12). The unified school district is located adjacent to a large U.S. Army installation and supports a culturally diverse educational environment with a majority of the district's students being military-connected in some way. The survey was administered at the beginning of the 2019-2020 academic school year and resulted in 210 usable surveys collected with a 29.8% return rate.

The results of the study showed that there were differences in how PK-12 teachers perceived the six dimensions of the Teacher Retention Survey depending on demographic groupings. Results indicated that there were differences in how teachers perceived fit, the evaluation process, and mentorship. There were also differences in how teachers perceived leadership and the evaluation process depending on gender. Teachers' education level appeared to affect perceptions of the work environment and fit, and certification appeared to influence how teachers viewed leadership and the evaluation process. Teachers' career plans seemed to influence perceptions of the evaluation process and mentorship. Military affiliation and teachers' experiences of working in multiple schools or districts did not appear to affect perceptions about retention factors. By identifying factors that contribute to teachers' decision to remain in the field, school leadership can attempt to make improvements to those factors to prevent voluntary attrition.

DEDICATION

I am blessed to have an exceptionally supportive family that has helped me in all facets of my life. This research is dedicated to them because it would not have been possible without their support and encouragement. I love them all and truly thank them for everything.

I was fortunate to grow up with a father who also happened to be my hero, cheerleader, and greatest mentor. He taught me how to treat others, work hard, deal with every type of situation, laugh at every opportunity, and chase every dream. I would not be the person that I am today without his direction, influence, leadership, and friendship.

Equally influential was my mother who taught me to be a good person and to treat others with respect and dignity. Although she passed away before I started this program, I know that she is watching from above and is smiling down on me.

I have also been blessed to be married to my wife Anna. She is my best friend and biggest supporter. Throughout all the years, and especially during this doctorate program, she has always supported me in every way. Her sacrifices and untiring support afforded me the opportunities to chase every dream. Her love and support made all this possible.

Finally, my daughter Addyson and son Hunter are instrumental in everything that I try and every success that I have. As a parent I am always conscious of the example that I set and hope that this shows anything is possible. I want them to know that they can accomplish everything that they dedicate themselves to. I hope they follow their passions, chase all their dreams, blaze their own paths through life, and remember that they are always loved.

ACKNOWLEDGMENTS

I would like to take this opportunity to acknowledge my committee; Dr. Lampley, Dr. Foley, Dr. Meier, and Dr. Tweed. Their guidance, direction, and expertise made this an exciting and rewarding journey. I would not be at this stage of the process without them. They helped focus my study, provided invaluable input, worked nearly as hard as I did during the editing process, and always encouraged me along the way. Thanks so much for everything!

Also, I would like to acknowledge Mr. David Wild for his support throughout the course of this study. He served as my mentor during my internship, helped provide ideas for my study, allowed me to gather information on his school district, and eventually agreed to let me survey all the teachers for data analysis. His support made all the difference and I am forever grateful.

Finally, I would like to acknowledge East Tennessee State University and the U.S. Army for the impacts both have had on my life. Many years ago I left my undergraduate program at ETSU with a degree and U.S. Army commission as a Second Lieutenant. Success at ETSU and in the Army gave me the confidence to chase even more dreams. These two institutions allowed me to see the world, chase all my dreams, and provided the opportunities to achieve more than I could ever imagined.

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CHAPTER 1

INTRODUCTION

According to the Society of Human Resource Management one of the most critical issues facing organizations today is determining effective ways to retain employees (Allen, 2008). The PK-12 education field is no exception. It is estimated that 20% of new teachers leave the profession within their first 3 years on the job and this increases to a 50% attrition rate within the first 5 years on the job (Barnatt et al., 2016). This problem is even more significant considering that demand for elementary and secondary teachers is expected to increase by 7% from 2016 to 2026, which equates to an additional 116,300 jobs created within that time span (Bureau of Labor Statistics, U.S. Department of Labor, 2019). The factors that contribute to teacher retention need to be further addressed because education is a career field where voluntary turnover is already creating a shortage of qualified employees.

To better understand the scope of teacher attrition, it is helpful to review key demographics of the PK-12 teacher profession. In the fall of 2016, it was estimated that there were 3.6 million elementary and secondary school teachers working in both public and private schools. Public school teachers earned an average salary of \$58,064 in the 2015-16 school year. Since the 1970s the number of students in the classroom has gradually increased to 12 for private schools in 2014, 21 for public elementary schools in 2012 and 26 for public secondary schools in 2012. While the U.S. Department of Education reports a smaller number of teachers leaving the profession than Barnatt et al. (2016), it still reported that 8% left the profession and another 8% left their current school. The U.S. Department of Education also noted that teachers with 1-3 years of experience were particularly mobile with 13% moving to

another school and 7% leaving the teaching profession in 2012–13 (U.S. Department of Education, National Center for Education Statistics, 2017).

Understanding that turnover is comprised of both voluntary turnover, which is initiated by the employee, and involuntary turnover, which is initiated by the organization (Allen, 2008). Within the classification of voluntary turnover, there are two important subcategories, avoidable and unavoidable turnover. Avoidable turnover occurs when teachers leave the school because of reasons such as job satisfaction, low salaries, and problems with leadership. Unavoidable turnover occurs when teachers leave the school due to reasons such as the relocation of a spouse, a planned return to college, or the birth of a child. The distinction of avoidable and unavoidable voluntary turnover is important because it helps focus management on where to devote effort and resources to reduce avoidable voluntary turnover. Allen reported that researchers at the Society of Human Resource Management derived that turnover poses important challenges for companies because it is costly, affects overall performance, and is difficult to manage.

There are significant costs associated with employee turnover, and these costs include time, money, and other resources to find, recruit, hire, and train new employees. Allen (2008) cited a Society of Human Resource Management report that direct replacement costs are estimated at 50% to 60% of an employee's annual salary, while total cost was estimated at 90% to 200% of annual salary. In 2014 Heineke, Mazza, and Tichnor-Wagner found that districts with low teacher retention rates spent millions of dollars each year trying to recruit and train new teachers. Based on cost alone teacher attrition would be a critical challenge for education; however, it significantly impacts school and student performance as well.

Teacher attrition affects the overall performance of the school and its students (Koedel & Xiang, 2016). The turnover of teachers not only costs the schools time, money, and other resources to replace departed teachers, it affects staff relations and coworker job satisfaction, that can lead to other staff members deciding to leave the school as well. Teacher attrition can impact students as evidenced by Koedel and Xiang's (2016) finding that experienced teachers were more effective, so teacher retention was critical to the effective learning of students. The impact of teacher attrition on school administration, coworkers, and students differs for each group, but there are negative aspects for each.

The problem of managing teacher attrition is complex because there is an existing shortage of qualified teachers due to attrition coupled with an expected 6% increase in demand in the coming years. Teacher attrition could contribute to a talent scarcity where it will be difficult to fill teacher vacancies with qualified employees. The Society of Human Resources Management attributed "demographic shifts, inadequate educational systems, increasingly mobile employees, and even generational differences in perceptions about the nature of work and careers" to talent scarcity across career fields (Allen, 2008, p. 5).

There have been multiple efforts conducted to improve teacher retention including the implementation of new teacher support programs, mentoring programs, pension enhancements, new evaluation systems, teacher retention bonuses, and leadership development programs. Despite these efforts it is still estimated that 20% of new teachers will leave the profession within their first 3 years on the job and 50% of teachers will leave within the first 5 years on the job (Barnatt et al., p. 2).

Statement of the Problem

The purpose of this quantitative study was to determine the distinct factors that contribute to PK-12 teacher retention. By identifying factors that contribute to teachers' decision to remain in the field, school leadership can attempt to make improvements to those factors to prevent voluntary attrition. Based on the review of literature there have been multiple efforts to improve teacher retention including the implementation of new teacher support programs, mentoring programs, pension enhancements, new evaluation systems, teacher retention bonuses, and leadership development programs. This study is designed to determine which factors are valued by PK-12 teachers in the participating school system.

Research Questions

I investigated different factors that contribute to PK-12 teacher retention and identified areas where school leadership can make significant improvements in reducing avoidable voluntary attrition. The following eight questions were used to guide this study.

Research Question 1: Is there a significant difference in the mean scores of PK-12 teachers for the six dimensions of the Teacher Retention Survey among the years of experience categories (0-3 years, 4-8 years, or more than 9 years)?

Research Question 2: Is there a significant difference in the mean scores of PK-12 teachers for the six dimensions of the Teacher Retention Survey between male and female teachers?

Research Question 3: Is there a significant difference in the mean scores of PK-12 teachers for the six dimensions of the Teacher Retention Survey among the level of education categories (bachelor's degree or master's degree)?

Research Question 4: Is there a significant difference in the mean scores of PK-12 teachers for the six dimensions of the Teacher Retention Survey among the number of schools categories (1 school, 2 schools, 3 schools, or 4 or more schools)?

Research Question 5: Is there a significant difference in the mean scores of PK-12 teachers for the six dimensions of the Teacher Retention Survey among the number of school districts categories (1 district, 2 districts, 3 districts, or 4 or more districts)?

Research Question 6: Is there a significant difference in the mean scores of PK-12 teachers for the six dimensions of the Teacher Retention Survey among the areas of certification categories (elementary education, secondary education, or multiple certifications)?

Research Question 7: Is there a significant difference in the mean scores of PK-12 teachers for the six dimensions of the Teacher Retention Survey between teachers who have a military affiliation (veterans themselves or have spouses who have previously or are currently serving in the armed forces)?

Research Question 8: Is there a significant difference in the mean scores of PK-12 teachers for the six dimensions of the Teacher Retention Survey among the career plans categories (continue to work as a teacher or plan to leave the teaching profession within 3 years)?

Significance of the Study

This study was a quantitative examination of different factors that contribute to PK-12 teacher retention. By surveying teachers in a Kansas Unified School District using a sample of the population, I collected responses from teachers at 14 elementary schools (grades K-5), two middle schools (grades 6-8), and one high school (grades 9-12). One unique aspect of this

study was that it centered on a Midwest school district that serves a population of students drawn from both the local community and a large military installation. The school district supports a culturally diverse educational environment and a majority of the students are military-connected in some way. I identified dimensions that teachers value based on different demographic aspects, so leaders may be able to use this research to avoid voluntary attrition. This research may also serve as a resource for school districts when considering changes to the work environment, support and mentoring programs, compensation initiatives, teacher evaluation systems, and leader development. I also suggested additional research opportunities related to teacher retention.

Definition of Terms

The Definition of Terms section contains selected terms used in this dissertation that may need clarification for the reader.

Employee Retention: Business Dictionary defines employee retention as “an effort by a business to maintain a working environment which supports current staff in remaining with the company. Many employee retention policies are aimed at addressing the various needs of employees to enhance their job satisfaction and reduce the substantial costs involved in hiring and training new staff” (p.1). For the purpose of this study, employee retention was further defined as any single action or combination of actions by school administration to influence teachers to remain in the education field (Business Dictionary, 2019).

Voluntary Attrition: Attrition occurs when an employee voluntarily abandons a position due to retirement, resignation, or other similar reasons. With attrition there is not an immediate replacement employee to assume the role of the departing employee. The attrition of an employee affects the organization because he or she leave with skills and qualifications due in

part to his or her experiences (Mayhew, 2017). In the context of this study, voluntary attrition of teachers was viewed as having negative impacts on the school system.

Work Environment: For the purpose of this study a teachers' work environment not only included the physical place of employment where they teach but was expanded to include other components such as safety, teacher shortages, induction programs, class size, and perceptions of support from administration and parents (National Center for Education Statistics, 1999).

Fit: Heathfield (2018) described job and cultural fit as key components in firing and retaining employees. Person-job fit is the match between an employee's strengths, needs, and experience and the demands of a particular job. Cultural fit is the consideration of whether an employee will work well in an organization's culture. Employees will likely leave an organization if the values and beliefs are not shared. There are also aspects of community fit where it is important for an employee to relate to the community where one lives.

Compensation and Benefits: Compensation is defined as the monetary reward that employees are receive for doing their jobs, and benefits are those nonmonetary rewards for doing a job that can include paid time off, health care, defined contribution plans, pension plans, and family-friendly benefits (Miller, 2016).

Leadership: For the purpose of this study leadership was defined as the educational leaders responsible for affecting the climate, attitude, and reputation of the school and its teachers. Leadership was responsible for building the team, supporting teachers, having a vision for the school, setting expectations, creating a learning environment (University of San Diego), and professionally developing subordinates.

Performance Management System: For this study the performance management system was defined as both the performance appraisal process and employee development. An effective performance management system clarifies expectations and responsibilities, builds teamwork, develops employee capabilities, aligns employee behavior with organizational goals, improves communication, and provides a basis for personnel decisions (Pulakos, 2004).

Peer Support: For the purpose of this study peer support is the process where teachers that share common experiences and challenges come together to share views, opinions, knowledge, empathy, assistance, and encouragement (Penny, 2018).

Mentoring: For the purpose of this study mentoring was defined as a formal or informal program where relationships were formed between a mentor and a mentee. During the course of the relationship the mentor provides the mentee with challenges, encouragement, and direction and promotes individual growth (Labin, 2017).

Limitations and Delimitations

This study was delimited to one Unified School District that services a population of students drawn from both the local community and a large military installation. Because of the proximity of the military installation, some of the teachers are military spouses and move with their service member when the member incurs a permanent change of station. Because these teachers are somewhat transient employees, they may value some dimensions of employment more than teachers who take employment in a school district and remain there on a more permanent basis. Some teachers may be newly assigned to the school district but had experiences in other school districts before taking this position.

Because the study had participants from 17 different schools within the school district, some schools may have a higher participation rate and thus had a greater impact on the results.

To maintain confidentiality there was no attempt to tie respondents to specific schools; therefore, different percentages of teacher responses at schools is not factored into the results of the study. Additionally, some teachers may not have answered the survey truthfully or skipped questions altogether.

Another delimitation of this study is the time frame that this survey was administered. I administered a survey to the population of PK-12 teachers in the Unified School District at the beginning of the 2019-2020 academic school year. The school district experienced significant leadership turnover at the beginning of the 2019 calendar year when it named a new superintendent and announced the pending retirement of the Assistant Superintendent. Combining the school district's leadership turnover with the routine hiring of new teachers at the beginning of the school year, there is a strong possibility that some respondents answered questions without a full understanding of any changes or initiatives that were being implemented for the coming school year.

I collected survey responses using a Likert-type scale to measure perceptions and attitudes of the respondents. My survey contained six values (strongly agree, agree, somewhat agree, somewhat disagree, disagree, and strongly disagree) and produced data addressing levels of satisfaction concerning environment, fit, compensation, leadership, evaluations, peer support, and mentoring. Although the Likert-type scale responses to the survey provided data that was ordinal, discrete, and somewhat limited in range, I used an Analysis of Variance (ANOVA) and independent sample t tests to test the differences between two or more means.

Another limitation to this study is my choice to use a quantitative research method to gain a better understanding of the factors that affect teacher retention. I chose a quantitative research method because it allows me to gather information about a limited set of questions

from a larger number of participants. The information can then be generalized and applied to a larger population (Patton, 2015), particularly school districts servicing students from both local communities and military installations.

Overview of the Study

This study is presented in five chapters. Chapter 1 contains an introduction, statement of the problem, research questions, significance of the study, definition of terms, delimitations, and limitations. Chapter 2 contains a review of literature that focuses on causes of teacher attrition and previous attempts to improve teacher retention. Previous attempts to improve teacher retention addressed include changes to the working environment, implementation of support and mentoring programs, compensation initiatives, changes to performance management systems, and creation of leader development programs. Chapter 3 contains the methodology and data collection process for this study. This chapter also provides specific information about the survey instrument. Chapter 4 includes the data and analysis of the information using quantitative statistical methods. Chapter 5 provides a summary and recommendations for future practice and research regarding teacher retention.

CHAPTER 2

REVIEW OF LITERATURE

As introduced in the first chapter of this study, the Business Dictionary (2019) defined employee retention as “an effort by a business to maintain a working environment which supports current staff in remaining with the company. Many employee retention policies are aimed at addressing the various needs of employees to enhance their job satisfaction and reduce the substantial costs involved in hiring and training new staff” (p.1). For the purpose of this study employee retention was further defined as any single action or combination of actions by school administration to encourage teachers to remain in the education field. While several examples in this literature review will address organizations as a whole, I will attempt to identify areas that are specific to teachers and the PK-12 school setting when applicable.

Employee retention is not solely a concern for PK-12 schools, and the Society of Human Resource Management (SHRM) reported that retention of quality employees was a major concern for all organizations (Allen, 2008). Allen stressed that retaining employees required an emphasis on job satisfaction and creating more engagement between the individual employee and the company that he or she works for. Researchers established that the leading contributors of job satisfaction included respectful treatment, compensation, trust, security, and opportunities to use skills. The organization benefitted because employee retention increased performance, productivity, morale, and quality. SHRM also reported that retention and turnover were cited as the top management challenge for 47% of human resource professionals.

The idea of employee engagement was further elaborated by Lockwood (2007) when he stressed the importance of employee engagement in support of meeting organizational goals. Employee engagement was defined as the extent employees were committed to their job, their willingness to work, and their desire to stay at the organization, and this engagement was strongest when there was a connection between the employees' understanding that their efforts were important and that their efforts contributed to supporting the organizational strategy. Employees with high engagement performed 20% better and were 87% less likely to leave an organization when compared to employees without high engagement. Lockwood noted there were cognitive, emotional, and behavioral aspects of engagement that must be considered. The employee's beliefs about the company, leadership, and culture were considered cognitive. The emotional component was simply how the employee felt about his or her company, its leaders, and coworkers. Finally, the behavioral aspect was how the employee translated his or her beliefs and feelings into his or her effort in performing the job.

Voluntary and involuntary are the two classifications of separation that captures how employees leave an organization. The Society of Human Resource Management classified employees leaving an organization for another job, to attend school, moving with a spouse, retirement, conflict, or just no longer needing to work as voluntary turnover. In this type of situation the employee chose if and when he or she wanted to exit the organization. It was classified as involuntary turnover when employees were terminated or laid off. In this type of situation management determined if and when an employee left the organization. With both types of attrition there was not an immediate replacement employee to assume the role of the departing employee, so the absence affected the working conditions of other employees and caused a reduction in productivity for the organization. The attrition of an employee affected

the organization because he or she left with skills and qualifications due in part to his or her experience gained from performing the job (Mayhew, 2017). In the context of this study voluntary attrition of teachers was viewed as having negative impacts on the school system.

Teacher Retention

Inman and Marlow (2004) identified the factors that caused teachers to leave or remain in the teaching profession. The researchers classified teachers with 0-3 years of experience as beginning teachers and teachers with 4-8 years of experience as experienced beginners, and then they surveyed a sample of the population to see what external and internal factors affected their decision to remain in the profession. Inman and Marlow identified several reasons why teachers leave the profession and those included demographics, teacher background, environment, and lack of support systems, salary, professionalism, and collegiality. Other less often cited reasons included disruptive students, uninvolved parents, bureaucracy, mandated programs, and the requirement for increased teacher knowledge and skills. Inman and Marlow derived that both beginners and experienced beginners had varying reasons for remaining, but salary was the only significant external factor that caused them to remain in the profession. Both groups noted that job security was an important internal factor in their decision to remain, but the experienced beginners constructed several other employment factors more important when compared to the beginners' values. Inman and Marlow concluded that newer teachers found value in remaining in the profession, and school administrators could improve retention by offering mentorship, encouraging peer support, and strengthening ties to the community.

Other research demonstrated why teacher retention is complex and teacher attrition is a difficult problem to solve. There are conflicting reasons that teachers chose to stay or leave

the profession. According to a National Education Association survey that asked why teachers stay in the profession, the top three answers were that teachers enjoyed working with young people, felt that education was important, and that they had a passion for the subject matter that they taught (Moulthrop, Calegari, & Eggers, 2006). According to research from the National Center for Education Statistics, the three most common reasons that teachers left the profession were retirement, pregnancy, and changing careers. Moulthrop et al. found that changing careers was the second most common reason that new teachers gave for leaving the profession. Unlike the results from the National Center for Education Statistics findings, Moulthrop et al. predicated that poor compensation was the reason most cited for teachers choosing to leave.

Edwards's 2003 study provided valuable insight on how school administration's actions affect the retention of veteran employees. While there are studies that address efforts in retaining teachers with less than 5 years of experience, there are considerably fewer that research the aspects of retaining more experienced teachers. Edwards's interviews of veteran teachers revealed that this group did not feel appreciated by the school administration and in some cases even felt that the school administration was actively trying to push them out in order to save money. The veteran teachers perceived that their experience, opinions, and questioning of new policies caused conflicts with school leadership. Edwards concluded that when administrators involved veteran teachers in the decision-making process, then implementation of new policies was more successful. Veteran teachers offered suggestions on benefits that could help their retention including professional development opportunities, financial incentives, visiting other schools, smaller classes, reduced workloads, and permission to try new teaching approaches. This particular subset of teachers is not routinely

studied, but veteran teachers contribute significantly to the education process and should not be omitted when examining teacher attrition.

The Society of Human Resource Management reported that employees generally remained with an organization if the benefits and rewards were equal to or greater than the contributions required of them to perform the job (Allen, 2008). Based on their findings, they concluded that employees left when they were dissatisfied, had better opportunities, planned to change jobs, or had a negative experience in the workplace. The remaining sections of this chapter will focus on factors that comprise the benefits and rewards of teaching. The factors that will be described include the work environment, fit, compensation and benefits, leadership, performance management systems, peer support, and mentoring. All these factors have been studied in previous research efforts to address retention in various fields.

Work Environment

As defined in the introduction chapter, a teachers' work environment not only included the physical place of employment where they taught, but was expanded to include other components such as safety, teacher shortages, and class size (National Center for Education Statistics, 1999). A perceived lack of safety in the workplace can lead to attrition. The impacts of teacher shortages can weigh significantly on teachers' decisions to remain in the profession. Finally, the pressures of teaching a large number of students can lead to high levels of stress and even burnout for teachers.

A significant recent trend that likely impacts and reflects school culture is the actual increase in the number of state-wide teachers strikes in West Virginia, Kentucky, Oklahoma, Arizona, and Colorado. Although teacher pay was a central issue in the teachers' decision to strike, many teachers and parents also protested large class sizes, lack of resources, poor

working conditions, and insufficient school funding (Darling-Hammond, 2018). All of these issues can fit under the auspice of building and improving organizational culture and specifically relate to the values, people, and place components of culture.

In addition to safety, teacher shortages, and class size, Musu-Gillette et al. (2018) described many other challenges that teachers faced in their work environment. The report was composed of data gathered during the 2015–16 school year. Teachers reported that student behavior was a challenge, and 43% of public-school teachers reported that student misbehavior interfered with their teaching. Thirty-eight percent of teachers also reported that student tardiness and class cutting affected their ability to effectively educate their students. Thirty-three percent of teachers reported that other teachers in their school did not enforce school rules, while 16% of teachers did not think that the school principal enforced the rules. The researchers also reported that there were 1,600 reported firearm possession incidents at schools in the United States during the school year. It is worth noting that teachers with fewer than three years of experience reported the highest level of frustration when compared to more experienced teachers.

Moulthrop et al. (2006) identified other workplace pressures and reported that two important factors that affect how teachers function in the classroom include the constant pressure of being in the present and the requirement to adapt to an exchanging environment. Because teachers were in the presence of their students for the entire work day, they constantly felt the pressure of being responsible for the students' physical, emotional, and psychological needs. The environment was constantly changing and the teacher was responsible for managing the pace, timing, and instruction to maximize student learning. Students learned at different rates; therefore, teachers must constantly adjust methods to

appeal to more students. These two factors combined with many others to create a demanding work environment.

Safety

Teachers are often the target of violence in their workplace. Musu-Gillette et al. (2018) found that 79% of public schools recorded incidents of violence, theft, or other crimes, that amounted to 1.4 million crimes across the United States in the 2015-16 school year. They also reported that teachers were often the target of violence during this same timeframe. It was estimated that 10% of public-school teachers reported that students had threatened to physically injure them and 6% reported that they had been physically attacked. The highest percentage of threats and physical attacks were directed at elementary public-school teachers.

Kondrasuk, Greene, Waggoner, Edwards, and Nayak-Rhodes's 2005 study defined violence as any physical threat or harm directed at any school employee, and the researchers found that from 1999 to 2005 there had been deadly incidents of violence in Pennsylvania, Kentucky, Mississippi, Alaska, Washington, Tennessee, New Mexico, Oregon, California, Minnesota, and Florida. The researchers reported that teachers were three times more likely to be the target of violence crimes compared to other students. Based on their survey of school administrators in Portland, Oregon, Kondrasuk et al. found the perceived causes of violence by students included poor home lives, drug and alcohol abuse, gang influence, weapon access, school physical characteristics, and ineffective school discipline policies.

Muschert (2007) researched violence in schools and focused on school shootings and media coverage. School shootings were categorized as rampage shootings, mass murders, terrorist attacks, targeted shootings, and government shootings. While the author noted that evidence suggests that schools are safer for students than other environments, intense media

coverage of school violence creates the perception that they are not. Despite the public perception that school shootings are increasing in frequency and are an emergent social problem, Muschert suggested that this phenomenon could be attributed to intense media coverage rather than an actual increase of violence.

Shortages

Another factor that could impact the teachers' work environment is a shortage of qualified teachers to fill vacant positions. Aragqon (2016) predicated that the overall teacher labor market could have potential problems with recruitment in the future due to the decline of high school students expressing interest in pursuing education degrees in college and declining enrollments in teacher preparation programs nationwide. Teacher shortages within states were impacted by state policies regarding licensure and credentials, the number of high-demand subjects, and the locations of the vacancies. Subjects like special education, math, and science and locations that were urban, rural, high-poverty, high-minority, and low-achieving schools faced the largest number of shortages. In response to these type teacher shortages, many states loosened hiring standards, issued emergency teaching certificates, and increased the workload of existing teachers. These type responses to teacher shortages could have negative impacts on the teachers who chose to remain.

Class Size

The number of students that a teacher was required to teach, or often referred to as class size, was another important aspect of the teacher's work environment (Chingos & Whitehurst, 2011). They examined class size and established that it was often credited with influencing student learning and was often a topic of state legislation with 24 states having mandated class-size limitations. States and school districts faced pressure to increase these

limits due to fiscal pressures, but because smaller class size was credited with improving student performance, there was also pressure to find other ways to reduce cost. The researchers found that for class-size reductions to have any long-term effects on student performance, then the class size needed to be reduced by 7-10 fewer students per class and was most effective for students in earlier grades. There was also evidence that class reductions had the greatest effect on students from less advantaged families and benefited less experienced teachers most. The researchers also cautioned that smaller class sizes increased cost and that teacher salaries were likely negatively impacted due to fiscal constraints.

Considering the factors identified in this section, the work environment for PK-12 teachers can be challenging and teachers run the risk of experiencing high levels of stress or even burnout. Both can contribute to teacher attrition or at a minimum, negatively impact teaching quality (Wong, Ruble, Yu, & McGrew, 2017). They examined how stress and burnout impacted teacher performance, teaching quality, and student engagement. They defined stress as the immediate influence of stressors on an individual and can be specific or general. The researchers were more concerned with burnout and defined it as an outcome or feature of chronic stress. Burnout was comprised of emotional exhaustion, depersonalization, and reduced personal accomplishment, and the researchers determined that 40% of teachers in their study were categorized as burned-out and were at risk of leaving the profession.

Fit

As introduced in the first chapter, fit in this study considers aspects of job, culture, and community and how it relates to an employee's decision to remain employed in an organization (Heathfield, 2018). Person-job fit occurs when there is a match between an employee's strengths, needs, and experience and the demands of a particular job. Cultural fit

is the consideration of whether an employee will thrive in an organization's culture.

Employees will likely leave an organization if the values and beliefs are not shared. Finally, the concept of community fit is how well an employee connects with the community where they live and work. This section provides information about person-job fit, organization culture fit, and community fit and helps to explain how fit is important and can influence teachers' decision to remain in the profession.

Person-Job Fit

There are multiple aspects that must be considered when addressing person-job fit, and those aspects include an employee's knowledge, skills, abilities, and attitude compared to the job demands and tasks (Christiansen, Sliter, & Frost, 2014). The researchers expanded the employee aspects of person-job fit by introducing employee personality traits as a key component. The researchers examined if employees became distressed when job demands did not match employees' personality traits and temperaments. Christiansen et al. found that employees received both intrinsic and extrinsic rewards when performing work that matched their personalities and temperament. Conversely, the employees experienced levels of distress when they were routinely asked to perform job tasks that did not match their personality traits. High levels of distress could lead to employee psychological strain, depression, anxiety, and even burnout. While it may seem intuitive that employees are happiest when performing the functions of a job that match their own personality traits, fit requires other aspects including those of culture and community.

Deniz, Noyan, and Ertosun (2015) studied the relationship between person-job fit and stress. They considered that person-job fit was the match between the employee's needs, desires, preferences, and anticipated rewards to the job demands. Person-job unfit occur when

an employee cannot meet the demands of the job without experiencing high levels of stress. This high level of stress would reduce the employee's abilities to function properly and to adapt to changing demands of the job. They concluded that person-job fit and job stress had a statistically significant relationship in that if there was not a match with the employee's attributes and the demands of a particular job then the employee will likely feel a lack of social support and control.

Organization Culture Fit

Manning (2013) introduced two different perspectives of organizational culture, the corporate culture approach and the anthropological approach that can also help explain the importance of organizational culture in the elementary and secondary school setting. According to Manning corporate culture can be defined as “a pattern of shared basic assumptions learned by a group as it solved its problems of external adaptation and internal integration, which has worked well enough to be considered valid and, therefore, to be taught to new members as the way to perceive, think, and feel in relation to those problems” (p. 92). The anthropological approach views culture as a “set of meanings that people act out, talk out, and back up with their own armamentarium of forces – psychological, moral and physical” (p. 93). The educational environment of elementary and secondary schools has commonalities that include some autonomy of faculty, high number of stakeholders, conflicting goals, and societal investment. Elementary and secondary schools do not fit perfectly into either approach, but there are aspects in both definitions that help to explain the school's culture. Elementary and secondary schools form their cultures using values, assumptions, history, tradition, context, language, and symbols.

Northouse (2016) described culture from a macrolevel and defined it as “learned beliefs, values, rules, norms, symbols, and traditions that are common to a group of people. It is these shared qualities of the group that make them unique” (p. 428). The author also noted that culture is important because it was dynamic, transmittable, and served as a script for how people should act. The author was focused on differing cultures throughout the world; however, the description can be applied to the cultures of PK-12 schools in that each school develops a unique culture that is transmitted to new members including teachers and students.

An elementary or secondary school’s culture may play a critical role in teacher retention and student achievement. Evidence of strong school cultures included aspects such as trusted teachers, challenged students, supportive administration, and engaged parents. For schools to have strong cultures, they also needed teachers who collaborated, had ties to the community it served, functioned with strong school leadership, and promoted an environment that was safe for students and faculty. The benefits to a strong and positive culture include examples such as lower teacher attrition, improved student graduation rates, reduced truancy rates, and improved college readiness (Sheehy, 2012).

There are many factors that influence an organization’s culture (Coleman, 2013). Coleman pointed out that the six most important include vision, values, practices, people, narrative, and place. The vision helps to guide employee decision-making and provides the organization’s purpose. Values are a key component of culture because they set the guidelines for employee behavior and mindset. Practices are critical because they provide the evidence that values are what they are stated to be, and they are also the factor that the employees and other stakeholders could observe. The next factor is people, and an organization has to hire and retain employees who fit and reinforce the desired culture. An organization’s narrative

explains its unique history and is promoted to reinforce other aspects of the culture. The last component is place that includes the physical layout and other working conditions that reinforce or counter the desired culture.

Thomas (2018) described the process recruiters used to help match potential employees with the right organization where there was a cultural match. Thomas explained that this was a complex challenge that required knowledge of the potential employee, extensive research, referrals, recommendations, and a thorough understanding of the organization. By understanding the characteristics, traits, and ambitions of the potential employee and the culture of an organization, recruiters could make an appropriate fit. Thomas also explained that an organization displayed its internal culture through its facilities, employees, staff, clients, quality of services, and style. Thomas also suggested that potential employees meet people that work for an organization before deciding on accepting employment so there was an alignment of values and culture.

Community Fit

Allen (2008) learned that retention improved when employees were embedded in their jobs and communities, and these on and off the job relationships improved the retention of employees. The three types of connections that affected retention were referred to as links, fit, and sacrifice. Links were described as the relationships of employees with management, coworkers, friends, relatives, and members of the community. Employees who stayed with organizations also required a high level of fit in that they viewed their place, the organization, and community as compatible. Finally, Allen emphasized the importance of the employee's perceived sacrifice when deciding to leave an organization. If an employee had to sacrifice

too much to leave, including examples such as seniority, financial reward, or status, then he or she were less likely to leave.

To help illustrate the importance of the concept of links, fit, and sacrifice, the 2016 Barnatt et al. study supported Allen's (2008) findings. During a qualitative, longitudinal case study, Barnatt et al. (2016) examined how four teachers with similar backgrounds attempted to assimilate into the teaching profession and how their experiences differed. The first teacher began her career in an urban school and faced significant dissatisfaction with the school administration and felt alone in her pursuit of educating an underserved study body. She was able to eventually overcome the dissatisfaction with the school leadership and continued to teach at the school. The second teacher also entered an urban school and found that despite all her effort she was unable to make a significant difference in the lives of her students. After attempting to teach at three different schools, she left the teaching profession entirely. In the case of the third teacher, she initially adjusted quickly to teaching in a suburban school and connected philosophically with the school leadership. Despite success and a connection at her first school, she moved to a charter school and became frustrated with the school administration and eventually left the teaching profession. The fourth teacher in the study struggled from the onset and failed to develop relationships with other teachers and administration. She was released by the school and left the teaching profession entirely. In these four cases it was apparent that the teachers who developed strong links and fit with the school administration and study body continued to teach while those who did not left the profession.

Boyd, Grossman, Ing, Hamilton, Loeb, and Wyckoff (2011) concluded that teacher attrition was affected by teacher, student body, and school characteristics. Boyd et al.

discovered that the teacher characteristics that contributed to turnover included age, experience, education, and classroom effectiveness. They predicted that teachers who were most likely to leave the profession included those who were younger or older, less experienced, certified by early entry routes, and were less effective in the classroom. The researchers learned that schools with a student body comprised of low income, minority, and lower achieving students experienced the highest rates of teacher attrition as evidenced by studies conducted in New York, Georgia, and Texas. School characteristics also played a significant role in teacher attrition with the researchers highlighting the importance of “teacher influence, administrative support, staff relations, student behavior, facilities, and safety” (p. 306) combining to be accurate predictors of teacher turnover. Again, Allen’s (2008) concept of links, fit, and sacrifice were reinforced by the Boyd et al. (2011) findings.

Other studies supported the findings of Allen (2008) and Boyd et al. (2011) as they related to teachers’ decision-making considerations in regards to retention. Marston’s study (2014) reinforced Allen’s (2008) findings by concluding that teachers decided to continue teaching based largely on the relationships formed with others, how they fit in the school setting and community, and the personal sacrifice they would experience if they left the profession. The study conducted by Heineke, Mazza, and Tichnor-Wagner (2014) reinforced the findings from Boyd et al. (2011) and expounded on the list of factors that contributed to teacher attrition. Heineke et al. (2014) concluded that factors contributing to teacher attrition included working conditions, professional support, school administration, individual responsibilities, compensation, emotional burnout, student academic achievement, teacher effectiveness, school location, and teacher certification.

Roch and Sai (2016) helped identify that job satisfaction and teacher retention were not only public-school challenges but were also shared amongst charter schools. Roch and Sai established that despite the findings of previous research efforts, charter school teachers experienced less job satisfaction than public school teachers for reasons including lower wages, increased oversight, the accelerated growth of new charter schools, and the challenges associated with establishing a new school. The decreased job satisfaction of charter school teachers could lead to higher teacher turnover in the charter schools.

Compensation and Benefits

As defined in the introduction chapter, compensation was defined as the monetary reward that employees receive for doing their jobs, and benefits were those nonmonetary rewards for doing a job that can include paid time off, health care, defined contribution plans, pension plans, and family-friendly benefits (Miller, 2016). According to the National Education Association (2018), in 2016-17, the average U.S. public school teacher earned \$59,660.00 per year, with New York teachers earning the highest average of \$81,902.00 and Mississippi teachers earning the lowest average of \$42,925.00. Teacher salaries failed to keep pace with inflation from 2008-09 to 2017-18, and when adjusted for inflation, salaries have decreased by 4%. According to the U.S. Department of Education (2019) teacher compensation includes salary, extra pay, benefits, and pension and that it was the largest expenditure for school districts.

Compensation

Moulthrop et al. (2006) found that the prevailing attitudes concerning teacher compensation were grouped into three distinct categories; teachers are paid enough because they have short work days and summers off, teachers are paid enough because teachers knew

what they were getting into when they entered the profession, and teachers should be paid more but school districts cannot afford it. The attitude that teachers have short work days and summers off did not take into account that teachers average an additional 10 hours per week of work outside the classroom or that 42% of teachers work summer jobs to augment their teaching salaries. The authors derived that teachers working multiple jobs were more likely to burnout and leave the profession than teachers not working multiple jobs. The attitude that teachers were paid enough because they knew they were entering a profession that paid low salaries appeared incorrect based on turnover rates and interviews of former teachers. The attitude that teachers should be paid more but it was unaffordable was questionable based on the experiences of some states and school districts that changed the compensation scale for PK-12 educators.

The U.S. Department of Education (2019) noted that there are several school districts revamping their compensation systems to attract and retain teachers across the United States. They identified the Denver Public School System, Harrison School District Two, and the District of Columbia Public Schools as successful examples of efforts to improve teacher compensation. The Denver Public School System adapted the Professional Compensation for Teachers, or ProComp, as a pay-for-performance compensation plan. The Harrison School District Two implemented the Effectiveness and Results plan, which factors student achievement and teacher performance into a compensation scale. The District of Columbia Public School System implemented IMPACTplus, which was designed to reward highly effective teachers with annual bonuses based on value-added data gathered during teacher observations.

Benefits

The teacher compensation and benefits package was designed to reward career service, and the largest expenditures occurred towards the end of employment (Koedel, Podgursky, & Shi, 2013). Koedel et al. examined the most common teacher defined-benefit pension plan and found that the system was costly, did not improve quality of instruction, and actually caused some teachers to leave the profession earlier. In Missouri the researchers reported that the system was expensive, costing 29% of teachers' earnings to fund the retirement benefit. This type of benefit placed a significant long-term burden on the states and many were looking for ways to reduce the liability. The researchers noted that this type of retirement system creates an incentive structure that shapes the teacher workforce. The pension system was heavily backloaded and attempted to keep teachers working longer in the profession. The drawback to this type system was that as soon as teachers are retirement eligible, typically around age 57, teachers were incentivized to leave because they would forgo years of retirement compensation and if they continued to work, it would be for a fraction of their salary considering lost retirement earnings.

In an attempt to retain teachers some school districts have implemented or changed existing pension plans. Koedel and Xiang (2016) examined pension enhancements in a school district in St. Louis, Missouri to see if the changes had a positive impact on teacher retention. Although the changes did temporarily improve teacher retention of teachers who were already retirement eligible, it did not contribute to the retention of teachers who were not retirement eligible, despite the significant cost to implement by the school district. The researchers could not explain precisely why the pension enhancements failed to significantly improve retention but hypothesized that it could be attributable to new teachers not valuing their retirement

benefits and senior teachers already planning to stay in the profession. At the conclusion of their study the authors determined that the defined-benefits pension plans were not a cost-effective way to increase teacher retention.

Retention Bonuses

Another pay initiative that has been considered is the use of teacher retention bonuses. Springer, Swain, and Rodriguez (2016) examined the results of a Tennessee pilot test that provided a \$5,000 retention bonus for highly qualified teachers in key positions within low performing priority schools. The pilot program results were unique and potentially significant because the program was targeted to retain highly qualified teachers and was executed without other reforms. The implementation of the bonus program without changing other incentives enabled the researchers to conduct a cost-effectiveness analysis. As part of their study the researchers presented information in regards to several previous retention bonus efforts that experienced some levels of success, however the specific designs of the previous program differed from the program initiated in Tennessee. To be eligible for the bonus teachers had to receive top ratings on their evaluations, be assigned to a low performing priority school, and be willing to commit to teaching in the same school the following year. The pilot program had 321 teachers receive the bonus. The researchers determined that retention bonuses that targeted highly effective teachers in low performing schools was cost effective and did have a significant impact on retaining teachers and improving schools. Without using bonuses to retain all teachers in low performing schools, many lesser effective teachers than those receiving bonuses will voluntarily leave on their own. This turnover could allow the overall quality of the school faculty to increase over time.

Other schools have increased teacher compensation through the use of various bonuses tied to performance goals. The Denver Public School System changed its compensation scale in 2006 to include incentives for demonstration of recent coursework, completion of relevant master's degree, completion of National Board Certification, teaching in hard-to-serve schools, and student achievement on standardized tests (Moulthrop et al., p. 206). The Vaughn Next Century Learning Center in Los Angeles, California tied compensation bonuses to evaluations, student and teacher attendance, performance goals, and leadership roles in extracurricular activities. The Helena, Montana Public School District increased compensation to its teachers by rewarding professional service commitments, creating and following Career Development Plans, master's degrees, and acquiring certification the National Board of Professional Teaching Standards.

Leadership

Leadership is defined as the educational leaders responsible for affecting the climate, attitude, and reputation of the school and its teachers. Leaders were responsible for building the team, supporting teachers, having a vision for the school, setting expectations, creating a learning environment (University of San Diego), and professionally developing subordinates. Northouse (2016) described leadership as a process where an individual influenced a group to accomplish common goals. He explained that different types of leadership styles emerged in the 21st century to include authentic, spiritual, servant, and adaptive (2016). The explanation of these leadership styles is important because these are the types of leadership that can be effective in the school environment.

Gardner, Coglisser, Davis, and Dickens (2011) provided a historical analysis of the development of authentic leadership and traced parts back to ancient Greek philosophy and

Socrates, but the current definitions of authentic leadership were more fully developed in the 2000s. In their 2005 study Ilies, Morgeson, and Nahrgang defined authenticity as a “broad psychological construct reflecting one’s general tendencies to view oneself within one’s social environment and to conduct one’s life according to one’s deeply held values” (p. 376). The leader’s authenticity affects his or her own behavior and directly impacts the people that he or she leads. Ilies et al. developed a model of authentic leadership that focused on the importance of self-awareness, unbiased processing, authentic behavior, and authentic relational orientation. The researchers illustrated that the four components of the model should help improve the leader’s ability to lead others by increasing self-acceptance, environmental mastery, finding true purpose, and build positive relationships.

Spiritual leadership emphasizes values, a sense of calling, and membership to influence the group. This leadership theory emphasizes the importance of establishing a sense of meaning at work and helps to create a culture where employees feel connected with the organization and other members. These aspects combine to create meaning for the work that members of the organization accomplish. The employees find intrinsic value in the work that they do and feel a sense of calling and a connection to their community (Van Dierendonck, 2011).

Servant leadership shares aspects of authentic and spiritual leadership because of the emphasis placed on leader self-awareness, ethical behavior, importance of purpose, and the focus placed on followers (Van Dierendonck, 2011). According to Van Dierendonck servant leadership requires the leader to use caring principles to meet the needs of the follower with emphasis placed on ethical and caring behavior by the leader and the interaction exchange between the parties. Servant leadership’s focus on the followers attempts to create employees

that are more satisfied, more committed, and perform better due to the employees having their psychological needs met by the leader.

Adaptive leadership focused on the environment to identify problems, challenges, and changes and then help followers to adjust and thrive in the environment. While adaptive leadership shares similarities with authentic, spiritual, and servant leadership theories in that it focuses on the followers, it differs in that it also focuses on the environment where employees function and the ability to accept and thrive with change (Arthur-Mensah & Zimmerman, 2017). Elements of adaptive leadership are important for an organization's personnel when they experience traumatic change and need to adapt to the new environment. What separates adaptive leadership theory from the others is the emphasis placed on helping employees navigate change by creating an environment that allows employees to feel safe enough to express their concerns, introduce ideas, and share their fears so they can adjust and then thrive in the new environment (Arthur-Mensah et al., 2017).

Leadership Training

Young, Winn, and Reedy (2017) explained how recent legislation and research supported the idea that school leadership is instrumental in student and teacher achievement. When the Every Student Succeeds Act was signed into law in 2015, it reauthorized the Elementary and Secondary Education Act and replaced the No Child Left Behind Act. The law allowed states and districts to use federal funding for the purpose of leadership development for school leadership. The Every Student Succeeds Act allowed a 3% set aside of Title II-A funds for states to develop activities and provided funding for evidence-based leadership interventions. Additionally, the reauthorization of the Elementary and Secondary Education Act provided grants for leadership training. The authors provided multiple

references to numerous studies that identified the importance of school leadership and its direct and indirect impact on student and teacher performance. School leadership positively impacted students and teachers by providing organization, vision, employees, and the curricular and instructional agenda.

Samani and Thomas (2017) constructed that traditional leadership development programs may no longer be the most effective method. Traditional leadership development programs consisted primarily of internal training programs, executive leadership education, and hiring coaches. They argued that companies have more effective leadership development programs when they enable leaders to develop on the job while working to meet critical business objectives. Companies like Barclays Bank and Walt Disney identified leaders who were passionate, placed them on teams, and then invited them to develop innovative products and services that would have positive impacts on society. Hundreds of employees volunteered for the program and those selected were challenged, coached, and mentored as they learned how to develop proposals, research topics, network, and gain consensus. In the end the best ideas were funded and resourced for implementation. According to Samani and Thomas, Disney's Vice President of Human Resources stated that the program allowed leaders to develop new skills and to learn by doing. The companies' leadership predicted that their employees were less likely to leave because they had learned new skills, felt valued by the organization, and invested time and energy in developing products and services that they were passionate about.

Leadership Importance

Lockwood (2007) identified the manager-employee relationship as the most important factor affecting employee commitment. If the relationship was positive then employees were

more likely to stay, and if it was a negative relationship, then the employee was more likely to leave the organization. An effective relationship had to be built on trust and respect, and the author noted that only 56% of employees thought their manager knew what they contributed to the organization and how to best use the employee's talents to their full extent. To build employee engagement, managers needed to commit to diversity, take responsibility, be honest, find solutions, respect employees, communicate expectations, demonstrate passion, and defend employees.

To better understand the importance of leadership in the school environment, Moulthrop et al. (2006) conducted interviews with former teachers to gather information on why they chose to leave the profession. Many cited the lack of recognition from school leadership as a contributing factor to their decision to leave. Many teachers felt that their efforts were not appreciated by both the school administration and other teachers and felt that any feedback that they received was negative in nature. The respondents noted that they were happier in their new jobs and felt their new employer strived to recognize employees on a continual basis which was in stark contrast to their previous experiences.

Multiple studies identified that one of the key factors affecting employee retention was the relationship between employees and their supervisors (Allen, 2008; Lockwood, 2007; Moulthrop et al., 2006; Whipp & Geronime, 2015). Relationships that had quality exchanges of information and that were built on trust and fair treatment resulted in employee retention. Allen (2008) actualized that a supervisor's fair treatment of an employee was a greater predictor of retention than the distribution of outcomes. Allen's recommendations for improving retention included training supervisors on how to lead employees by providing training and coaching, designing reward and evaluation systems that support effective

leadership, and the removal of supervisors who fail to provide effective leadership. Other researchers supported Allen's findings including Whipp and Geronime (2015) who found that "a combination of school leadership, collegial relationships, and school culture are most important" (p. 3) in retaining teachers.

After analyzing the Schools and Staffing Survey and the Teacher Follow-Up Survey from the National Center for Education Statistics and conducting their own study, Boyd et al. (2011) determined that school administration and school leadership played critical roles in teacher retention. By providing professional development and handling mandates from school districts, the principal and other school leaders had the ability to help teachers be more efficient and effective. The researchers introduced that teachers' attitudes towards school leadership were the best predictor of teachers' decisions to stay in the profession. Encouraging teamwork, establishing a sense of community, establishing routines, resourcing, and advocating for teachers were identified as key components of good school leadership. Boyd et al. examined New York City teachers and their likelihood to leave teaching and found that the administrative factor, or how teachers viewed school leadership, was the only significant predictor of teacher retention decisions. Those teachers who view school leadership positively were more likely to stay while those who did not were more likely to leave. There was evidence that other factors could cause teachers to leave the school but were not valued enough to cause the teachers to leave the profession.

Leadership Examples

An example where leadership was instrumental in changing the culture of a school, attracting and retaining teachers, and improving student performance is The Vaughn Next Century Learning Center in Los Angeles, California (Moulthrop et al., 2006). Before 1993 the

school had struggled with student achievement, student truancy, low teacher morale, and community attachment. In 1993 the school became a charter school under the leadership of Yvonne Chan and implemented a pay-for-performance compensation system, a new performance appraisal system, and performance metrics all geared towards improving teacher performance and student achievement. The school had struggled with attracting and retaining qualified teachers until these changes were put into place. After all the changes were implemented, The Vaughn Next Century Learning Center became one of the most desired teaching locations in Los Angeles and students outperformed other California students on standardized testing.

Moulthrop et al. (2006) provided an example where leadership by both the school system and the teacher union representatives worked together to address significant problems affecting a school district was the implementation of ProComp in the Denver Public School System. The school district had suffered due to an inability to attract and retain qualified teachers to support a transient student population. Leaders from both the school system and the labor union formed a task force to address the problems, and the task force recommended significant changes that included a new compensation scale directly linked to teacher development and proficiency and student performance improvement.

The Helena Public School District is an example where leadership was instrumental in addressing significant financial challenges and teacher performance in a small school district in Helena, Montana (Moulthrop et al., 2006). Fifty percent of the school district's cadre of teachers were eligible for retirement within 5 years, and the school district struggled to attract new qualified teachers to fill vacancies due to the state having one of the lowest starting salaries in the US. The leadership of the school system decided to change the compensation

scale, implement a new performance appraisal system, instituted teacher career development plans, and established performance standards for the workforce. They also opted to pay a \$10,000 bonus for early retirement and this freed up funding to hire new teachers.

Performance Management System

Another factor that has been adjusted to try and improve teacher retention is the performance management system. For this study the performance management system was defined as both the performance appraisal process and employee development. An effective performance management system clarifies expectations and responsibilities, builds teamwork, develops employee capabilities, aligns employee behavior with organizational goals, improves communication, and provides a basis for personnel decisions (Pulakos, 2004, p. 1). There are multiple studies and examples where school districts have changed the teachers' performance management system to improve teacher performance and compensation (Mintrop, Ordenes, Coghlan, Pryor & Madero, 2018; Moulthrop et al., 2006; Robertson-Kraft & Zhang, 2016). The results of the changes to the performance management system have been mixed.

Robertson-Kraft and Zhang (2016) derived that teacher evaluation systems have become an important topic in recent years because of teacher retention challenges and U.S. Department of Education guidelines covering the qualifications for education grants. To qualify for grants 30 states changed their teacher evaluation systems to increase the emphasis on student learning. Robertson-Kraft and Zhang found that there were many factors that contributed to teacher retention patterns, and while the evaluation system mattered, successful implementation depended largely on the teachers' trust of the school administration and their ability to fairly administer the system. By examining data gathered after the implementation of a new teacher evaluation system, the authors deduced that the new evaluation system did

not have a significant effect on teacher retention (p. 16); however, two factors that had the greatest impact on teachers' retention decisions were the "teachers' perceptions of whether school administration was supportive or encouraging and whether their school recognized staff members for highly effective job performance" (p. 21).

Successful Performance Management System Changes

Moulthrop et al. (2006) provided three examples where the performance evaluation was effectively administered and was able to directly tie compensation based on the achievement of established performance measures. The first example was the Denver Public School System and its 2006 institution of the Professional Compensation for Teachers, or ProComp, where teacher salaries were no longer only tied to the teachers' years of service and postgraduate academic credits. The ProComp system incentivized teachers to work in different schools, improve student performance, fill hard-to-staff positions, and demonstrate more knowledge and skills. The pay for performance system and the resulting pay raises were tied to annual evaluations conducted by both school administrators and peers.

Another school that used the performance evaluation process to support culture change, compensation, and performance was the Vaughn Next Century Learning Center in Los Angeles, California (Moulthrop et al., 2006). Starting in 1998 the school started using an evaluation process where school administration, fellow teachers, and a self-assessment provided input to measure performance and attainment of specified goals in relation to student achievement, student and teacher attendance, and leadership roles supporting extracurricular activities.

The Helena, Montana Public School District also successfully instituted a performance evaluation system that was directly tied to teacher compensation (Moulthrop et al., 2006).

While writing the actual evaluation was still the sole responsibility of the school principal, many of the performance goals and measures were taken from the individual teacher's Career Development Plan. As much as \$1,350 could be earned by the teacher based on positive results from the annual evaluation.

Performance Management System Challenges

In contrast to the previous studies and examples, Mintrop, Ordenes, Coghlan, Pryor, and Madero (2018) introduced that pay-for-performance evaluation systems could have negative impacts on teachers and the school's culture. Based on the findings of their qualitative, longitudinal study of teachers in three different California charter schools, the researchers found that despite initial acceptance and enthusiasm for a new performance appraisal system, it did not support the values of the schools, and declined in popularity after 3 years. Funded by the Teacher Incentive Fund, school administrators were optimistic at the onset because they viewed the performance appraisal system as a way to garner resources for the school and teachers and as a way to improve teacher performance. In the early stages of the implementation teachers did receive more money and most considered it recognition and validation of the work that they were already doing. During execution the school administration and teachers discovered that the process complex and questioned the ratings and scoring criteria that measured effectiveness. Because of these complexities and lack of understanding of the process, school administrators and teachers lost trust in the process and even questioned the bonus distribution. By the end of the 3-year period, the three different schools retained elements of the performance system but eliminated the pay-for-performance aspects.

Peer Support

For the purpose of this study peer support is defined as the process in which teachers share common experiences and challenges come together to share views, opinions, knowledge, empathy, assistance, and encouragement (Penny, 2018). As previously identified under the fit factor, culture involved the learned beliefs, values, rules, norms, symbols, and traditions of an organization (Northouse, p. 428), and peers can be instrumental in indoctrinating new members of a group. While previous studies on peer support focused on face-to-face engagements, recent studies also examine the use of social media for peer support.

Importance of Peer Support

Kram and Isabella (1985) conducted a study to see how peer relationships enabled employees to develop personally and professionally at different career stages. They found that peer support in the workplace functioned very similarly to mentoring relationships in that they supported both career-enhancing and psychosocial needs of employees. They concluded that there was a continuum of relationships that were impacted by age and experience in the work environment. Less experienced employees used peer support relationships to gain career-enhancing advice, information sharing, and organizational advancement from the more experienced employees. This allowed newer employees to learn how the organization functioned and allowed them to complete the functions of their job more easily.

In regards to the psychosocial functions, Kram and Isabella (1985) established that peer support was instrumental in helping new employees discover their professional identity. While this level of peer support relationship took longer to develop because it required more intimacy, self-disclosure, and trust, newer employees benefitted most because they gained

competence and confidence in their professional setting. Both parties of the peer relationship benefitted because they were able to provide confirmation and gain common understanding by sharing perceptions, values, and beliefs, and they each received emotional support by listening and counselling each other. Through the relationship the parties learned about their own leadership styles, how they fit in the organization, and even how to better manage work and home commitments. The researchers found that it was the mutuality of the relationship that made it unique in comparison to mentorship relationships.

Kram and Isabella (1985) grouped peer relationships into three continuum classifications that started with informational, evolved into collegial, and sometimes grew into special, with each classification having its own unique attributes. The informational peer relationship was the initial bond and was characterized predominately by information sharing and the newer employee learning about the organization and specific job functions. The collegial peer relationship centered on strategizing, job-related feedback, and friendship development. The last category, special peer, evolved into attributes such as confirmation, emotional support, personal feedback, and commitment.

Peer Support and Social Media

Kelly and Antonio (2016) identified the kind of peer support that teachers are receiving from the use of social network sites such as Facebook. They learned that teachers were using open Facebook groups to share information on a large scale and that these groups did provide a level of social support. In the study the researchers grouped the types of communication and categorized them as providing feedback, modelling practice, supporting reflection, relationship building, socialization, and advocating practice. They actualized that the teachers' use of social network sites did provide collegial support that had previously only be

available in face-to-face settings. Kelly and Antonio cautioned that while there was evidence of relationship building, socialization, and advocating practice occurring on the social network sites, there was little effort to provide feedback, model practice, or support of reflection. Kelly and Antonio explained that total peer support was probably not supported on a social network site because the teachers did not share trust, stability, and collegiality with the entire open group.

Mentorship

Mentoring has been defined as a formal or informal program where relationships were formed between a mentor and a mentee (Labin, 2017). During the course of the relationship the mentor provides the mentee with challenges, encouragement, and direction and promotes individual growth. DeAngelis, Wall, and Che (2013) asserted that because of high teacher attrition rates, there has been a significant increase in the number of support and mentor programs developed and implemented to assist teachers beginning their career. The percentage of new public-school teachers participating in mentoring programs increased from 51% in 1990 to 83% in 2000, with 27 states requiring participation.

Mentorship and Impact on Teacher Retention

Additionally, DeAngelis et al. (2013) discovered that mentoring programs had lasting impacts on teacher retention. Teachers with mentors were less likely to change schools or leave the profession than teachers without mentors after their first year of teaching. DeAngelis et al. found that the early career support continued to impact the teacher's decision to remain in the school and continue in the education profession in the following years. They concluded that the quality and thoroughness of the early career support programs were critical and that mentors from the same subject area had a greater impact on new teacher retention

decisions. Another study that collaborated the findings of DeAngelis, Wall, and Che was conducted by Rodgers and Skelton (2014), and there the researchers predicated that new teachers needed additional professional development from experienced faculty members to be effective in the classroom.

The importance of establishing and executing effective mentoring and support programs geared towards new teacher integration was stressed in multiple studies. DeAngelis, Wall, and Che (2013) provided strong rationale for implementing a support program for teachers entering the education profession. An effective program would develop teachers' skills and likely lead to better teacher retention. These authors argued that more needed to be done during the preservice preparation as well. The authors found that the teachers' perceived preparation quality, mentoring, and induction support had significant impacts on teachers' decisions to stay in or exit the education field. Rodgers and Skelton (2014) also emphasized the importance of establishing a teacher mentoring and support program because they determined that new teachers were not prepared to handle the rigors of the classroom. New teacher challenges that lead to attrition included "burdening workloads, undesirable classes, limited resources, and student behavior problems" (p. 3). They identified other challenges for new teachers that included "isolation, poor pay, high expectations from parents, inadequate support, unfamiliar practices and methods, and disparity between instructional expectations and classroom teaching (p. 3)" and support and mentor programs could help new teachers cope with these challenges. Heineke et al. (2014) determined that strongest predictor of teacher retention was when teachers were placed with strong leaders and supportive coworkers.

Example of Successful Mentorship Program

An example of expanding on the concept of mentorship, education leaders from Kentucky, Kansas, Alabama, Delaware, and Ohio joined together to develop a training program geared towards growing teacher leaders that strengthens school leadership, improves teacher retention, and aids in school reform. The formalized program was developed to provide teachers with leadership training in coaching and mentoring of adult learners (Hohenbrink, Stauffer, Zigler, & Uhlenhake, 2011). The 9-semester-hour program included three courses on leadership, collaboration, and coaching and mentoring, and the courses were designed to help teacher leaders make a positive impact in their schools and with training and supporting new teachers. While these teacher leaders will not have formalized positions of power in their schools, it was expected that they will acquire expert power from the training and would be able to augment the school leadership.

CHAPTER 3

RESEARCH METHOD

This study was an examination of multiple factors including work environment, fit, compensation and benefits, leadership, performance management system, peer support, and mentoring, that contributed to the retention of PK-12 teachers with different levels of experience. The purpose of this quantitative study was to determine the distinct factors that contribute to PK-12 teacher retention. By identifying factors that contribute to teachers' decision to remain in the field, school leadership can attempt to make improvements to those factors to prevent voluntary attrition. The statistical package IBM-SPSS was used to analyze results of the relationship between teacher perceptions and retention factors. In this study I have attempted to determine which factors are valued by PK-12 teachers in a central Kansas school system.

A quantitative framework was used to compare significant relationships of teacher perceptions of retention factors. This chapter contains: The Research Questions and Null Hypotheses, Instrumentation, Population, Data Collection, Data Analysis, and Summary. A quantitative framework was used to examine how PK-12 teachers with different levels of experience perceive the value of different factors that contribute to retention. Teacher perceptions were collected using a survey method, and the responses were analyzed using the Statistical Package for the Social Sciences to determine if there were significant differences in mean scores.

Research Questions and Null Hypotheses

The following research questions and corresponding null hypotheses were addressed during the study.

Research Question 1: Is there a significant difference in the mean scores of PK-12 teachers for the six dimensions of the Teacher Retention Survey among the years of experience categories (0-3 years, 4-8 years, or more than 9 years)?

Ho₁₁: There are no significant differences in the mean scores of PK-12 teachers for Dimension 1 (Work Environment) among the years of experience categories (0-3 years, 4-8 years, or more than 9 years).

Ho₁₂: There are no significant differences in the mean scores of PK-12 teachers for Dimension 2 (Fit) among the years of experience categories (0-3 years, 4-8 years, or more than 9 years).

Ho₁₃: There are no significant differences in the mean scores of PK-12 teachers for Dimension 3 (Compensation) among the years of experience categories (0-3 years, 4-8 years, or more than 9 years).

Ho₁₄: There are no significant differences in the mean scores of PK-12 teachers for Dimension 4 (Leadership) among the years of experience categories (0-3 years, 4-8 years, or more than 9 years).

Ho₁₅: There are no significant differences in the mean scores of PK-12 teachers for Dimension 5 (Evaluation) among the years of experience categories (0-3 years, 4-8 years, or more than 9 years).

Ho₁₆: There are no significant differences in the mean scores of PK-12 teachers for Dimension 6 (Mentorship) among the years of experience categories (0-3 years, 4-8 years, or more than 9 years).

Research Question 2: Is there a significant difference in the mean scores of PK-12 teachers for the six dimensions of the Teacher Retention Survey between male and female teachers?

Ho2₁: There are no significant differences in the mean scores of PK-12 teachers for Dimension 1 (Work Environment) between male and female teachers.

Ho2₂: There are no significant differences in the mean scores of PK-12 teachers for Dimension 2 (Fit) between male and female teachers.

Ho2₃: There are no significant differences in the mean scores of PK-12 teachers for Dimension 3 (Compensation) between male and female teachers.

Ho2₄: There are no significant differences in the mean scores of PK-12 teachers for Dimension 4 (Leadership) between male and female teachers.

Ho2₅: There are no significant differences in the mean scores of PK-12 teachers for Dimension 5 (Evaluation) between male and female teachers.

Ho2₆: There are no significant differences in the mean scores of PK-12 teachers for Dimension 6 (Mentorship) between male and female teachers.

Research Question 3: Is there a significant difference in the mean scores of PK-12 teachers for the six dimensions of the Teacher Retention Survey among the level of education categories (bachelor's degree or master's degree)?

Ho3₁: There are no significant differences in the mean scores of PK-12 teachers for Dimension 1 (Work Environment) among the level of education categories (bachelor's degree or master's degree)?

Ho3₂: There are no significant differences in the mean scores of PK-12 teachers for Dimension 2 (Fit) among the level of education categories (bachelor's degree or master's degree)?

Ho3₃: There are no significant differences in the mean scores of PK-12 teachers for Dimension 3 (Compensation) among the level of education categories (bachelor's degree or master's degree)?

Ho3₄: There are no significant differences in the mean scores of PK-12 teachers for Dimension 4 (Leadership) among the level of education categories (bachelor's degree or master's degree)?

Ho3₅: There are no significant differences in the mean scores of PK-12 teachers for Dimension 5 (Evaluation) among the level of education categories (bachelor's degree or master's degree)?

Ho3₆: There are no significant differences in the mean scores of PK-12 teachers for Dimension 6 (Mentorship) among the level of education categories (bachelor's degree or master's degree)?

Research Question 4: Is there a significant difference in the mean scores of PK-12 teachers for the six dimensions of the Teacher Retention Survey among the number of schools categories (1 school, 2 schools, 3 schools, or 4 or more schools)?

Ho4₁: There are no significant differences in the mean scores of PK-12 teachers for Dimension 1 (Work Environment) among the number of schools categories (1 school, 2 schools, 3 schools, or 4 or more schools).

Ho4₂: There are no significant differences in the mean scores of PK-12 teachers for Dimension 2 (Fit) among the number of schools categories (1 school, 2 schools, 3 schools, or 4 or more schools).

Ho4₃: There are no significant differences in the mean scores of PK-12 teachers for Dimension 3 (Compensation) among the number of schools categories (1 school, 2 schools, 3 schools, or 4 or more schools).

Ho4₄: There are no significant differences in the mean scores of PK-12 teachers for Dimension 4 (Leadership) among the number of schools categories (1 school, 2 schools, 3 schools, or 4 or more schools).

Ho4₅: There are no significant differences in the mean scores of PK-12 teachers for Dimension 5 (Evaluation) among the number of schools categories (1 school, 2 schools, 3 schools, or 4 or more schools).

Ho4₆: There are no significant differences in the mean scores of PK-12 teachers for Dimension 6 (Mentorship) among the number of schools categories (1 school, 2 schools, 3 schools, or 4 or more schools).

Research Question 5: Is there a significant difference in the mean scores of PK-12 teachers for the six dimensions of the Teacher Retention Survey among the number of school districts categories (1 district, 2 districts, 3 districts, or 4 or more districts)?

Ho5₁: There are no significant differences in the mean scores of PK-12 teachers for Dimension 1 (Work Environment) among the number of school districts categories (1 district, 2 districts, 3 districts, or 4 or more districts).

Ho5₂: There are no significant differences in the mean scores of PK-12 teachers for Dimension 2 (Fit) among the number of school districts categories (1 district, 2 districts, 3 districts, or 4 or more districts).

Ho5₃: There are no significant differences in the mean scores of PK-12 teachers for Dimension 3 (Compensation) among the number of school districts categories (1 district, 2 districts, 3 districts, or 4 or more districts).

Ho5₄: There are no significant differences in the mean scores of PK-12 teachers for Dimension 4 (Leadership) among the number of school districts categories (1 district, 2 districts, 3 districts, or 4 or more districts).

Ho5₅: There are no significant differences in the mean scores of PK-12 teachers for Dimension 5 (Evaluation) among the number of school districts categories (1 district, 2 districts, 3 districts, or 4 or more districts).

Ho5₆: There are no significant differences in the mean scores of PK-12 teachers for Dimension 6 (Mentorship) among the number of school districts categories (1 district, 2 districts, 3 districts, or 4 or more districts).

Research Question 6: Is there a significant difference in the mean scores of PK-12 teachers for the six dimensions of the Teacher Retention Survey among the areas of certification categories (elementary education, secondary education, or multiple certifications)?

Ho6₁: There are no significant differences in the mean scores of PK-12 teachers for Dimension 1 (Work Environment) among the areas of certification categories (elementary education, secondary education, or multiple certifications).

Ho6₂: There are no significant differences in the mean scores of PK-12 teachers for Dimension 2 (Fit) among the areas of certification categories (elementary education, secondary education, or multiple certifications)

Ho6₃: There are no significant differences in the mean scores of PK-12 teachers for Dimension 3 (Compensation) among the areas of certification categories (elementary education, secondary education, or multiple certifications).

Ho6₄: There are no significant differences in the mean scores of PK-12 teachers for Dimension 4 (Leadership) among the areas of certification categories (elementary education, secondary education, or multiple certifications).

Ho6₅: There are no significant differences in the mean scores of PK-12 teachers for Dimension 5 (Evaluation) among the areas of certification categories (elementary education, secondary education, or multiple certifications).

Ho6₆: There are no significant differences in the mean scores of PK-12 teachers for Dimension 6 (Mentorship) among the areas of certification categories (elementary education, secondary education, or multiple certifications).

Research Question 7: Is there a significant difference in the mean scores of PK-12 teachers for the six dimensions of the Teacher Retention Survey between teachers who have a military affiliation (veterans themselves or have spouses that served or are currently serving in the armed forces)?

Ho7₁: There are no significant differences in the mean scores of PK-12 teachers for Dimension 1 (Work Environment) between teachers who have a military affiliation and those that do not.

Ho7₂: There are no significant differences in the mean scores of PK-12 teachers for Dimension 2 (Fit) between teachers who have a military affiliation and those that do not.

Ho7₃: There are no significant differences in the mean scores of PK-12 teachers for Dimension 3 (Compensation) between teachers who have a military affiliation and those that do not.

Ho7₄: There are no significant differences in the mean scores of PK-12 teachers for Dimension 4 (Leadership) between teachers who have a military affiliation and those that do not.

Ho7₅: There are no significant differences in the mean scores of PK-12 teachers for Dimension 5 (Evaluation) between teachers who have a military affiliation and those that do not.

Ho7₆: There are no significant differences in the mean scores of PK-12 teachers for Dimension 6 (Mentorship) between teachers who have a military affiliation and those that do not.

Research Question 8: Is there a significant difference in the mean scores of PK-12 teachers for the six dimensions of the Teacher Retention Survey among the career plans categories (continue to work as a teacher or plan to leave the teaching profession within 3 years)?

Ho8₁: There are no significant differences in the mean scores of PK-12 teachers for Dimension 1 (Work Environment) among the career plans categories (continue to work as a teacher or plan to leave the teaching profession within 3 years).

Ho8₂: There are no significant differences in the mean scores of PK-12 teachers for Dimension 2 (Fit) among the career plans categories (continue to work as a teacher or plan to leave the teaching profession within 3 years).

Ho8₃: There are no significant differences in the mean scores of PK-12 teachers for Dimension 3 (Compensation) among the career plans categories (continue to work as a teacher or plan to leave the teaching profession within 3 years).

Ho8₄: There are no significant differences in the mean scores of PK-12 teachers for Dimension 4 (Leadership) among the career plans categories (continue to work as a teacher or plan to leave the teaching profession within 3 years).

Ho8₅: There are no significant differences in the mean scores of PK-12 teachers for Dimension 5 (Evaluation) among the career plans categories (continue to work as a teacher or plan to leave the teaching profession within 3 years).

Ho8₆: There are no significant differences in the mean scores of PK-12 teachers for Dimension 6 (Mentorship) among the career plans categories (continue to work as a teacher or plan to leave the teaching profession within 3 years).

Instrumentation

The data on teachers' perceptions of retention factors for this study were collected using a Likert-type survey conducted in October, 2019. The survey (Appendix A) was administered to all PK-12 teachers at a unified school district in central Kansas. The survey included sections that collected demographics, Likert-type scale responses, short answers responses, and open-ended question responses. The demographic questions collected information on gender, education, experience, and future intentions. The questions using Likert-type scale responses addressed Work Environment, Fit, Compensation and Benefits,

Leadership, Performance Management System, Peer Support, and Mentoring. Teachers answered questions using the terms: strongly disagree, disagree, slightly disagree, slightly agree, agree, and strongly agree. The short answer questions focused on support programs and job satisfaction. The open-ended questions collected information about job satisfaction and teacher retention. Survey questions were answered anonymously and cannot be traced back to the survey taker.

Population

For this study I surveyed the population of 704 current PK-12 teachers in a public unified school district located in central Kansas using a nonrandom sample method. The unified school district is comprised of 14 elementary schools (grades PK-5), two middle schools (grades 6-8), and one high school (grades 9-12). The unified school district is located adjacent to a large U.S. Army installation and supports a culturally diverse educational environment with a majority of the district's students being military-connected in some way.

Data Collection

I gained approval to conduct this study by my dissertation committee in the Educational Leadership and Policy Analysis department at East Tennessee State University and received approval to administer my survey instrument by the East Tennessee State University Institutional Review Board. These approvals were required to ensure that all ethical protocols were met. I delivered the survey instrument by a hard-copy means to all 704 current PK-12 teachers in the unified school district. The survey was administered at the beginning of the 2019-2020 academic school year and resulted in 210 usable surveys collected with a 29.8% return rate.

Data Analysis

By collecting survey responses using a Likert-type scale, I was able to capture perceptions and attitudes of respondents as they related to six retention factors. The survey contained six values (strongly agree, agree, somewhat agree, somewhat disagree, disagree, and strongly disagree) and produced approximate interval data. The independent variables in my study included subgroups determined by the number of respondents and demographic factors. The dependent variables were the responses to the questions addressing levels of satisfaction concerning environment, fit, compensation, leadership, evaluations, and mentoring. Although the Likert-type scale responses to the survey provided data that were ordinal, discrete, and somewhat limited in range, I was able to use an analysis of variance to determine if there were significant differences in the mean scores of any dimension among teachers in the 3 years of experience categories (0-3, 4-8, more than 9). The population of the study was 704 current teachers at a public unified school district in central Kansas, and the purposeful sample was all teachers that responded to the survey administered at the beginning of the 2019-2020 academic school year. Data were collected and compiled to identify significant difference in the mean scores of the six different dimension scores among PK-12 teachers at the .05 level of significance.

By dividing the survey respondents into categories based on gender, education, certification, experience, career plans, and military affiliation, I was able to collect perceptions and compare Means of multiple independent groups. All statistical analysis for this study was conducted using IBM-SPSS, Version 26. This statistics software has been routinely used to perform quantitative analysis by social science researchers. Independent-samples t tests and one-way ANOVA tests were appropriate for this study because I was comparing two or more

groups to test the null hypothesis of the 8 research questions (McMillan & Schumacher, 2010). In cases where the one-way ANOVA test was used to test the null hypothesis of the different dimensions, I used Tukey post hoc comparisons to determine which of the means were different.

CHAPTER 4

ANALYSIS OF DATA

The purpose of this quantitative study was to determine the distinct factors that contribute to PK-12 teacher retention. By identifying factors that contribute to teachers' decision to remain in the field, school leadership can attempt to make improvements to those factors to prevent voluntary attrition. This study was designed to determine which factors are valued by PK-12 teachers in the participating school system. I collected survey data to gain insight regarding different factors that contribute to PK-12 teacher retention and identified areas where school leadership can attempt to make improvements in reducing voluntary attrition.

I surveyed the entire population of 704 current PK-12 teachers in a public unified school district located in central Kansas using a nonrandom sample method in October, 2019. The data on teachers' perceptions of retention factors for this study were collected using a Likert-type survey. The survey included sections on demographics, Likert-type scale responses, short answers responses, and open-ended question responses. The demographic questions collected information on gender, education, experience, and future intentions. The questions using Likert-type scale responses addressed Work Environment, Fit, Compensation and Benefits, Leadership, Performance Management System, Peer Support, and Mentoring.

The survey administration resulted in 210 usable surveys, and the respondents provided demographic information identifying gender, education level, certification source, work experience, career plans, and military affiliation. The characteristics of the survey respondents are depicted in Table 1.

Table 1

Gender, Education, Experience, Certification, Number of Schools, Number of Districts, and Military Affiliation

Variable	N	%
<u>Gender</u>		
Male	28	13.59
Female	178	86.41
Total	206	
<u>Education</u>		
Bachelor Degree	88	41.91
Graduate Degree	122	58.09
Total	210	
<u>Experience</u>		
0-3 Years	40	19.32
3-8 Years	54	26.09
9 or More Years	113	54.59
Total	207	
<u>Certification</u>		
Elementary	113	53.81
Secondary	41	19.52
Multiple	56	26.67
Total	210	
<u># Schools</u>		
1 School	69	32.86
2 Schools	51	24.29
3 Schools	33	15.71
4 or More Schools	57	27.14
Total	210	
<u># Districts</u>		
1 District	116	55.24
2 Districts	39	18.57
3 Districts	25	11.92
4 or More Districts	30	14.27
Total	210	

Table 1 (continued).

<u>Military Affiliation</u>			
Yes		45	21.43
No		165	78.57
	Total	210	

Results

The research questions were used to understand the teachers' perceptions of the retention factors that included environment, fit, compensation, leadership, evaluation, and mentorship. Teachers' perceptions across multiple demographic groupings were examined.

Analysis of Research Question 1

Research Question 1: Is there a significant difference in the mean scores of PK-12 teachers for the six dimensions of the Teacher Retention Survey among the years of experience categories (0-3 years, 4-8 years, or 9 or more years)?

Ho₁: There are no significant differences in the mean scores of PK-12 teachers for Dimension 1 (Work Environment) among the years of experience categories (0-3 years, 4-8 years, or 9 or more years).

A one-way analysis of variance (ANOVA) was conducted to evaluate the relationship between teachers' years of experience and perceptions of the retention dimension (work environment). The factor variable was the teachers' years of experience in the classroom and included three levels: 0-3 years, 4-8 years, and 9 or more years. The dependent variable was the environment scores derived from the teacher retention survey. The ANOVA was not significant, $F(2, 207) = 2.90, p = .057$. Therefore, the null hypothesis was retained based on the environment dimension. The strength of the relationship between the teachers' years of experience and the environment factor as assessed by η^2 was small (.03). The results indicate

that the environment factor score was not significantly related to teachers' years of experience.

The means and standard deviations for the three teachers' years of experience groups are reported in Table 2 and boxplots are displayed in Figure 1.

Table 2

Means and Standard Deviations of Teachers' Experience by Environment Score

Experience	N	M	SD
0-3 Years	40	25.05	4.03
4-8 Years	56	23.68	4.15
9 or More Years	114	25.25	4.04

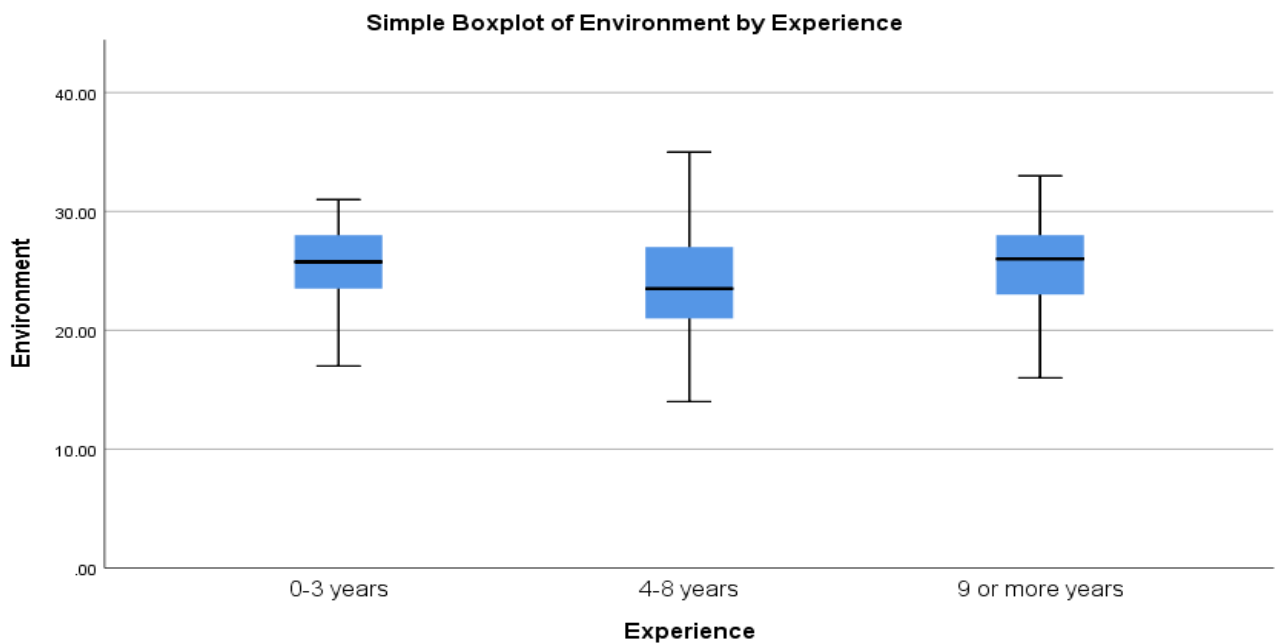


Figure 1. Boxplot of environment scores by teachers' years of experience.

H_{012} : There are no significant differences in the mean scores of PK-12 teachers for Dimension 2 (Fit) among the years of experience categories (0-3 years, 4-8 years, or 9 or more years).

A one-way analysis of variance (ANOVA) was conducted to evaluate the relationship between teachers' years of experience and perceptions of the retention dimension (fit). The factor variable was the teachers' years of experience in the classroom and included three levels: 0-3 years, 4-8 years, and 9 or more years. The dependent variable was the fit score derived from the teacher retention survey. The ANOVA was significant, $F(2, 207) = 3.34, p = .037$. Therefore, the null hypothesis was rejected. The strength of the relationship between teachers' years of experience and the fit dimension score as assessed by η^2 was small (.031).

Because the overall F test was significant, post hoc multiple comparisons were conducted to evaluate pairwise differences among the means of the three groups. A Tukey procedure was selected for the multiple comparisons because equal variances were assumed but the test did not identify differences between the groups. A follow-up post hoc multiple comparisons using an LSD procedure did identify differences between the groups. There was a significant difference in the means between the groups of teachers that had 0-3 years of experience and 9 or more years ($p = .042$) and the groups of teachers that had 4-8 years of experience and 9 or more years ($p = .036$). However, there was not a significant difference between the groups of teachers that had 0-3 years of experience and 4-8 years of experience. It appears that the teachers with 9 or more years of experience perceived that they fit better in their profession, community, and school than teachers with less experience as measured by the teacher retention survey. The means and standard deviations for the teacher experience groups are reported in Table 3. Table 4 identifies the 95% confidence intervals of pairwise differences for teacher experience groups and boxplots are displayed in Figure 2.

Table 3

Means and Standard Deviations of Teachers' Experience by Fit Score

Experience	N	M	SD
0-3 Years	40	26.98	4.06
4-8 Years	56	27.11	4.61
9 or More Years	114	28.59	4.23

Table 4

95% Confidence Intervals of Pairwise Differences of Teacher Experience

Teacher Years of Experience	0-3 Years	4-8 Years
0-3 Years		
4-8 Years	[-2.27, 1.97]	
9 or More Years	[-3.49, .25]*	[.10, 2.87]*

*Significant at .05.

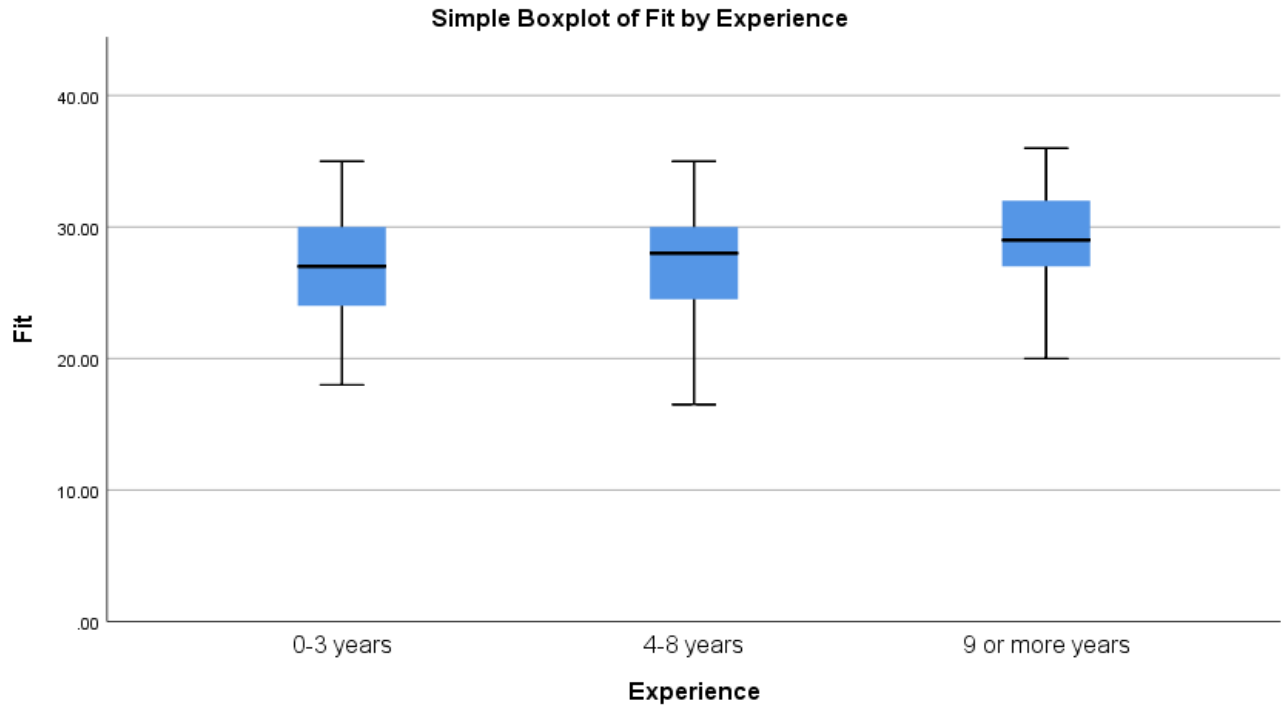


Figure 2. Boxplot of fit scores by teachers' years of experience.

Ho₁₃: There are no significant differences in the mean scores of PK-12 teachers for Dimension 3 (Compensation) among the years of experience categories (0-3 years, 4-8 years, or 9 or more years).

A one-way analysis of variance (ANOVA) was conducted to evaluate the relationship between teachers' years of experience and perceptions of the retention dimension (compensation). The factor variable was the teachers' years of experience in the classroom and included three levels: 0-3 years, 4-8 years, and 9 or more years. The dependent variable was the compensation scores derived from the teacher retention survey. The ANOVA was not significant, $F(2, 207) = 1.20, p = .302$. Therefore, the null hypothesis was retained based on the compensation dimension. The strength of the relationship between the teachers' years of experience and the compensation factor as assessed by η^2 was small (.01). The results indicate that the compensation factor score was not significantly related to teachers' years of

experience. The means and standard deviations for the three teachers' years of experience groups are reported in Table 5 and boxplots are displayed in Figure 3.

Table 5

Means and Standard Deviations of Teachers' Experience by Compensation Score

Experience	N	M	SD
0-3 Years	40	14.68	2.18
4-8 Years	56	14.87	2.90
9 or More Years	114	15.41	3.24

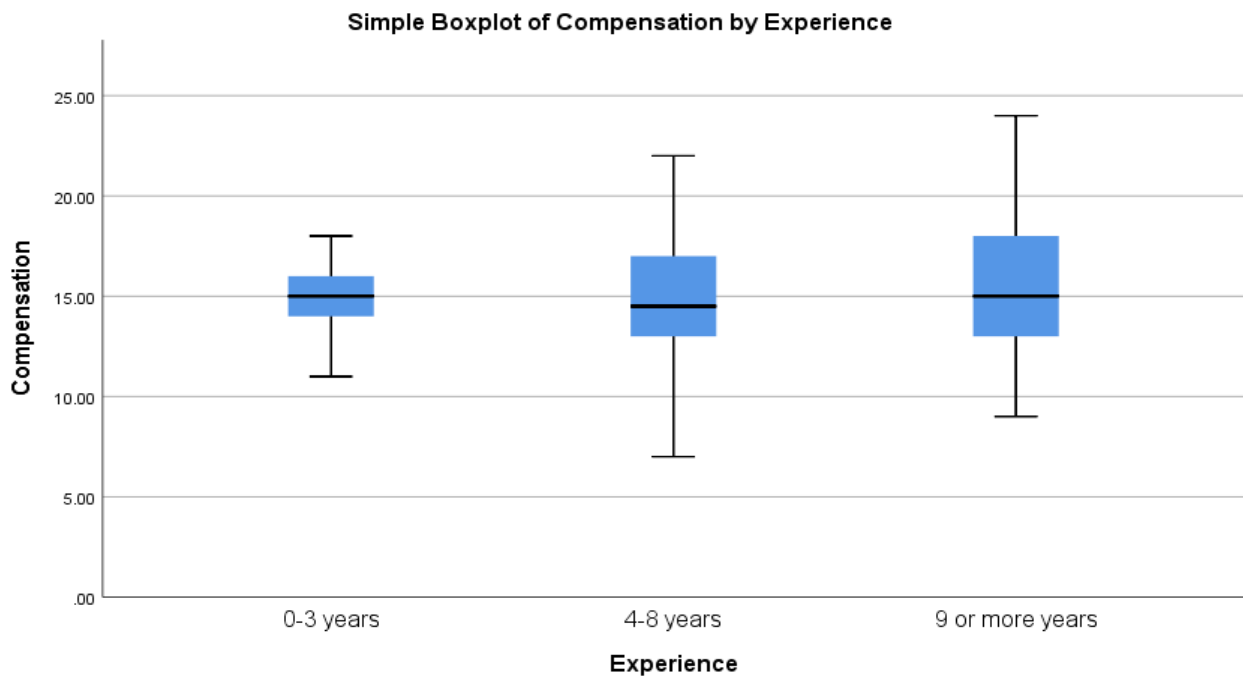


Figure 3. Boxplot of compensation scores by teachers' years of experience.

H₀₄: There are no significant differences in the mean scores of PK-12 teachers for Dimension 4 (Leadership) among the years of experience categories (0-3 years, 4-8 years, or 9 or more years).

A one-way analysis of variance (ANOVA) was conducted to evaluate the relationship between teachers' years of experience and perceptions of the retention dimension (leadership). The factor variable was the teachers' years of experience in the classroom and included three levels: 0-3 years, 4-8 years, and 9 or more years. The dependent variable was the leadership scores derived from the teacher retention survey. The ANOVA was not significant, $F(2, 207) = <.01, p = 1.000$. Therefore, the null hypothesis was retained based on the leadership dimension. The strength of the relationship between the teachers' years of experience and the leadership factor as assessed by η^2 was small ($<.01$). The results indicate that the leadership factor score was not significantly related to teachers' years of experience. The means and standard deviations for the three teachers' years of experience groups are reported in Table 6 and boxplots are displayed in Figure 4.

Table 6

Means and Standard Deviations of Teachers' Experience by Leadership Score

Experience	N	M	SD
0-3 Years	40	11.85	4.90
4-8 Years	56	11.83	4.41
9 or More Years	114	11.83	4.43

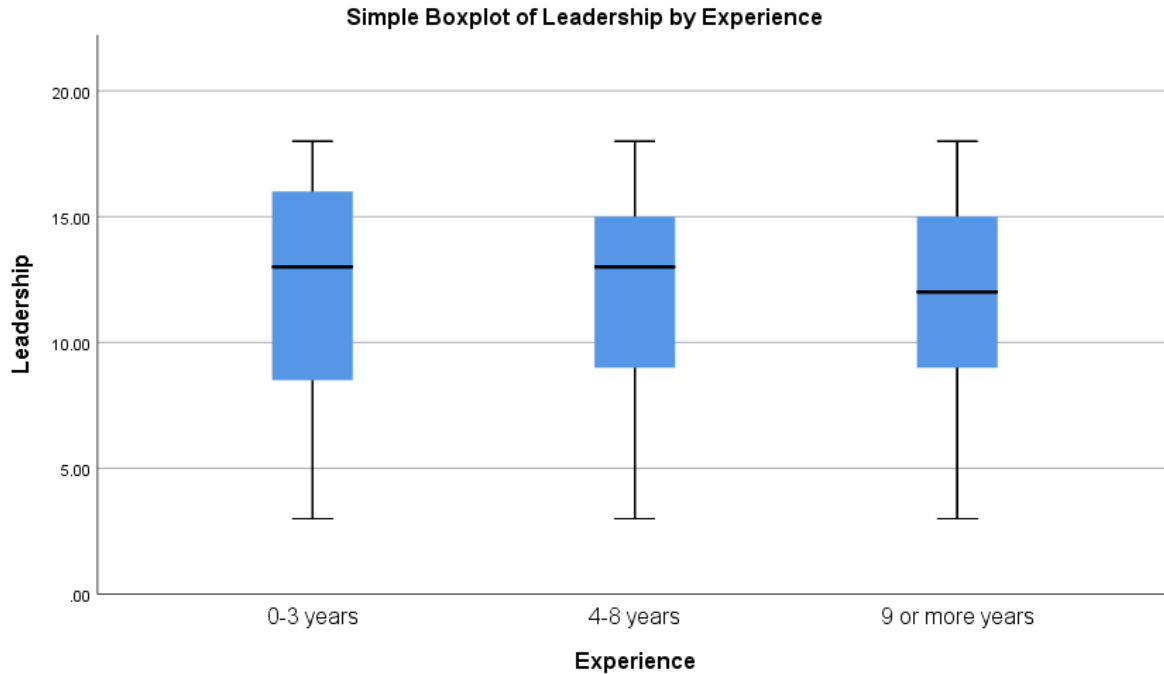


Figure 4. Boxplot of leadership scores by teachers' years of experience.

Ho₁₅: There are no significant differences in the mean scores of PK-12 teachers for Dimension 5 (Evaluation) among the years of experience categories (0-3 years, 4-8 years, or 9 or more years).

A one-way analysis of variance (ANOVA) was conducted to evaluate the relationship between teachers' years of experience and perceptions of the retention dimension (evaluation). The factor variable was the teachers' years of experience in the classroom and included three levels: 0-3 years, 4-8 years, and 9 or more years. The dependent variable was the evaluation score derived from the teacher retention survey. The ANOVA was significant, $F(2, 207) = 4.36, p = .014$. Therefore, the null hypothesis was rejected. The strength of the relationship between teachers' years of experience and the evaluation dimension score as assessed by η^2 was small (.04).

Because the overall F test was significant, post hoc multiple comparisons were conducted to evaluate pairwise differences among the means of the three groups. A Tukey

procedure was selected for the multiple comparisons because equal variances were assumed. There was a significant difference in the means between the groups of teachers that had 4-8 years of experience and 9 or more years ($p = .021$). However, there was not a significant difference between the groups of teachers that had 0-3 years of experience and 4-8 years of experience or 0-3 years and 9 or more years. It appears that the teachers with 9 or more years of experience perceived that evaluation process was less effective at measuring their contributions and contributed less to their performance improvement than the group of teachers with 4-8 years of experience as measured by the teacher retention survey. The means and standard deviations for the teacher experience groups are reported in Table 7. Table 8 identifies the 95% confidence intervals of pairwise differences for teacher experience groups and boxplots are displayed in Figure 5.

Table 7

Means and Standard Deviations of Teachers' Experience by Evaluation Score

Experience	N	M	SD
0-3 Years	40	10.48	2.71
4-8 Years	56	10.71	2.96
9 or More Years	114	9.47	2.76

Table 8

95% Confidence Intervals of Pairwise Differences of Teacher Experience

Teacher Years of Experience	0-3 Years	4-8 Years
0-3 Years		
4-8 Years	[-1.60, 1.14]	
9 or More Years	[-.21, 2.22]	[.15, 2.31]*

*Significant at .05.

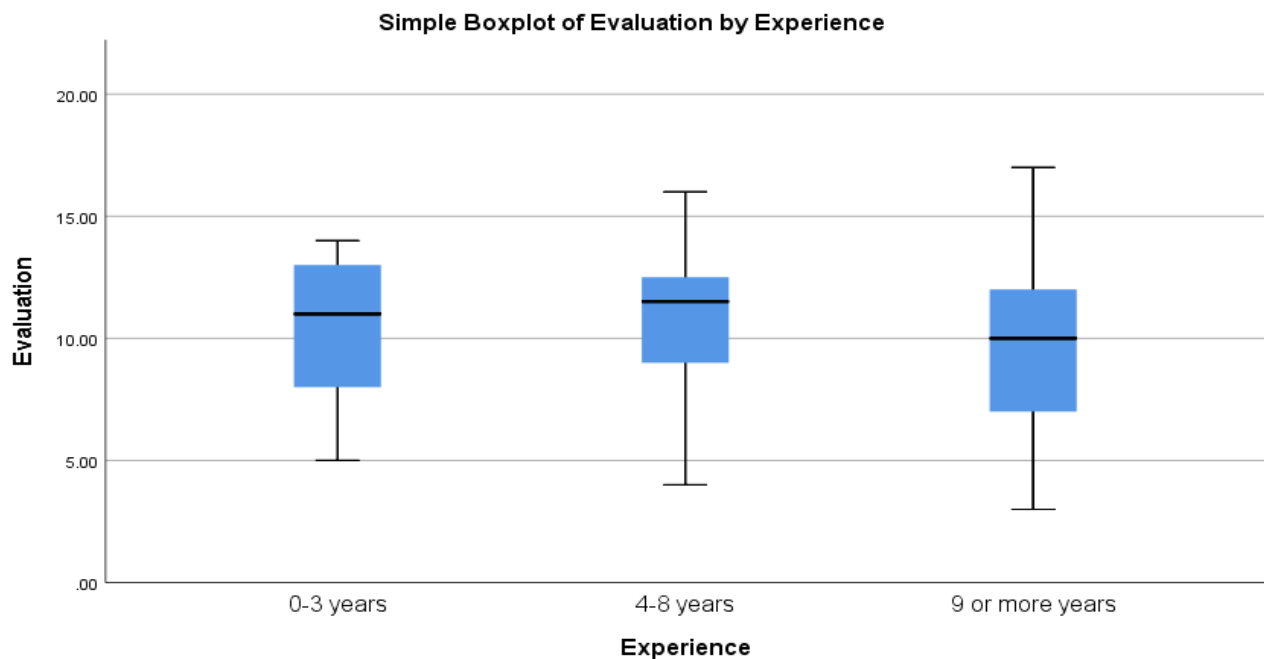


Figure 5. Boxplot of evaluation scores by teachers' years of experience.

H_{06} : There are no significant differences in the mean scores of PK-12 teachers for Dimension 6 (Mentorship) among the years of experience categories (0-3 years, 4-8 years, or 9 or more years).

A one-way analysis of variance (ANOVA) was conducted to evaluate the relationship between teachers' years of experience and perceptions of the retention dimension

(mentorship). The factor variable was the teachers' years of experience in the classroom and included three levels: 0-3 years, 4-8 years, and 9 or more years. The dependent variable was the mentorship score derived from the teacher retention survey. The ANOVA was significant, $F(2, 207) = 5.25, p = .006$. Therefore, the null hypothesis was rejected. The strength of the relationship between teachers' years of experience and the mentorship dimension score as assessed by η^2 was small (.05).

Because the overall F test was significant, post hoc multiple comparisons were conducted to evaluate pairwise differences among the means of the three groups. A Tukey procedure was selected for the multiple comparisons because equal variances were assumed. There was a significant difference in the means between the groups of teachers that had 4-8 years of experience and 9 or more years ($p = .013$). However, there was not a significant difference between the groups of teachers that had 0-3 years of experience and 4-8 years of experience or 0-3 years and 9 or more years. It appears that teachers with 9 or more years of experience perceived that they received less benefit from the mentor program and placed less value in the mentorship program than the group of teachers with 4-8 years of experience as measured by the teacher retention survey. The means and standard deviations for the teacher experience groups are reported in Table 9. Table 10 identifies the 95% confidence intervals of pairwise differences for teacher experience groups and boxplots are displayed in Figure 6.

Table 9

Means and Standard Deviations of Teachers' Experience by Mentorship Score

Experience	N	M	SD
0-3 Years	40	7.60	1.45
4-8 Years	56	7.69	1.91
9 or More Years	114	6.75	2.20

Table 10

95% Confidence Intervals of Pairwise Differences of Teacher Experience

Teacher Years of Experience	0-3 Years	4-8 Years
0-3 Years		
4-8 Years	[-1.07, .89]	
9 or More Years	[-.02, 1.71]	[.16, 1.70]*

*Significant at .05.

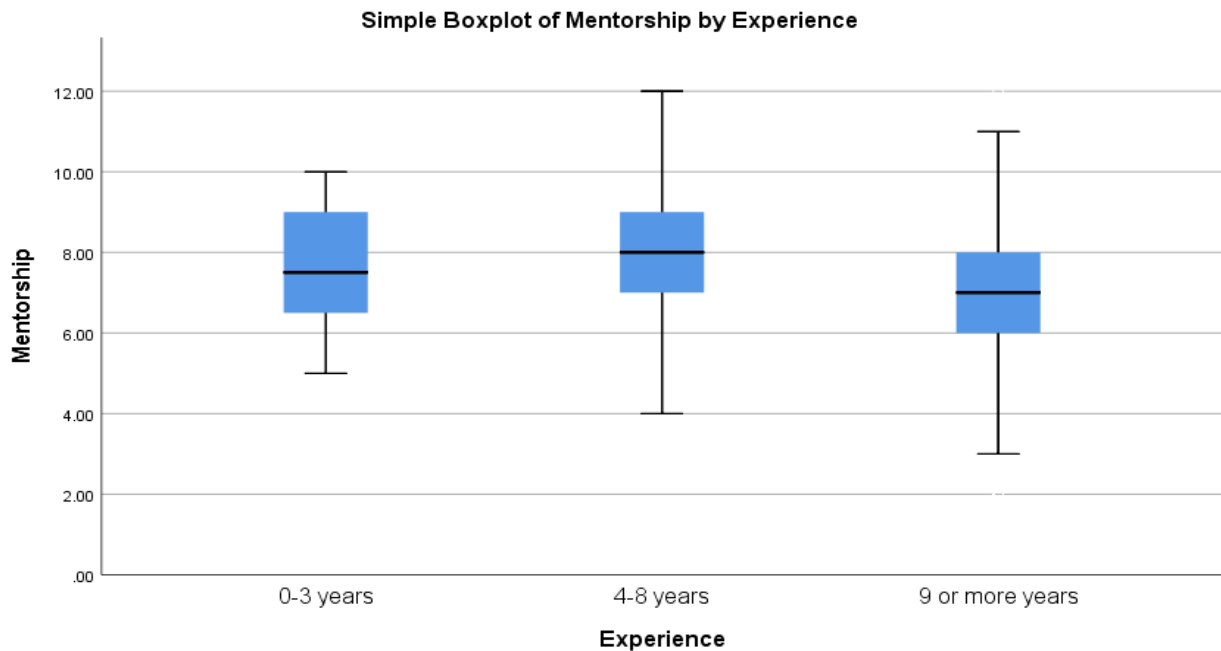


Figure 6. Boxplot of mentorship scores by teachers' years of experience.

Analysis of Research Question 2

Research Question 2: Is there a significant difference in the mean scores of PK-12 teachers for the six dimensions of the Teacher Retention Survey between male and female teachers?

Ho2₁: There are no significant differences in the mean scores of PK-12 teachers for Dimension 1 (Work Environment) between male and female teachers.

An independent-samples t test was conducted to evaluate whether the mean scores of male and female PK-12 teachers were significantly different. The work environment score from the teacher retention survey was the test variable and the grouping variable was male or female. Levene's test for equality of variances was not significant, so equal variance was assumed. The test was not significant, $t(204) = -.74, p = .460$. Therefore, the null hypothesis was retained. Male teachers ($M = 24.30, SD = 4.07$) tended to rate the work environment dimension about the same as female teachers ($M = 24.92, SD = 4.09$) on the teacher retention survey. The 95% confidence interval for the difference in means was -2.25 to 1.02. The η^2 index was .01, which indicated a small effect size. Figure 7 shows the distributions for the two groups.

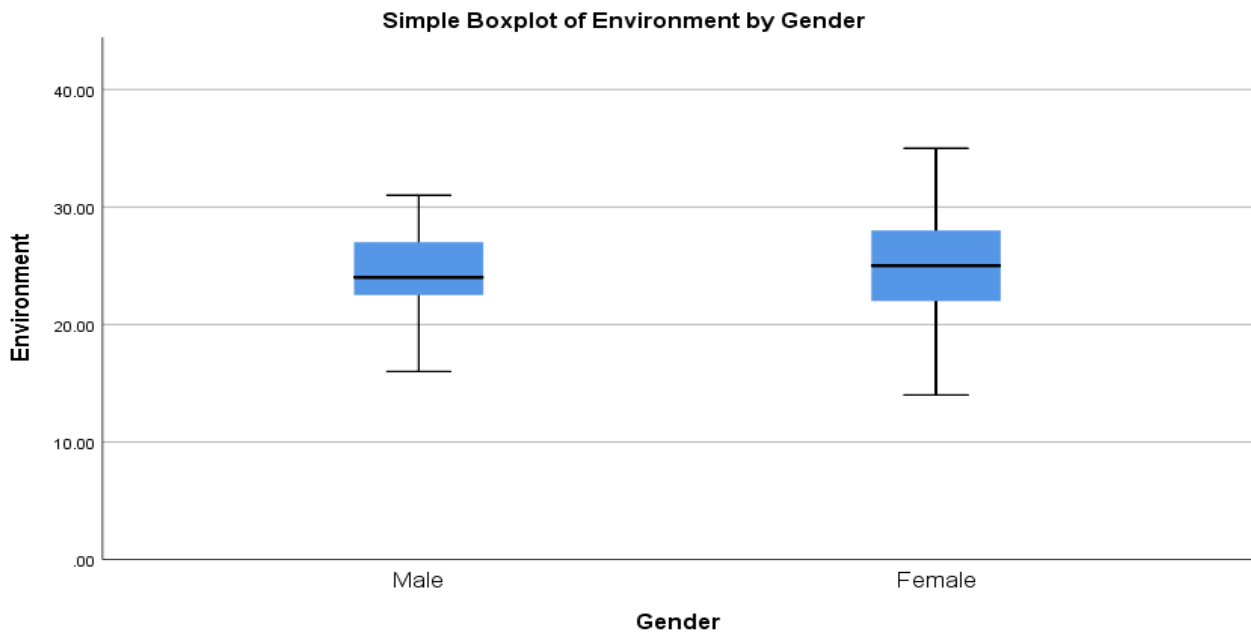


Figure 7. Boxplot of work environment scores by teachers' gender.

Ho2₂: There are no significant differences in the mean scores of PK-12 teachers for Dimension 2 (Fit) between male and female teachers.

An independent-samples t test was conducted to evaluate whether the mean scores of male and female PK-12 teachers were significantly different. The fit score from the teacher retention survey was the test variable and the grouping variable was male or female. Levene's test for equality of variances was not significant, so equal variance was assumed. The test was not significant, $t(204) = -.33, p = .745$. Therefore, the null hypothesis was retained. Male teachers ($M = 27.75, SD = 4.59$) tended to rate the fit dimension about the same as female teachers ($M = 28.03, SD = 4.13$) on the teacher retention survey. The 95% confidence interval for the difference in means was -1.96 to 1.40. The η^2 index was .03, which indicated a small effect size. Figure 8 shows the distributions for the two groups.

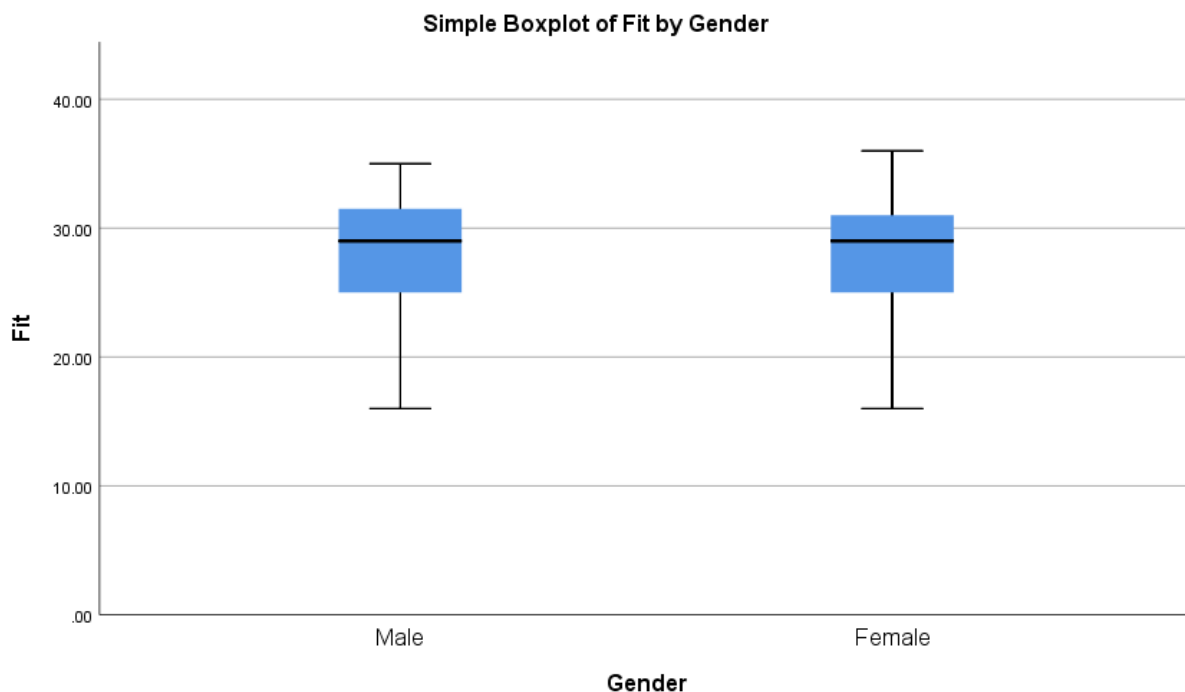


Figure 8. Boxplot of fit scores by teachers' gender.

Ho2₃: There are no significant differences in the mean scores of PK-12 teachers for Dimension 3 (Compensation) between male and female teachers.

An independent-samples t test was conducted to evaluate whether the mean scores of male and female PK-12 teachers were significantly different. The compensation score from the teacher retention survey was the test variable and the grouping variable was male or female. Levene's test for equality of variances was not significant, so equal variance was assumed. The test was not significant, $t(204) = .02, p = .985$. Therefore, the null hypothesis was retained. Male teachers ($M = 15.20, SD = 3.10$) tended to rate the compensation dimension about the same as female teachers ($M = 15.19, SD = 2.85$) on the teacher retention survey. The 95% confidence interval for the difference in means was -1.15 to 1.17. The η^2 index was .02, which indicated a small effect size. Figure 9 shows the distributions for the two groups.

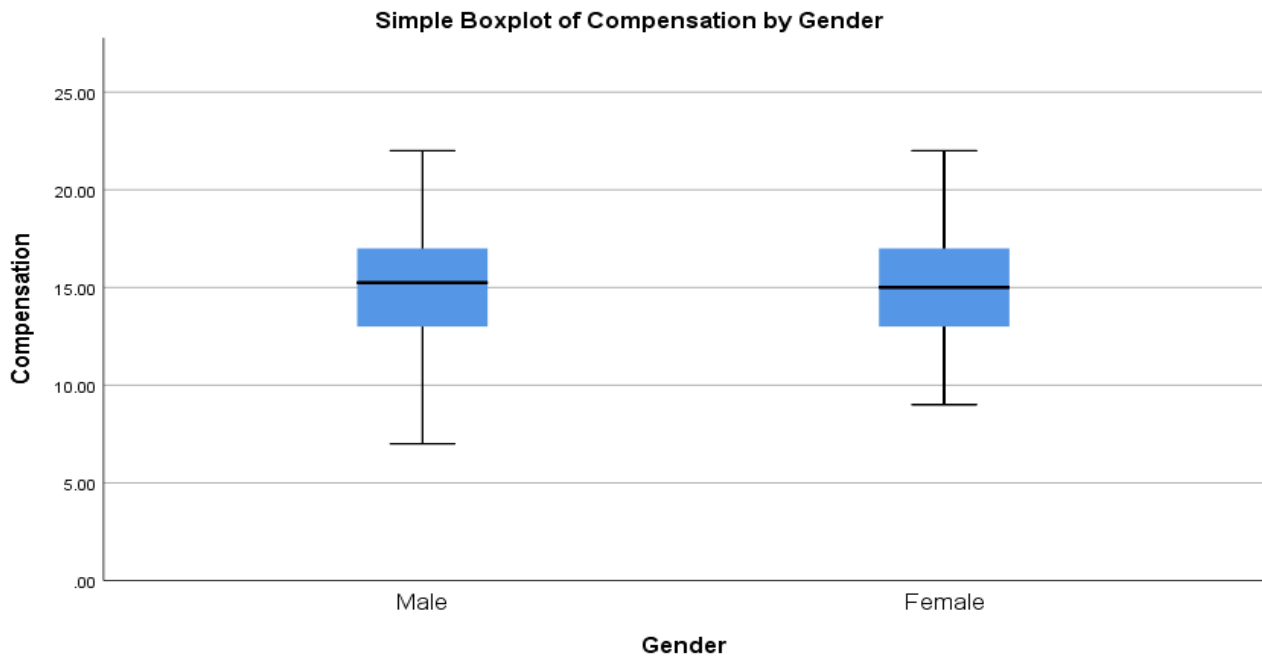


Figure 9. Boxplot of compensation scores by teachers' gender.

Ho24: There are no significant differences in the mean scores of PK-12 teachers for Dimension 4 (Leadership) between male and female teachers.

An independent-samples t test was conducted to evaluate whether the mean scores of male and female PK-12 teachers were significantly different. The leadership score from the teacher retention survey was the test variable and the grouping variable was male or female. Levene’s test for equality of variances was significant, so equal variance was not assumed. The test was significant, $t(204) = -2.64, p = .014$. Therefore, the null hypothesis was rejected. Male teachers ($M = 9.86, SD = 4.51$) tended to rate the leadership dimension lower on the teacher retention survey than female teachers ($M = 12.22, SD = 4.38$). The 95% confidence interval for the difference in means was -4.21 to -.51. The η^2 index was .04, which indicated a small effect size. Male teachers perceived that their school’s leadership was not as effective at providing assistance, making interpersonal connections, and supporting their development as did female teachers. Figure 10 shows the distributions for the two groups.

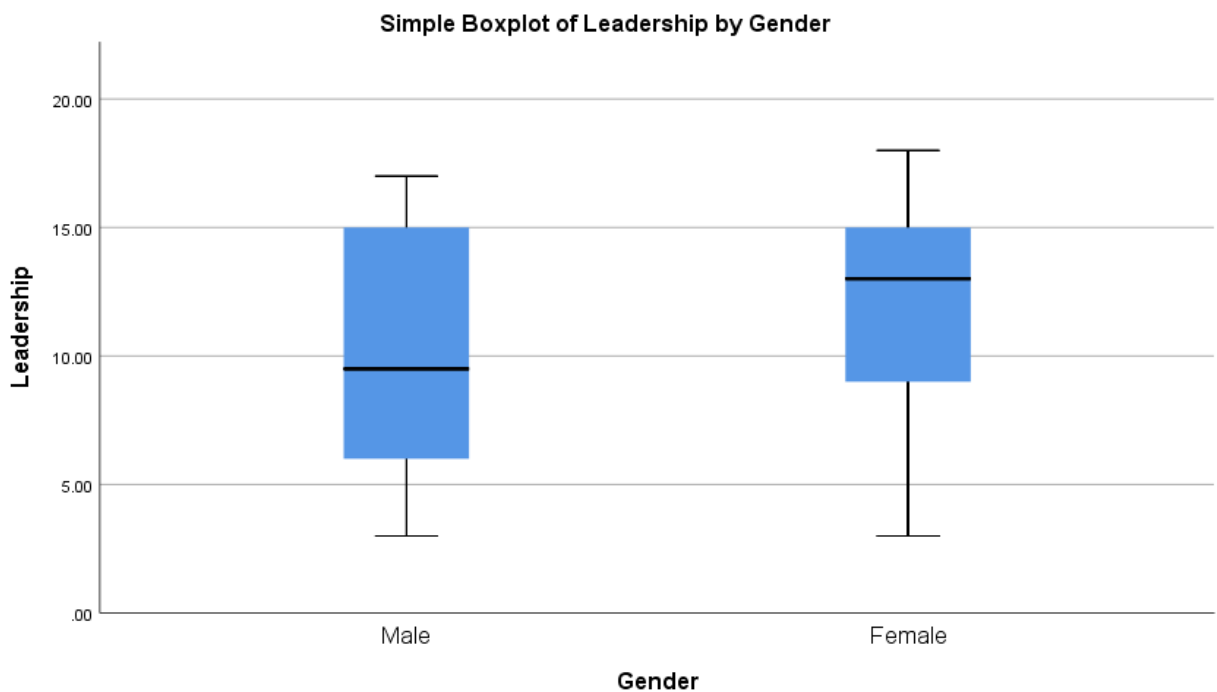


Figure 10. Boxplot of leadership scores by teachers’ gender.

Ho2₅: There are no significant differences in the mean scores of PK-12 teachers for Dimension 5 (Evaluation) between male and female teachers.

An independent-samples t test was conducted to evaluate whether the mean scores of male and female PK-12 teachers were significantly different. The evaluation score from the teacher retention survey was the test variable and the grouping variable was male or female. Levene's test for equality of variances was significant, so equal variance was not assumed. The test was significant, $t(204) = -2.5, p = .015$. Therefore, the null hypothesis was rejected. Male teachers ($M = 8.82, SD = 2.71$) tended to rate the evaluation dimension lower on the teacher retention survey than female teachers ($M = 10.23, SD = 2.81$). The 95% confidence interval for the difference in means was -2.53 to -.28. The η^2 index was .04, which indicated a small effect size. Male teachers perceived that their school's evaluation process was not as effective at measuring individual contributions or improving individual performance as much as female teachers did. Figure 11 shows the distributions for the two groups.

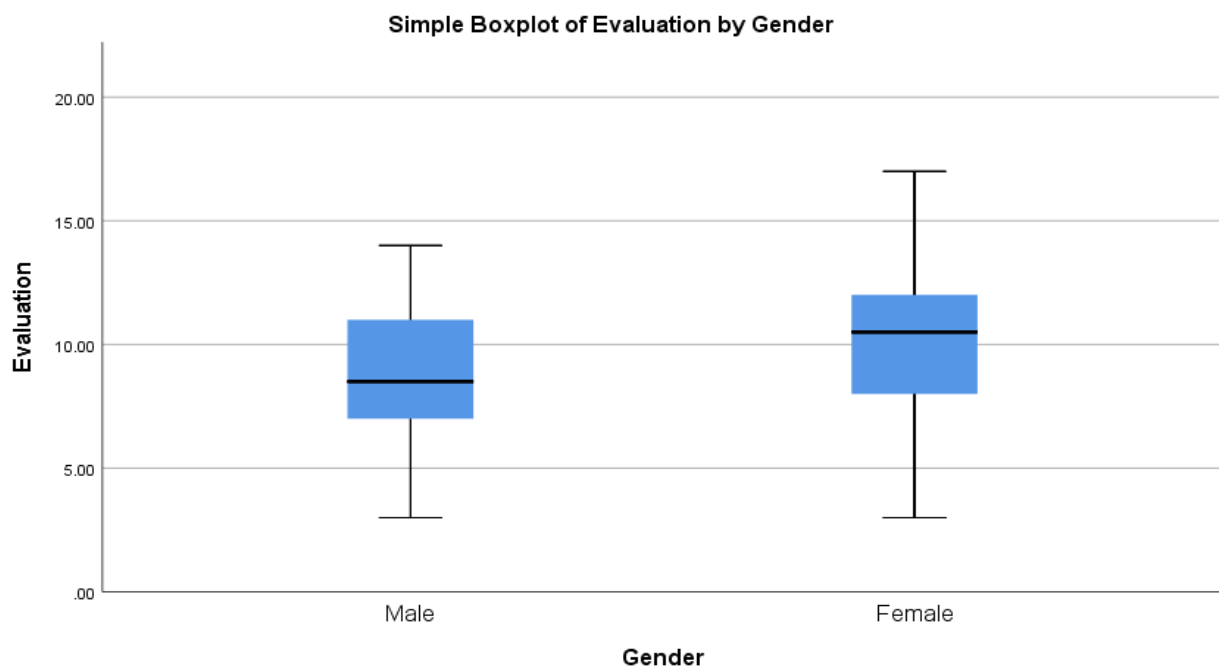


Figure 11. Boxplot of evaluation scores by teachers' gender.

Ho₂₆: There are no significant differences in the mean scores of PK-12 teachers for Dimension 6 (Mentorship) between male and female teachers.

An independent-samples t test was conducted to evaluate whether the mean scores of male and female PK-12 teachers were significantly different. The mentorship score from the teacher retention survey was the test variable and the grouping variable was male or female. Levene's test for equality of variances was not significant, so equal variance was assumed. The test was not significant, $t(204) = .78, p = .436$. Therefore, the null hypothesis was retained. Male teachers ($M = 7.46, SD = 2.03$) tended to rate the mentorship dimension about the same as female teachers ($M = 7.14, SD = 2.04$) on the teacher retention survey. The 95% confidence interval for the difference in means was $-.49$ to 1.14 . The η^2 index was $.01$, which indicated a small effect size. Figure 12 shows the distributions for the two groups.

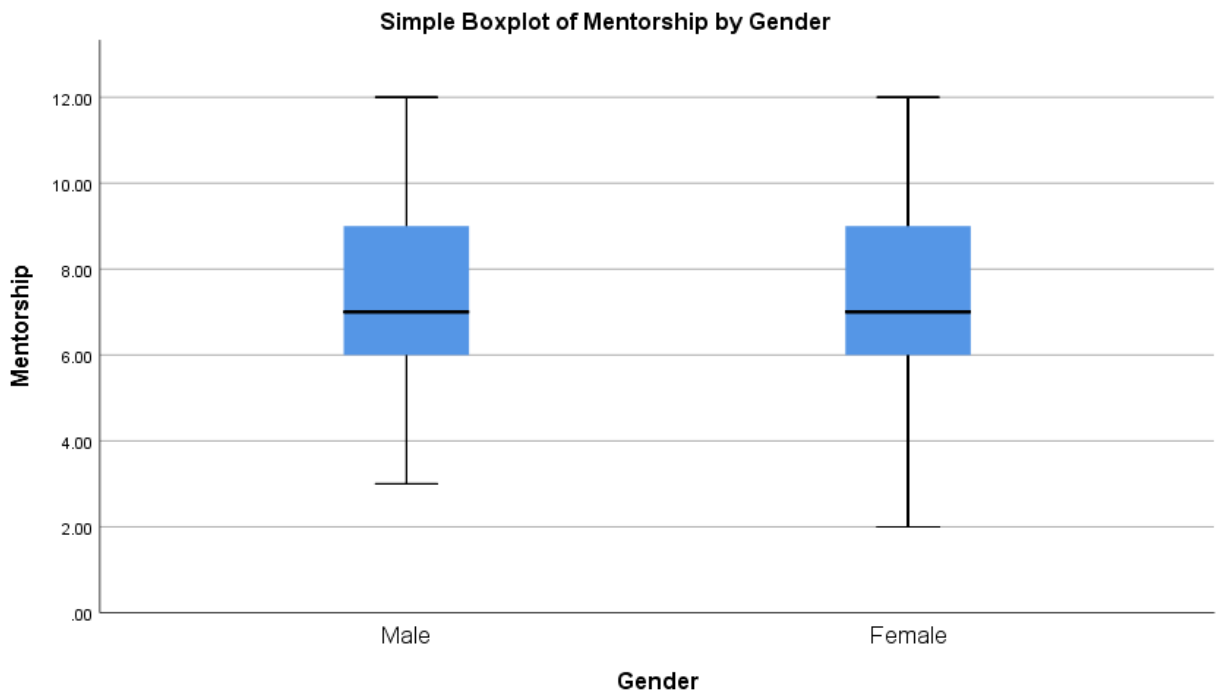


Figure 12. Boxplot of mentorship scores by teachers' gender.

Analysis of Research Question 3

Research Question 3: Is there a significant difference in the mean scores of PK-12 teachers for the six dimensions of the Teacher Retention Survey among the level of education categories (Bachelor's degree or Master's degree)?

Ho₃₁: There are no significant differences in the mean scores of PK-12 teachers for Dimension 1 (Work Environment) among the level of education categories (Bachelor's degree or Master's degree).

An independent-samples t test was conducted to evaluate whether the mean scores of PK-12 teachers with different levels of education were significantly different. The work environment score from the teacher retention survey was the test variable and the grouping variable was teachers' education level (Bachelors or Masters and higher). Levene's test for equality of variances was significant, so equal variance was not assumed. The test was significant, $t(208) = -2.41, p = .017$. Therefore, the null hypothesis was rejected. Teachers with only a Bachelor's degree ($M = 23.99, SD = 4.25$) tended to rate the work environment dimension lower on the teacher retention survey when compared to teachers with a Master's degree or higher ($M = 25.37, SD = 3.91$). The 95% confidence interval for the difference in means was -2.52 to -.25. The η^2 index was .02, which indicated a small effect size. Teachers with a Master's degree or higher seemed to have a more positive opinion about their work environment when compared to teachers with only a Bachelor's degree. Figure 13 shows the distributions for the two groups.

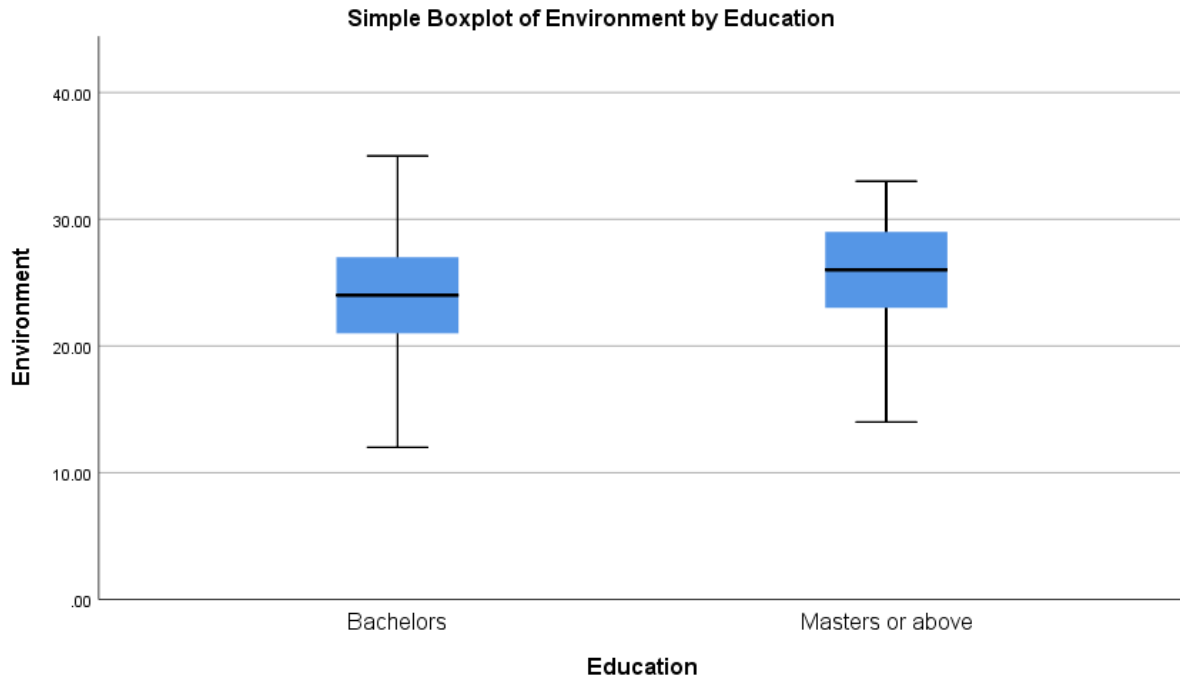


Figure 13. Boxplot of work environment scores by teachers' education level.

Ho3₂: There are no significant differences in the mean scores of PK-12 teachers for Dimension 2 (Fit) among the level of education categories (Bachelor's degree or Master's degree).

An independent-samples t test was conducted to evaluate whether the mean scores of PK-12 teachers with different levels of education were significantly different. The fit score from the teacher retention survey was the test variable and the grouping variable was teachers' education level (Bachelors or Masters and higher). Levene's test for equality of variances was significant, so equal variance was not assumed. The test was significant, $t(208) = -2.83$, $p = .006$. Therefore, the null hypothesis was rejected. Teachers with only a Bachelor's degree ($M = 26.90$, $SD = 4.44$) tended to rate the fit dimension lower on the teacher retention survey when compared to teachers with a Master's degree or higher ($M = 28.60$, $SD = 4.17$). The 95% confidence interval for the difference in means was -2.89 to -.50. The η^2 index was .04, which indicated a small effect size. Teachers with a Master's degree or higher seemed to have

a more positive opinion about how they fit within their school and community when compared to teachers with only a Bachelor's degree. Figure 14 shows the distributions for the two groups.

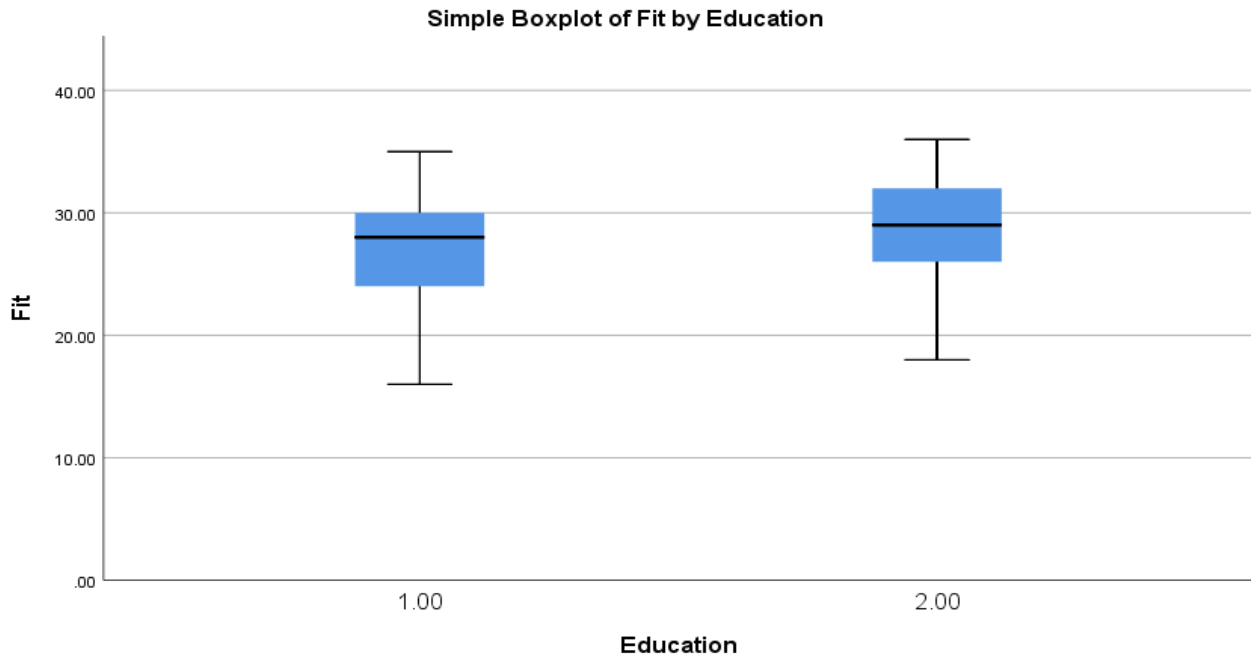


Figure 14. Boxplot of fit scores by teachers' education level.

Ho3₃: There are no significant differences in the mean scores of PK-12 teachers for Dimension 3 (Compensation) among the level of education categories (Bachelor's degree or Master's degree).

An independent-samples t test was conducted to evaluate whether the mean scores of PK-12 teachers with different levels of education were significantly different. The compensation score from the teacher retention survey was the test variable and the grouping variable was teachers' education level (Bachelors or Masters and higher). Levene's test for equality of variances was not significant, so equal variance was assumed. The test was not significant, $t(208) = -.73, p = .465$. Therefore, the null hypothesis was retained. Teachers

with only a Bachelor's degree ($M = 14.95$, $SD = 2.37$) tended to rate the compensation dimension about the same as teachers with a Master's degree or higher ($M = 15.25$, $SD = 3.35$). The 95% confidence interval for the difference in means was -1.13 to $.52$. The η^2 index was $.01$, which indicated a small effect size. Figure 15 shows the distributions for the two groups.

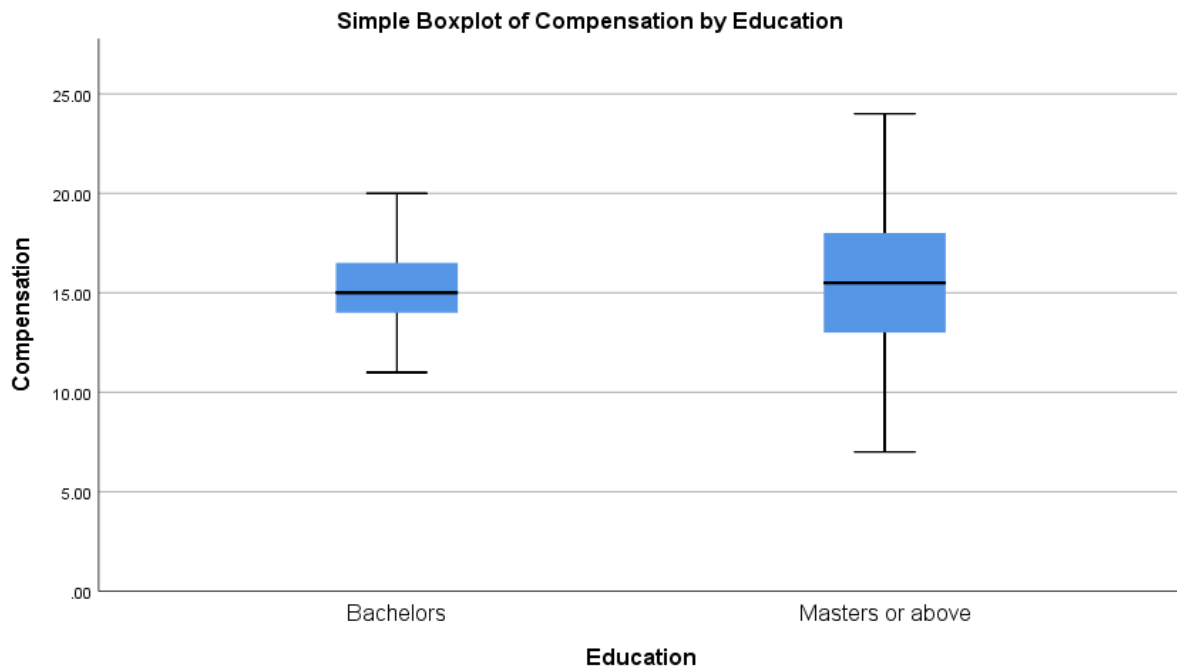


Figure 15. Boxplot of compensation scores by teachers' education level.

Ho3₄: There are no significant differences in the mean scores of PK-12 teachers for Dimension 4 (Leadership) among the level of education categories (bachelor's degree or master's degree).

An independent-samples t test was conducted to evaluate whether the mean scores of PK-12 teachers with different levels of education were significantly different. The leadership score from the teacher retention survey was the test variable and the grouping variable was teachers' education level (bachelors or masters and higher). Levene's test for equality of

variances was not significant, so equal variance was assumed. The test was not significant, $t(208) = -1.86, p = .064$. Therefore, the null hypothesis was retained. Teachers with a Bachelor's degree ($M = 11.16, SD = 4.46$) tended to rate the leadership dimension about the same as teachers with a Master's degree or higher ($M = 12.32, SD = 4.48$). The 95% confidence interval for the difference in means was -2.40 to .07. The η^2 index was .02, which indicated a small effect size. Figure 16 shows the distributions for the two groups.

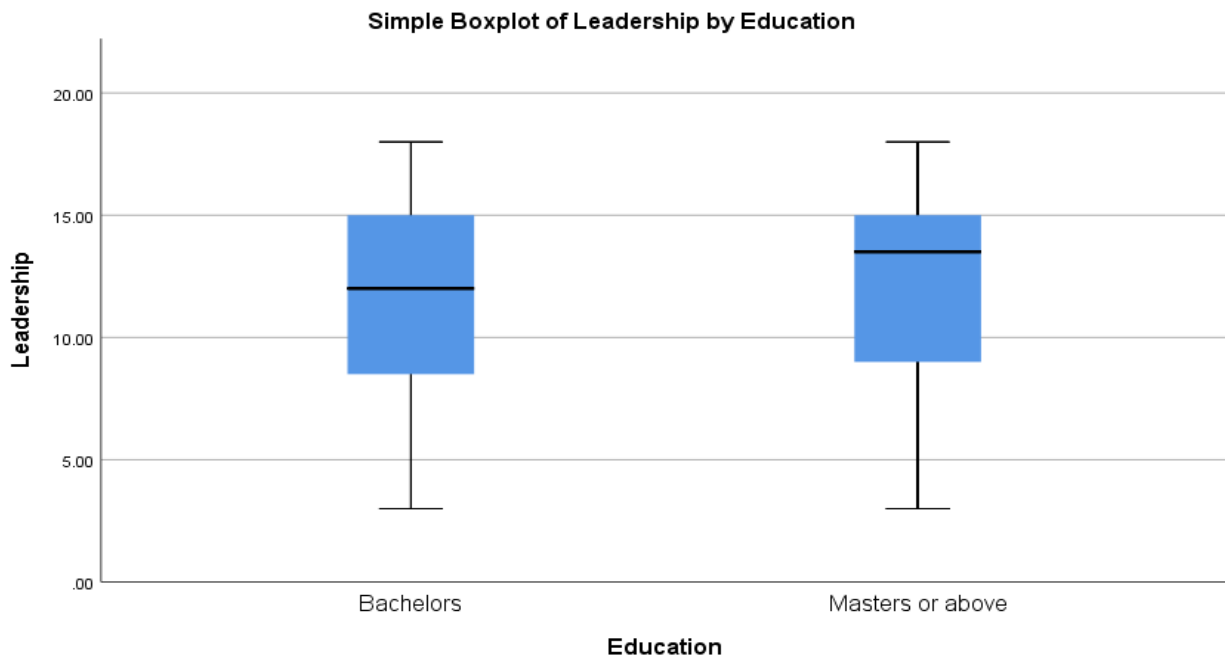


Figure 16. Boxplot of leadership scores by teachers' education level.

Ho3₅: There are no significant differences in the mean scores of PK-12 teachers for Dimension 5 (Evaluation) among the level of education categories (bachelor's degree or master's degree).

An independent-samples t test was conducted to evaluate whether the mean scores of PK-12 teachers with different levels of education were significantly different. The evaluation score from the teacher retention survey was the test variable and the grouping variable was teachers' education level (Bachelors or Masters and higher). Levene's test for equality of

variances was not significant, so equal variance was assumed. The test was not significant, $t(208) = .47, p = .985$. Therefore, the null hypothesis was retained. Teachers with a Bachelor's degree ($M = 9.99, SD = 2.96$) tended to rate the evaluation dimension about the same as teachers with a Master's degree or higher ($M = 9.99, SD = 2.78$). The 95% confidence interval for the difference in means was $-.79$ to $.78$. The η^2 index was $.01$, which indicated a small effect size. Figure 17 shows the distributions for the two groups.

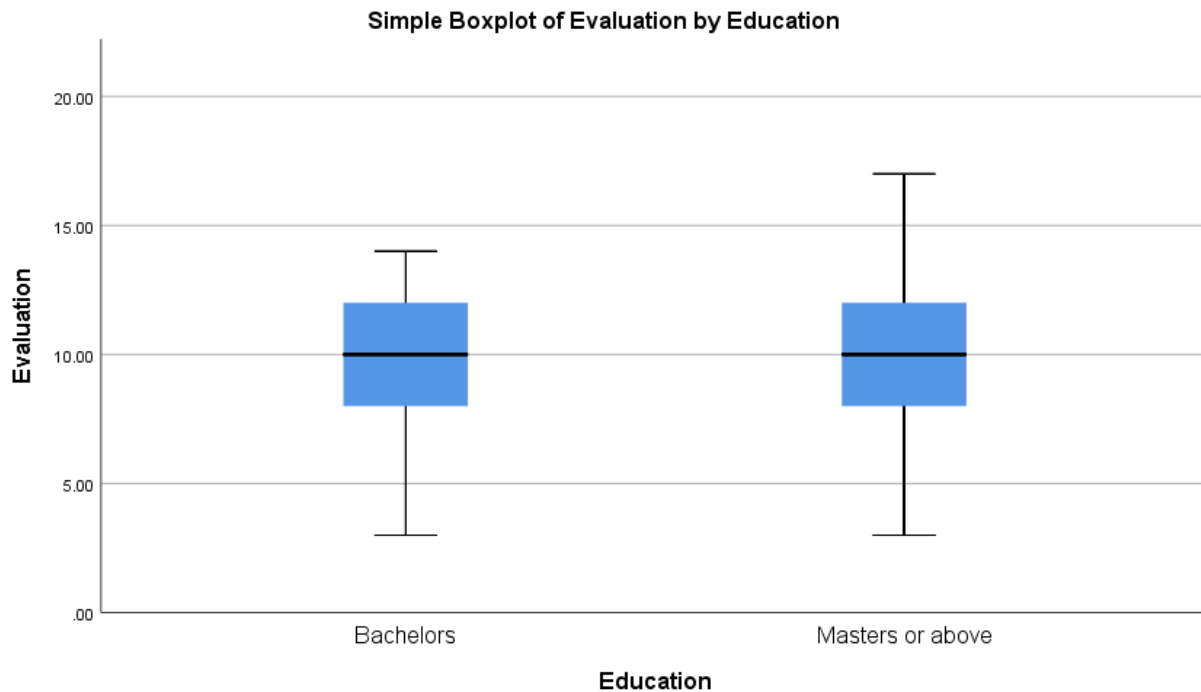


Figure 17. Boxplot of evaluation scores by teachers' education level.

Ho3₆: There are no significant differences in the mean scores of PK-12 teachers for Dimension 6 (Mentorship) among the level of education categories (bachelor's degree or master's degree).

An independent-samples t test was conducted to evaluate whether the mean scores of PK-12 teachers with different levels of education were significantly different. The mentorship score from the teacher retention survey was the test variable and the grouping variable was

teachers' education level (Bachelors or Masters and higher). Levene's test for equality of variances was not significant, so equal variance was assumed. The test was not significant, $t(208) = .24, p = .809$. Therefore, the null hypothesis was retained. Teachers with a Bachelor's degree ($M = 7.20, SD = 1.83$) tended to rate the mentorship dimension about the same as teachers with a Master's degree or higher ($M = 7.14, SD = 2.19$). The 95% confidence interval for the difference in means was $-.49$ to $.63$. The η^2 index was $.01$, which indicated a small effect size. Figure 18 shows the distributions for the two groups.

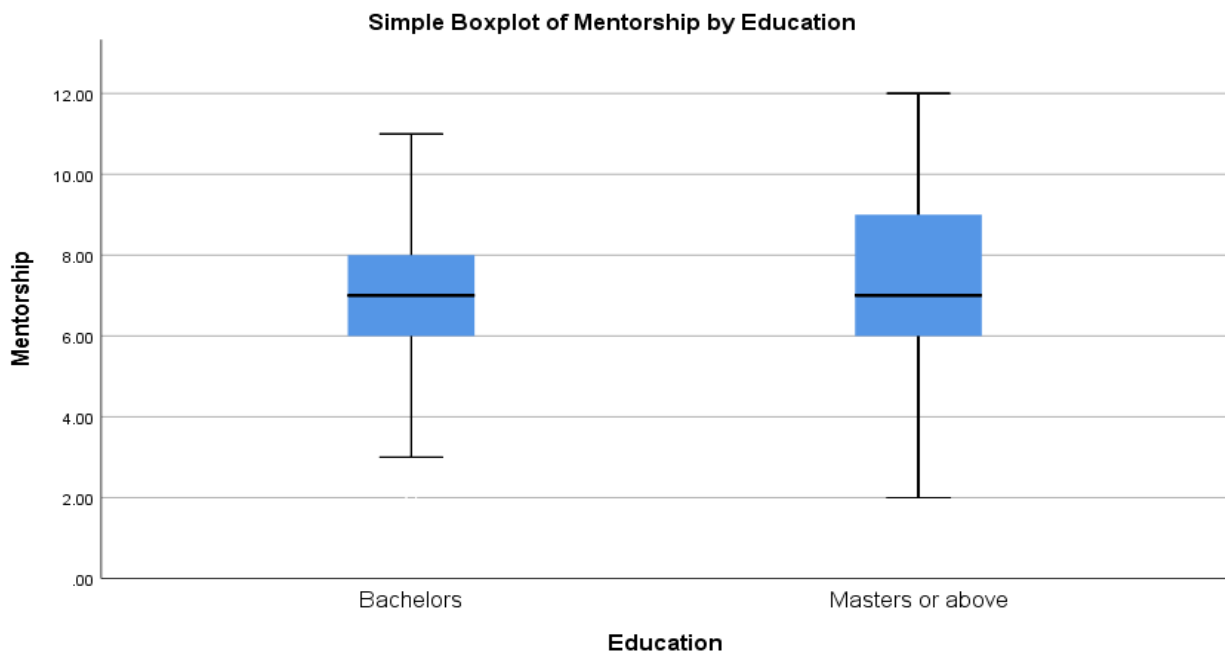


Figure 18. Boxplot of mentorship scores by teachers' education level.

Analysis of Research Question 4

Research Question 4: Is there a significant difference in the mean scores of PK-12 teachers for the six dimensions of the Teacher Retention Survey among the number of schools categories (1 school, 2 schools, 3 schools, or 4 or more schools)?

Ho4₁: There are no significant differences in the mean scores of PK-12 teachers for Dimension 1 (Work Environment) among the number of schools categories (1 school, 2 schools, 3 schools, or 4 or more schools).

A one-way analysis of variance (ANOVA) was conducted to evaluate the relationship between the number of different schools where a teacher has taught in his or her career and the retention dimension (work environment). The factor variable was the number of schools where a teacher had taught: 1 school, 2 schools, 3 schools, or 4 or more schools. The dependent variable was the work environment scores derived from the teacher retention survey. The ANOVA was not significant, $F(3, 206) = .38, p = .770$. Therefore, the null hypothesis was retained based on the work environment dimension. The strength of the relationship between the number of schools where teachers have taught and the work environment factor as assessed by η^2 was small ($<.01$). The results indicate that the work environment factor score was not significantly related to number of schools where teachers have taught. The means and standard deviations for the number of schools where teachers have taught are reported in Table 11 and boxplots are displayed in Figure 19.

Table 11

Means and Standard Deviations of School Categories by Work Environment Score

Schools	N	M	SD
1 School	69	24.57	4.19
2 Schools	51	24.52	4.60
3 Schools	33	24.89	3.78
4 or More Schools	57	25.25	3.76

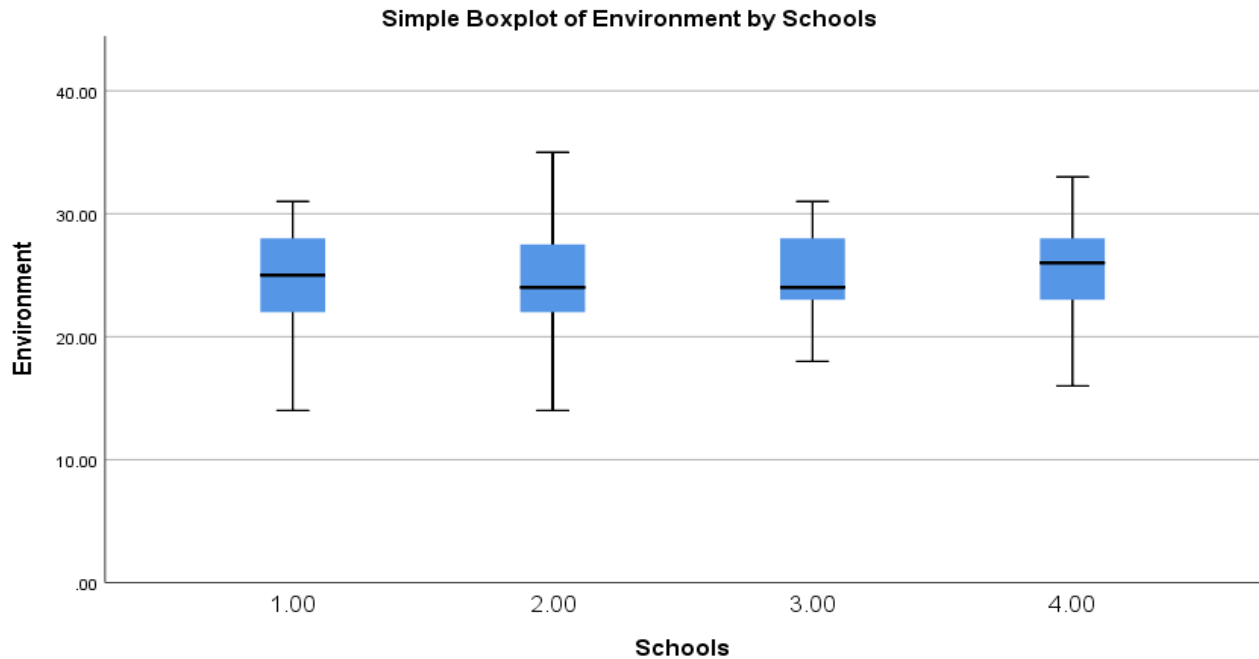


Figure 19. Boxplot of work environment scores by number of schools taught in.

Ho4₂: There are no significant differences in the mean scores of PK-12 teachers for Dimension 2 (Fit) among the number of schools categories (1 school, 2 schools, 3 schools, or 4 or more schools).

A one-way analysis of variance (ANOVA) was conducted to evaluate the relationship between the number of different schools where a teacher has taught in his or her career and the retention dimension (fit). The factor variable was the number of schools where a teacher had taught: 1 school, 2 schools, 3 schools, or 4 or more schools. The dependent variable was the fit scores derived from the teacher retention survey. The ANOVA was not significant, $F(3, 206) = .29, p = .834$. Therefore, the null hypothesis was retained based on the fit dimension. The strength of the relationship between the number of schools where teachers have taught and the fit factor as assessed by η^2 was small ($<.01$). The results indicate that the fit factor score was not significantly related to number of schools where teachers have taught. The

means and standard deviations for the number of schools where teachers have taught are reported in Table 12 and boxplots are displayed in Figure 20.

Table 12

Means and Standard Deviations of School Categories by Fit Score

Schools	N	M	SD
1 School	69	27.56	4.25
2 Schools	51	28.25	4.20
3 Schools	33	27.73	3.97
4 or More Schools	57	28.06	4.87

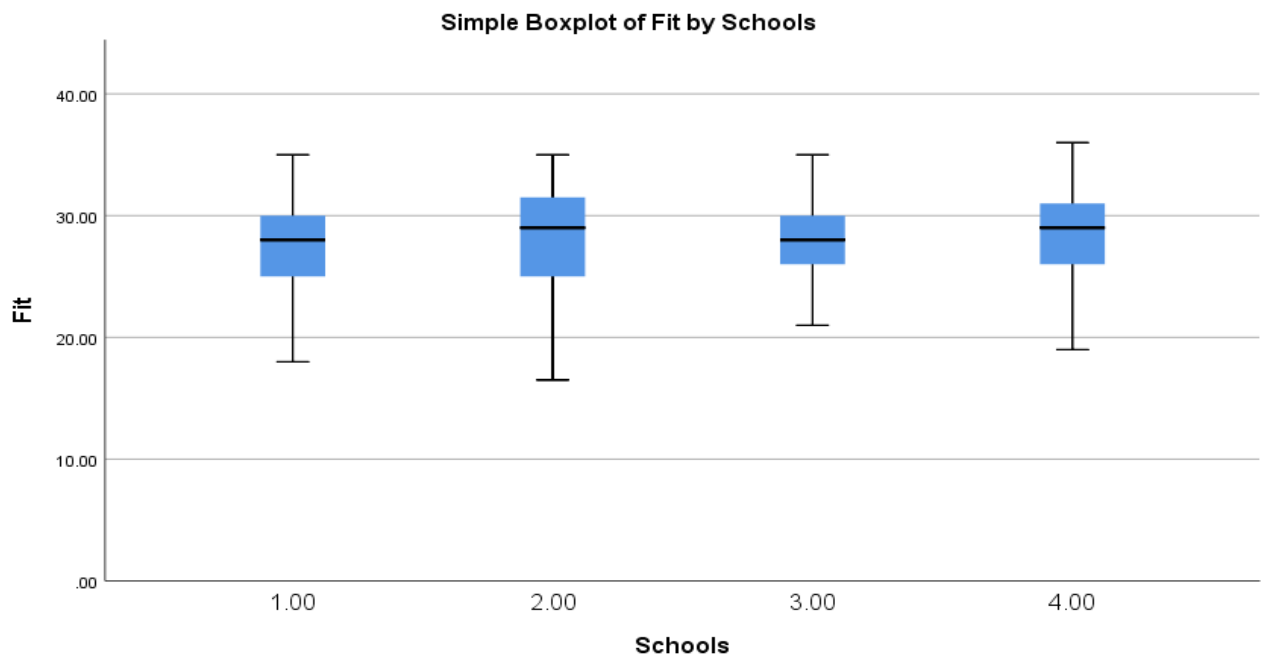


Figure 20. Boxplot of fit scores by number of schools taught in.

Ho4₃: There are no significant differences in the mean scores of PK-12 teachers for Dimension 3 (Compensation) among the number of schools categories (1 school, 2 schools, 3 schools, or 4 or more schools).

A one-way analysis of variance (ANOVA) was conducted to evaluate the relationship between the number of different schools where a teacher has taught in his or her career and the retention dimension (compensation). The factor variable was the number of schools where a teacher had taught: 1 school, 2 schools, 3 schools, or 4 or more schools. The dependent variable was the compensation scores derived from the teacher retention survey. The ANOVA was not significant, $F(3, 206) = .52, p = .667$. Therefore, the null hypothesis was retained based on the fit dimension. The strength of the relationship between the number of schools where teachers have taught and the compensation factor as assessed by η^2 was small ($<.01$). The results indicate that the compensation factor score was not significantly related to number of schools where teachers have taught. The means and standard deviations for the number of schools where teachers have taught are reported in Table 13 and boxplots are displayed in Figure 21.

Table 13

Means and Standard Deviations of School Categories by Compensation Score

Schools	N	M	SD
1 School	69	14.88	2.48
2 Schools	51	14.94	3.13
3 Schools	33	15.45	3.08
4 or More Schools	57	15.40	3.34

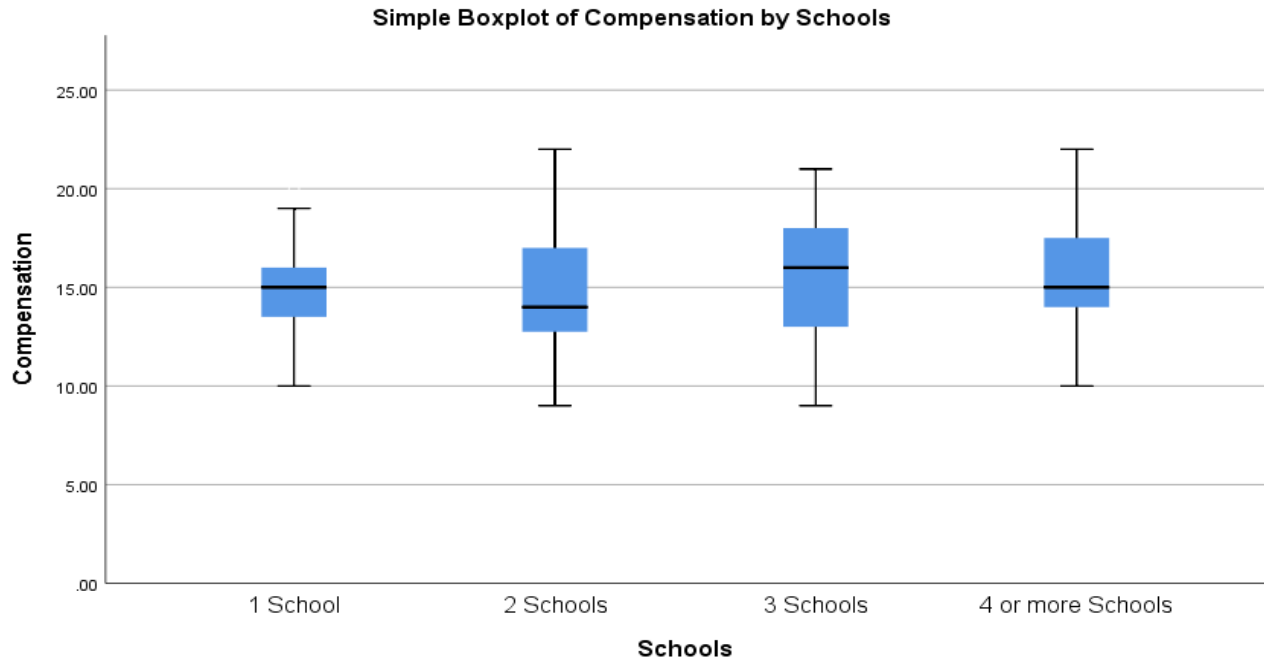


Figure 21. Boxplot of compensation scores by number of schools taught in.

Ho4: There are no significant differences in the mean scores of PK-12 teachers for Dimension 4 (Leadership) among the number of schools categories (1 school, 2 schools, 3 schools, or 4 or more schools).

A one-way analysis of variance (ANOVA) was conducted to evaluate the relationship between the number of different schools where a teacher has taught in his or her career and the retention dimension (leadership). The factor variable was the number of schools where a teacher had taught: 1 school, 2 schools, 3 schools, or 4 or more schools. The dependent variable was the leadership scores derived from the teacher retention survey. The ANOVA was not significant, $F(3, 206) = 2.01, p = .117$. Therefore, the null hypothesis was retained based on the leadership dimension. The strength of the relationship between the number of schools where teachers have taught and the leadership factor as assessed by η^2 was small (.03). The results indicate that the leadership factor score was not significantly related to number of schools where teachers have taught. The means and standard deviations for the number of

schools where teachers have taught are reported in Table 14 and boxplots are displayed in Figure 22.

Table 14

Means and Standard Deviations of School Categories by Leadership Score

Schools	N	M	SD
1 School	69	11.09	4.71
2 Schools	51	12.78	4.10
3 Schools	33	11.06	4.90
4 or More Schools	57	12.34	4.20

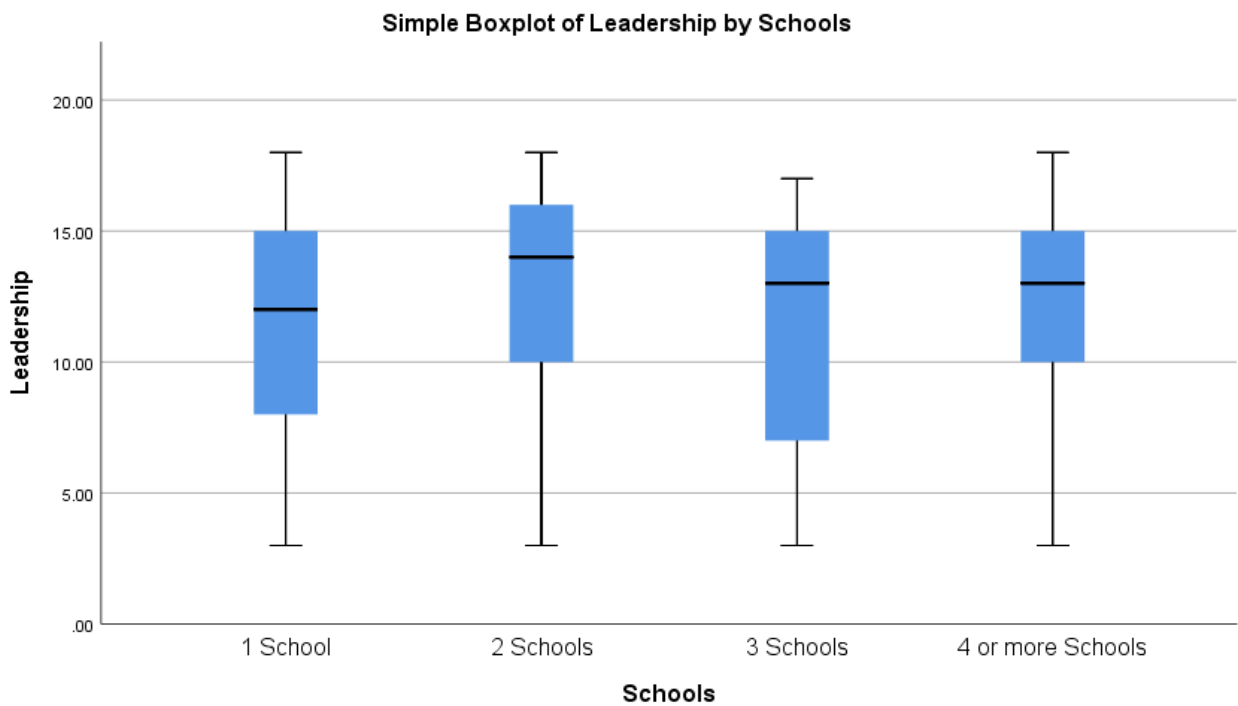


Figure 22. Boxplot of leadership scores by number of schools taught in.

Ho4₅: There are no significant differences in the mean scores of PK-12 teachers for Dimension 5 (Evaluation) among the number of schools categories (1 school, 2 schools, 3 schools, or 4 or more schools).

A one-way analysis of variance (ANOVA) was conducted to evaluate the relationship between the number of different schools where a teacher has taught in his or her career and the retention dimension (evaluation). The factor variable was the number of schools where a teacher had taught: 1 school, 2 schools, 3 schools, or 4 or more schools. The dependent variable was the evaluation scores derived from the teacher retention survey. The ANOVA was not significant, $F(3, 206) = .68, p = .567$. Therefore, the null hypothesis was retained based on the evaluation dimension. The strength of the relationship between the number of schools where teachers have taught and the evaluation factor as assessed by η^2 was small (.01). The results indicate that the evaluation factor score was not significantly related to number of schools where teachers have taught. The means and standard deviations for the number of schools where teachers have taught are reported in Table 15 and boxplots are displayed in Figure 23.

Table 15

Means and Standard Deviations of School Categories by Evaluation Score

Schools	N	M	SD
1 School	69	9.75	2.99
2 Schools	51	10.46	2.70
3 Schools	33	10.03	2.74
4 or More Schools	57	9.85	2.88

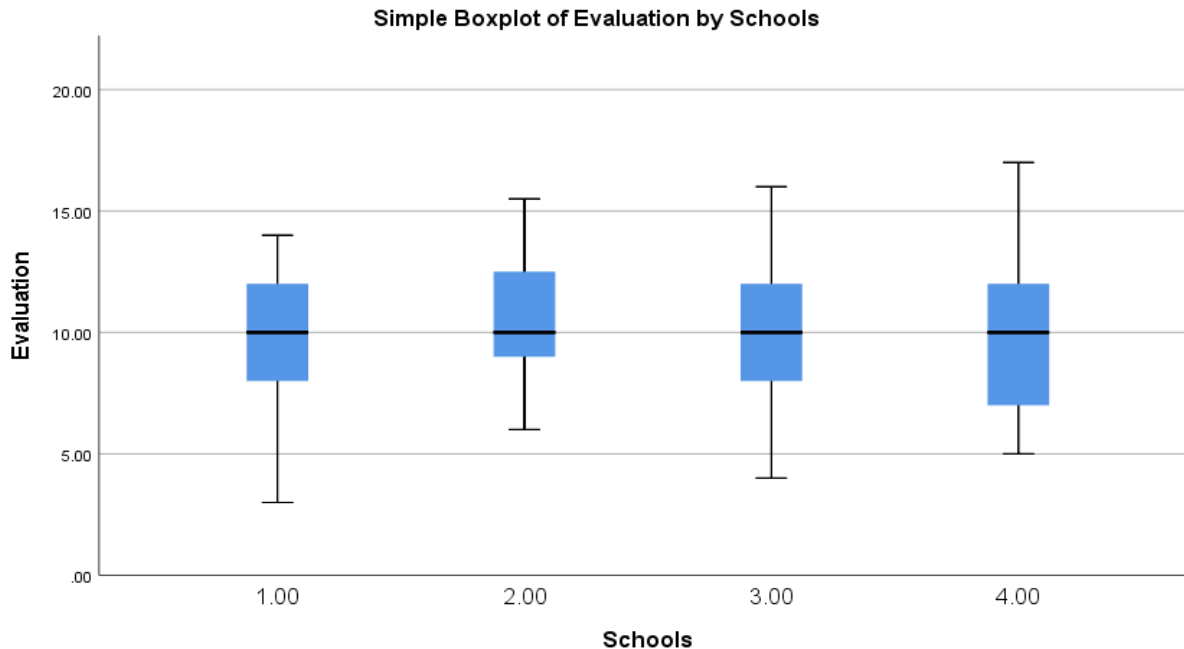


Figure 23. Boxplot of evaluation scores by number of schools taught in.

Ho₄₆: There are no significant differences in the mean scores of PK-12 teachers for Dimension 6 (Mentorship) among the number of schools categories (1 school, 2 schools, 3 schools, or 4 or more schools).

A one-way analysis of variance (ANOVA) was conducted to evaluate the relationship between the number of different schools where a teacher has taught in his or her career and the retention dimension (mentorship). The factor variable was the number of schools where a teacher had taught: 1 school, 2 schools, 3 schools, or 4 or more schools. The dependent variable was the mentorship scores derived from the teacher retention survey. The ANOVA was not significant, $F(3, 206) = 1.18, p = .317$. Therefore, the null hypothesis was retained based on the mentorship dimension. The strength of the relationship between the number of schools where teachers have taught and the mentorship factor as assessed by η^2 was small (.02). The results indicate that the mentorship factor score was not significantly related to number of schools where teachers have taught. The means and standard deviations for the

number of schools where teachers have taught are reported in Table 16 and boxplots are displayed in Figure 24.

Table 16

Means and Standard Deviations of School Categories by Mentorship Score

Schools	N	M	SD
1 School	69	7.43	1.73
2 Schools	51	7.26	2.11
3 Schools	33	7.14	2.20
4 or More Schools	57	6.76	2.22

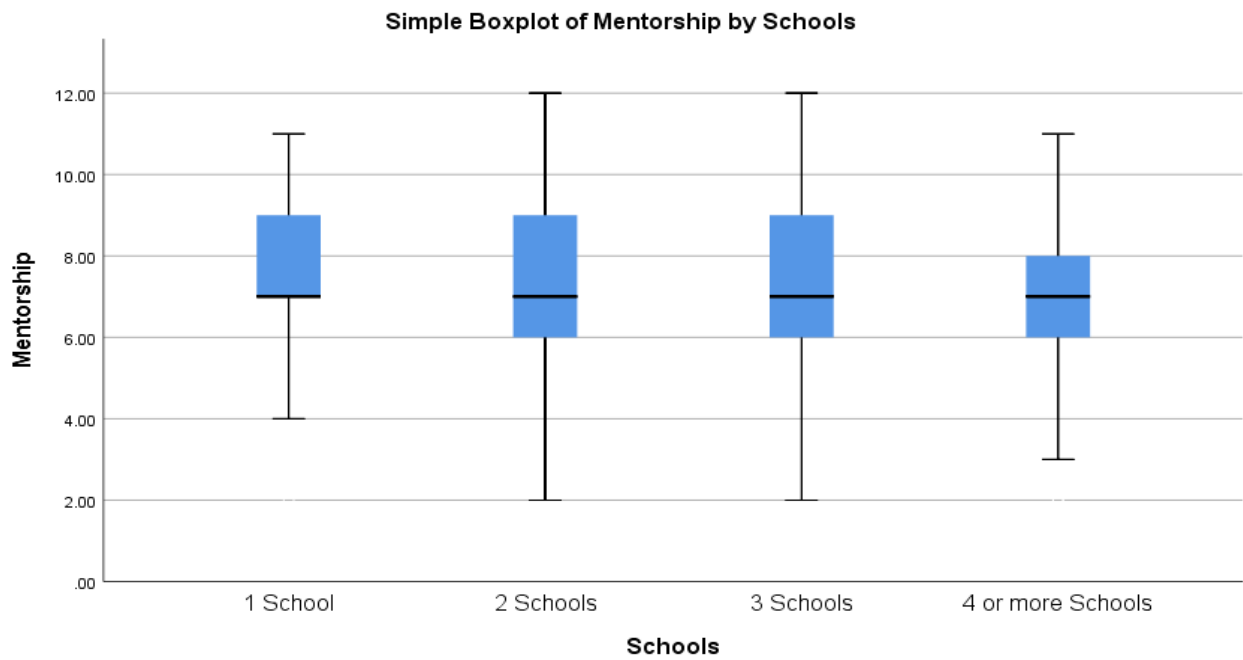


Figure 24. Boxplot of mentorship scores by number of schools taught in.

Analysis of Research Question 5

Research Question 5: Is there a significant difference in the mean scores of PK-12 teachers for the six dimensions of the Teacher Retention Survey among the number of school districts categories (1 district, 2 districts, 3 districts, or 4 or more districts)?

Ho5₁: There are no significant differences in the mean scores of PK-12 teachers for Dimension 1 (Work Environment) among the number of school districts categories (1 district, 2 districts, 3 districts, or 4 or more districts).

A one-way analysis of variance (ANOVA) was conducted to evaluate the relationship between the number of different school districts where a teacher has taught in his or her career and the retention dimension (work environment). The factor variable was the number of school districts where a teacher had taught: 1 district, 2 districts, 3 districts, or 4 or more districts. The dependent variable was the work environment scores derived from the teacher retention survey. The ANOVA was not significant, $F(3, 206) = .60, p = .618$. Therefore, the null hypothesis was retained based on the work environment dimension. The strength of the relationship between the number of districts where teachers have taught and the work environment factor as assessed by η^2 was small ($<.01$). The results indicate that the work environment factor score was not significantly related to number of districts where teachers have taught. The means and standard deviations for the number of districts where teachers have taught are reported in Table 17 and boxplots are displayed in Figure 25.

Table 17

Means and Standard Deviations of District Categories by Work Environment Score

Districts	N	M	SD
1 District	116	24.47	4.26
2 Districts	39	25.41	4.12
3 Districts	25	25.08	3.58
4 or More Districts	30	25.00	3.92

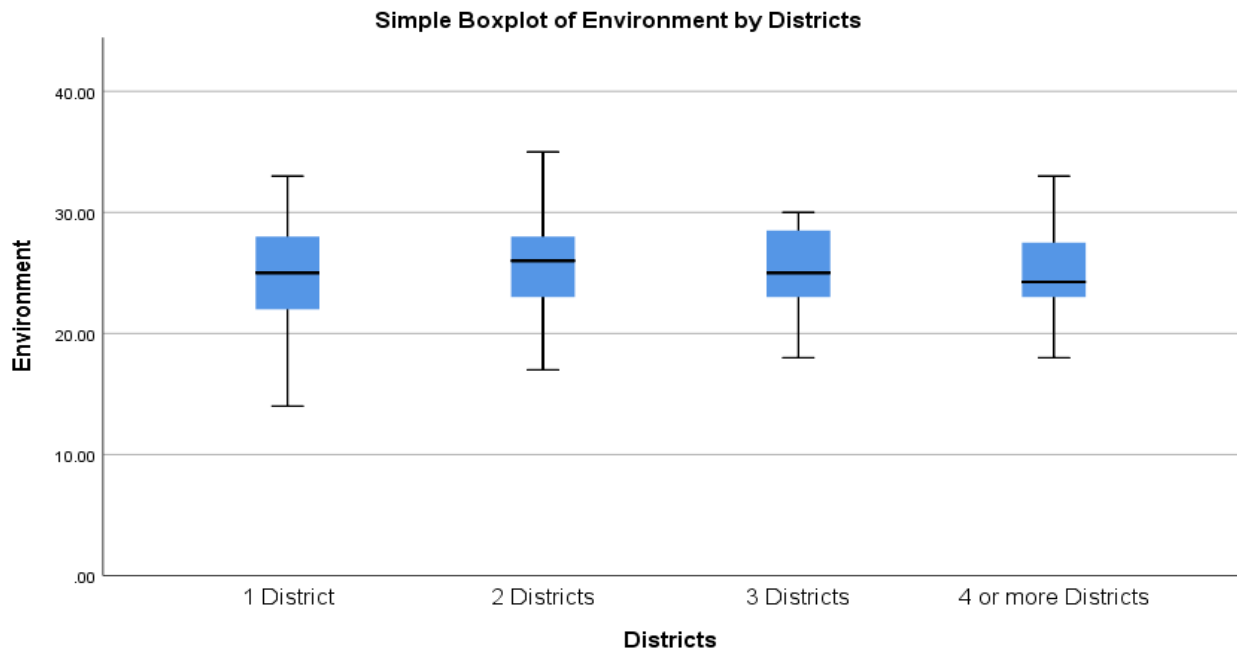


Figure 25. Boxplot of work environment scores by number of districts taught in.

Ho5₂: There are no significant differences in the mean scores of PK-12 teachers for Dimension 2 (Fit) among the number of school districts categories (1 district, 2 districts, 3 districts, or 4 or more districts).

A one-way analysis of variance (ANOVA) was conducted to evaluate the relationship between the number of different school districts where a teacher has taught in his or her career and the retention dimension (fit). The factor variable was the number of school districts where

a teacher had taught: 1 district, 2 districts, 3 districts, or 4 or more districts. The dependent variable was the fit scores derived from the teacher retention survey. The ANOVA was not significant, $F(3, 206) = .08, p = .969$. Therefore, the null hypothesis was retained based on the fit dimension. The strength of the relationship between the number of districts where teachers have taught and the fit factor as assessed by η^2 was small ($<.01$). The results indicate that the fit factor score was not significantly related to number of districts where teachers have taught. The means and standard deviations for the number of districts where teachers have taught are reported in Table 18 and boxplots are displayed in Figure 26.

Table 18

Means and Standard Deviations of District Categories by Fit Score

Districts	N	M	SD
1 District	116	27.84	4.37
2 Districts	39	27.82	3.70
3 Districts	25	28.30	4.96
4 or More Districts	30	27.83	4.73

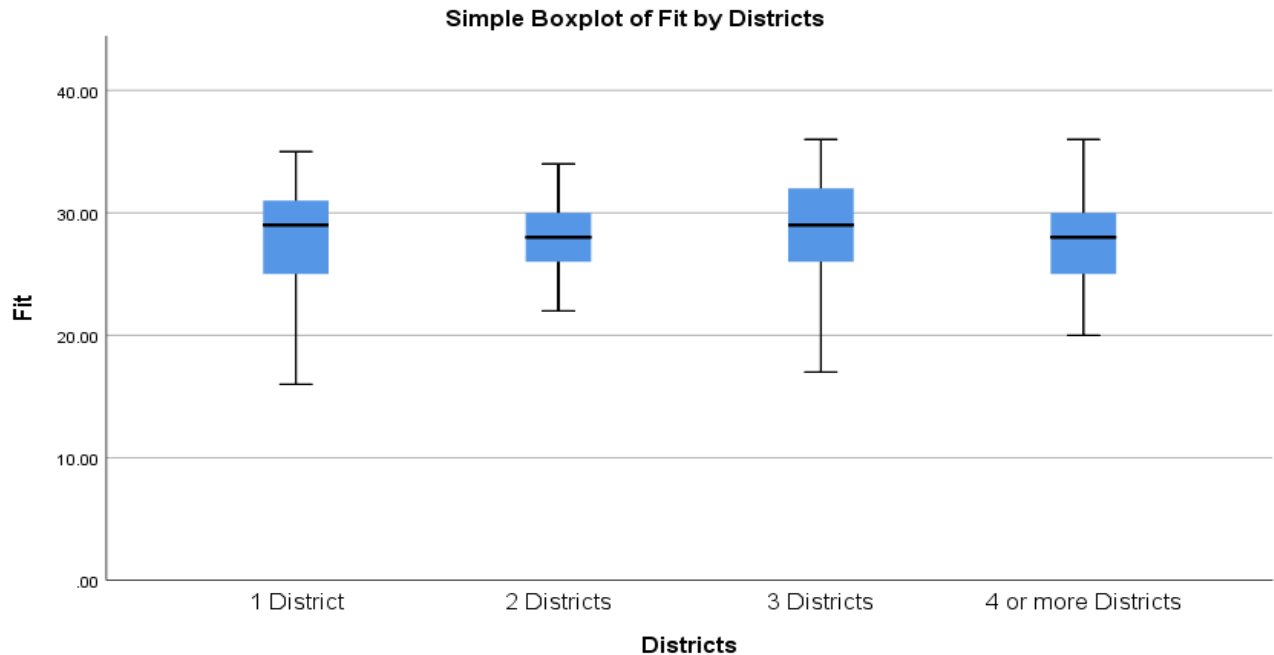


Figure 26. Boxplot of fit scores by number of districts taught in.

Ho5₃: There are no significant differences in the mean scores of PK-12 teachers for Dimension 3 (Compensation) among the number of school districts categories (1 district, 2 districts, 3 districts, or 4 or more districts).

A one-way analysis of variance (ANOVA) was conducted to evaluate the relationship between the number of different school districts where a teacher has taught in his or her career and the retention dimension (compensation). The factor variable was the number of school districts where a teacher had taught: 1 district, 2 districts, 3 districts, or 4 or more districts. The dependent variable was the compensation scores derived from the teacher retention survey. The ANOVA was not significant, $F(3, 206) = .73, p = .533$. Therefore, the null hypothesis was retained based on the compensation dimension. The strength of the relationship between the number of districts where teachers have taught and the compensation factor as assessed by η^2 was small (.01). The results indicate that the compensation factor score was not significantly related to number of districts where teachers have taught. The

means and standard deviations for the number of districts where teachers have taught are reported in Table 19 and boxplots are displayed in Figure 27.

Table 19

Means and Standard Deviations of District Categories by Compensation Score

Districts	N	M	SD
1 District	116	15.07	2.67
2 Districts	39	14.77	2.80
3 Districts	25	15.80	3.72
4 or More Districts	30	15.17	3.61

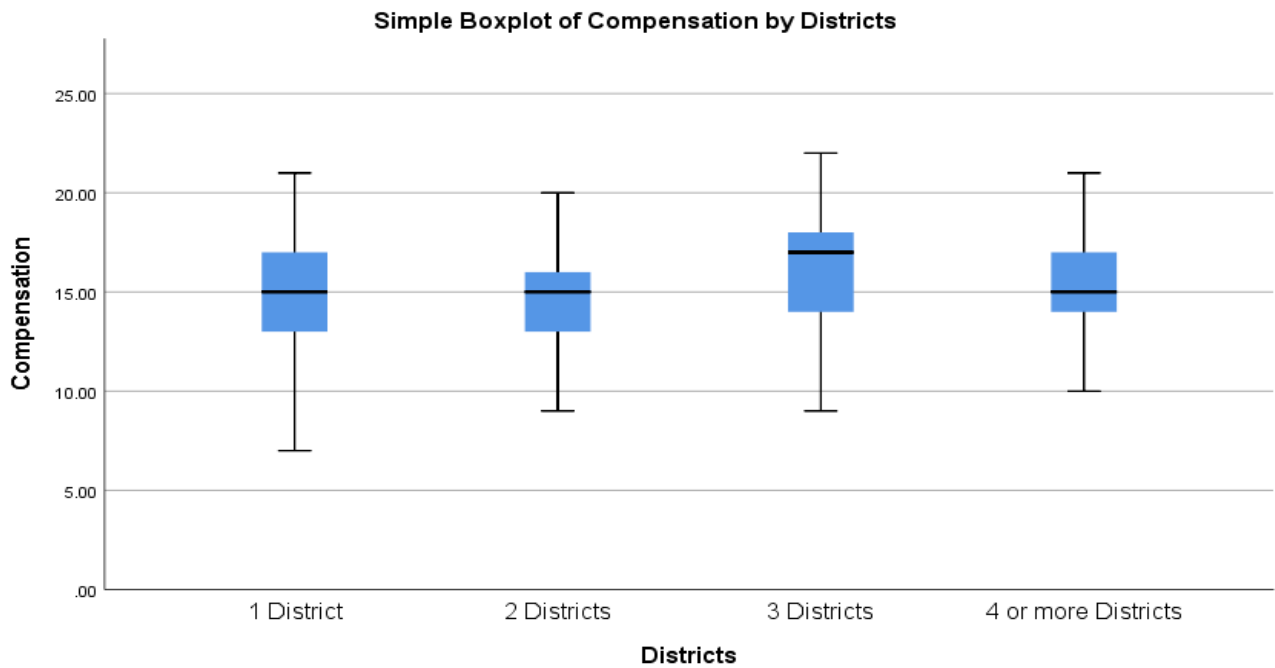


Figure 27. Boxplot of compensation scores by number of districts taught in.

Ho5₄: There are no significant differences in the mean scores of PK-12 teachers for Dimension 4 (Leadership) among the number of school districts categories (1 district, 2 districts, 3 districts, or 4 or more districts).

A one-way analysis of variance (ANOVA) was conducted to evaluate the relationship between the number of different school districts where a teacher has taught in his or her career and the retention dimension (leadership). The factor variable was the number of school districts where a teacher had taught: 1 district, 2 districts, 3 districts, or 4 or more districts. The dependent variable was the leadership scores derived from the teacher retention survey. The ANOVA was not significant, $F(3, 206) = .23, p = .874$. Therefore, the null hypothesis was retained based on the leadership dimension. The strength of the relationship between the number of districts where teachers have taught and the leadership factor as assessed by η^2 was small ($<.01$). The results indicate that the leadership factor score was not significantly related to number of districts where teachers have taught. The means and standard deviations for the number of districts where teachers have taught are reported in Table 20 and boxplots are displayed in Figure 28.

Table 20

Means and Standard Deviations of District Categories by Leadership Score

Districts	N	M	SD
1 District	116	11.96	4.50
2 Districts	39	11.72	4.33
3 Districts	25	12.14	4.83
4 or More Districts	30	11.27	4.59

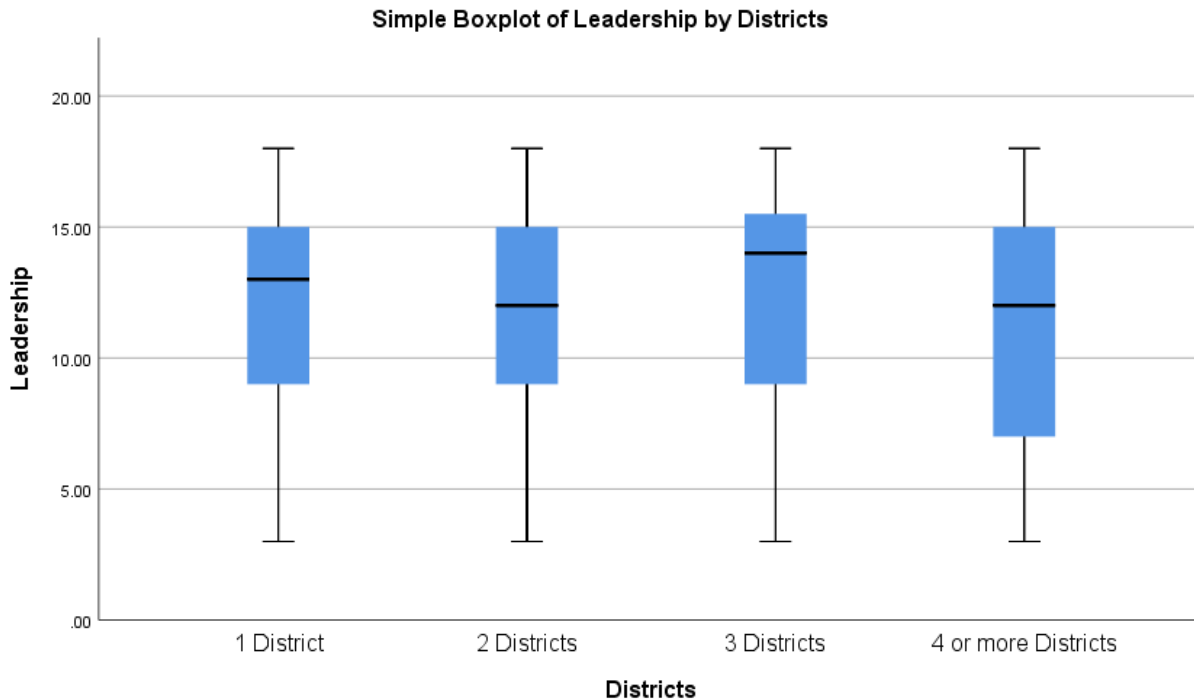


Figure 28. Boxplot of leadership scores by number of districts taught in.

Ho5₅: There are no significant differences in the mean scores of PK-12 teachers for Dimension 5 (Evaluation) among the number of school districts categories (1 district, 2 districts, 3 districts, or 4 or more districts).

A one-way analysis of variance (ANOVA) was conducted to evaluate the relationship between the number of different school districts where a teacher has taught in his or her career and the retention dimension (evaluation). The factor variable was the number of school districts where a teacher had taught: 1 district, 2 districts, 3 districts, or 4 or more districts. The dependent variable was the evaluation scores derived from the teacher retention survey. The ANOVA was not significant, $F(3, 206) = .126, p = .289$. Therefore, the null hypothesis was retained based on the evaluation dimension. The strength of the relationship between the number of districts where teachers have taught and the evaluation factor as assessed by η^2 was small (.02). The results indicate that the evaluation factor score was not significantly related

to number of districts where teachers have taught. The means and standard deviations for the number of districts where teachers have taught are reported in Table 21 and boxplots are displayed in Figure 29.

Table 21

Means and Standard Deviations of District Categories by Evaluation Score

Districts	N	M	SD
1 District	116	9.77	2.91
2 Districts	39	10.67	2.40
3 Districts	25	10.38	3.17
4 or More Districts	30	9.67	2.82

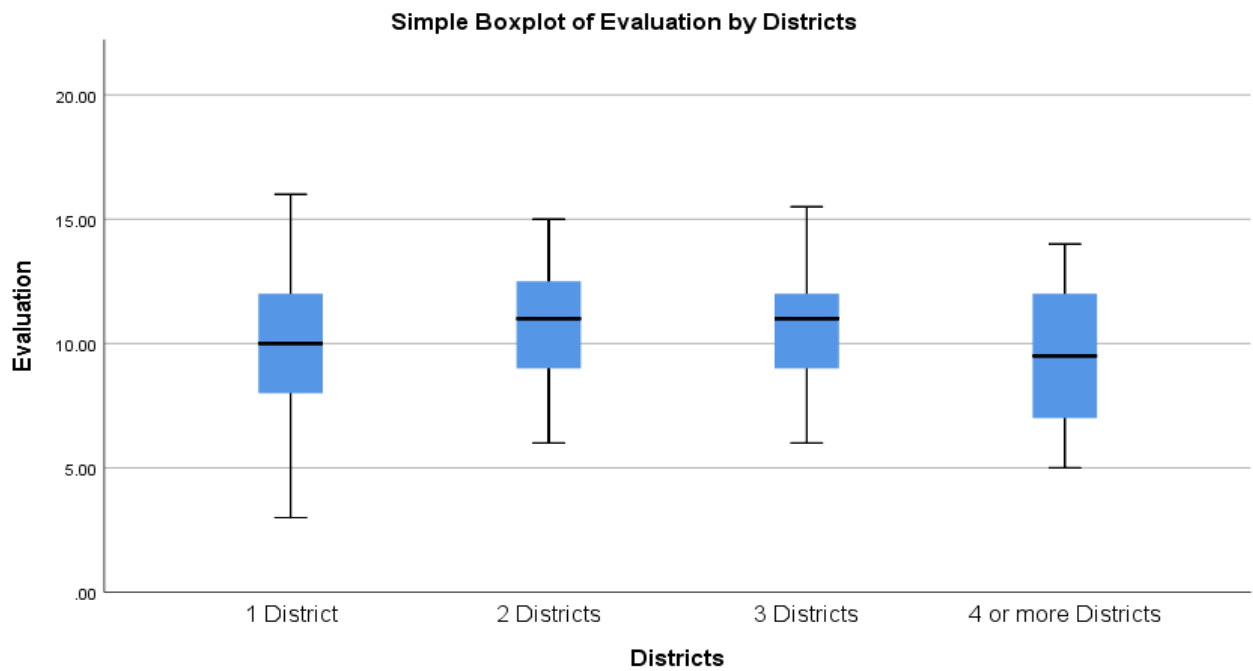


Figure 29. Boxplot of evaluation scores by number of districts taught in.

Ho5₆: There are no significant differences in the mean scores of PK-12 teachers for Dimension 6 (Mentorship) among the number of school districts categories (1 district, 2 districts, 3 districts, or 4 or more districts).

A one-way analysis of variance (ANOVA) was conducted to evaluate the relationship between the number of different school districts where a teacher has taught in his or her career and the retention dimension (mentorship). The factor variable was the number of school districts where a teacher had taught: 1 district, 2 districts, 3 districts, or 4 or more districts. The dependent variable was the mentorship scores derived from the teacher retention survey. The ANOVA was not significant, $F(3, 206) = .90, p = .445$. Therefore, the null hypothesis was retained based on the mentorship dimension. The strength of the relationship between the number of districts where teachers have taught and the mentorship factor as assessed by η^2 was small (.01). The results indicate that the mentorship factor score was not significantly related to number of districts where teachers have taught. The means and standard deviations for the number of districts where teachers have taught are reported in Table 22 and boxplots are displayed in Figure 30.

Table 22

Means and Standard Deviations of District Categories by Mentorship Score

Districts	N	M	SD
1 District	116	7.28	1.99
2 Districts	39	7.31	1.91
3 Districts	25	7.04	2.23
4 or More Districts	30	6.63	2.27

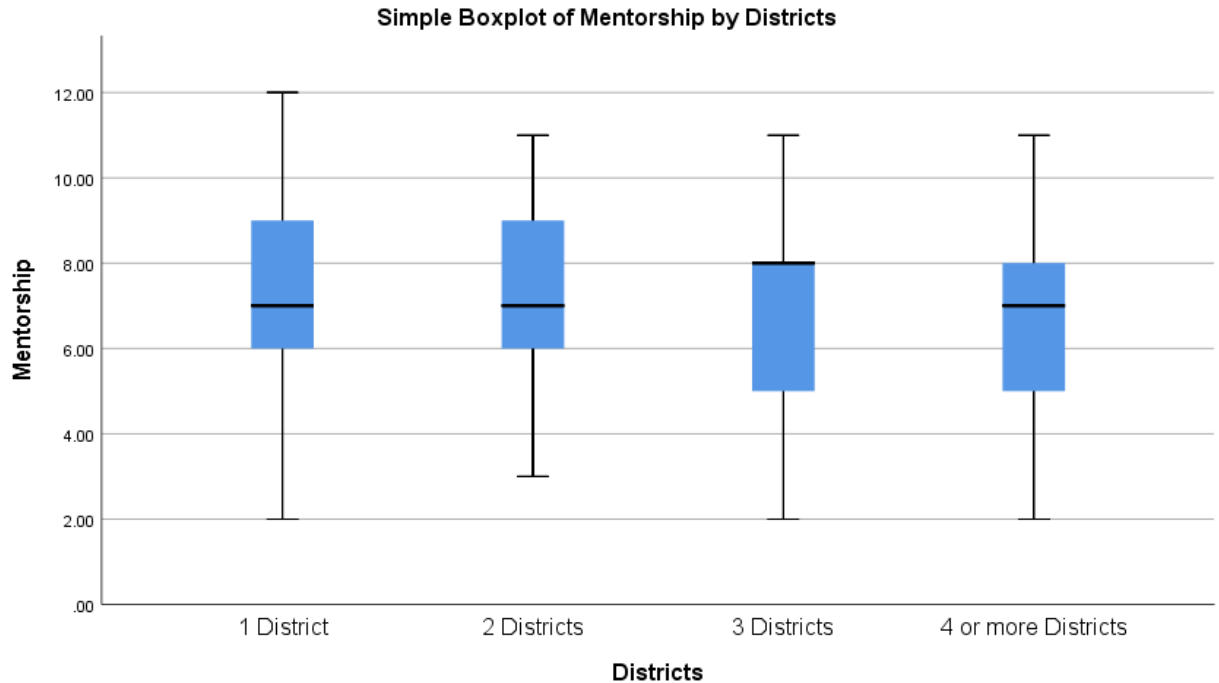


Figure 30. Boxplot of mentorship scores by number of districts taught in.

Analysis of Research Question 6

Research Question 6: Is there a significant difference in the mean scores of PK-12 teachers for the six dimensions of the Teacher Retention Survey among the areas of certification categories (elementary education, secondary education, or multiple certifications)?

H_{061} : There are no significant differences in the mean scores of PK-12 teachers for Dimension 1 (Work Environment) among the areas of certification categories (elementary education, secondary education, or multiple certifications).

A one-way analysis of variance (ANOVA) was conducted to evaluate the relationship between certification types and the retention dimension (work environment). The factor variable was the certification type for PK-12 teachers: Elementary Education, Secondary Education, or Multiple Certifications. The dependent variable was the work environment scores derived from the teacher retention survey. The ANOVA was not significant, $F(2, 207)$

= 1.54, $p = .218$. Therefore, the null hypothesis was retained based on the work environment dimension. The strength of the relationship between the certification type and the work environment factor as assessed by η^2 was small (.02). The results indicate that the work environment factor score was not significantly related to certification type. The means and standard deviations for the different teachers' certification type are reported in Table 23 and boxplots are displayed in Figure 31.

Table 23

Means and Standard Deviations of Certification Type by Work Environment Score

Certification Type	N	M	SD
Elementary	113	24.90	4.10
Secondary	41	23.84	3.87
Multiple	56	25.28	4.23

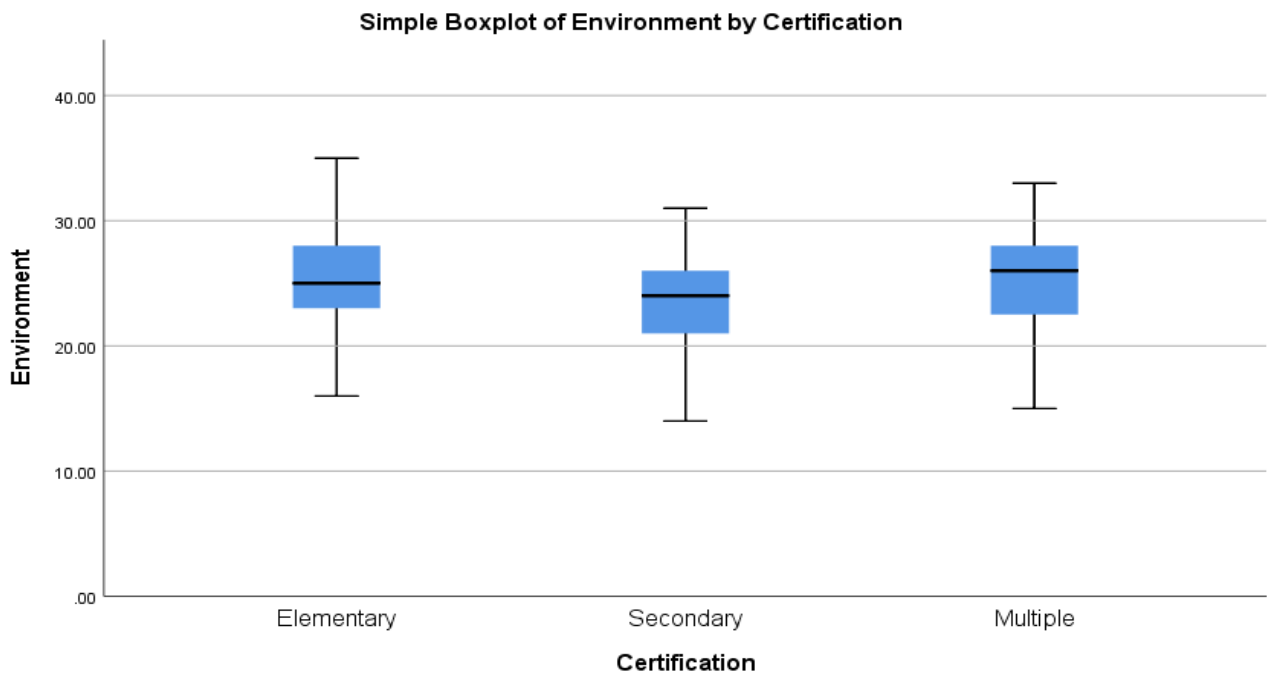


Figure 31. Boxplot of work environment scores by certification type.

Ho62: There are no significant differences in the mean scores of PK-12 teachers for Dimension 2 (Fit) among the areas of certification categories (elementary education, secondary education, or multiple certifications)

A one-way analysis of variance (ANOVA) was conducted to evaluate the relationship between certification types and the retention dimension (fit). The factor variable was the certification type for PK-12 teachers: Elementary Education, Secondary Education, or Multiple Certifications. The dependent variable was the fit scores derived from the teacher retention survey. The ANOVA was not significant, $F(2, 207) = 1.51, p = .224$. Therefore, the null hypothesis was retained based on the fit dimension. The strength of the relationship between the certification type and the fit factor as assessed by η^2 was small (.01). The results indicate that the fit factor score was not significantly related to certification type. The means and standard deviations for the different teachers' certification type are reported in Table 24 and boxplots are displayed in Figure 32.

Table 24

Means and Standard Deviations of Certification Type by Fit Score

Certification Type	N	M	SD
Elementary	113	28.27	4.24
Secondary	41	26.90	4.40
Multiple	56	27.83	4.51

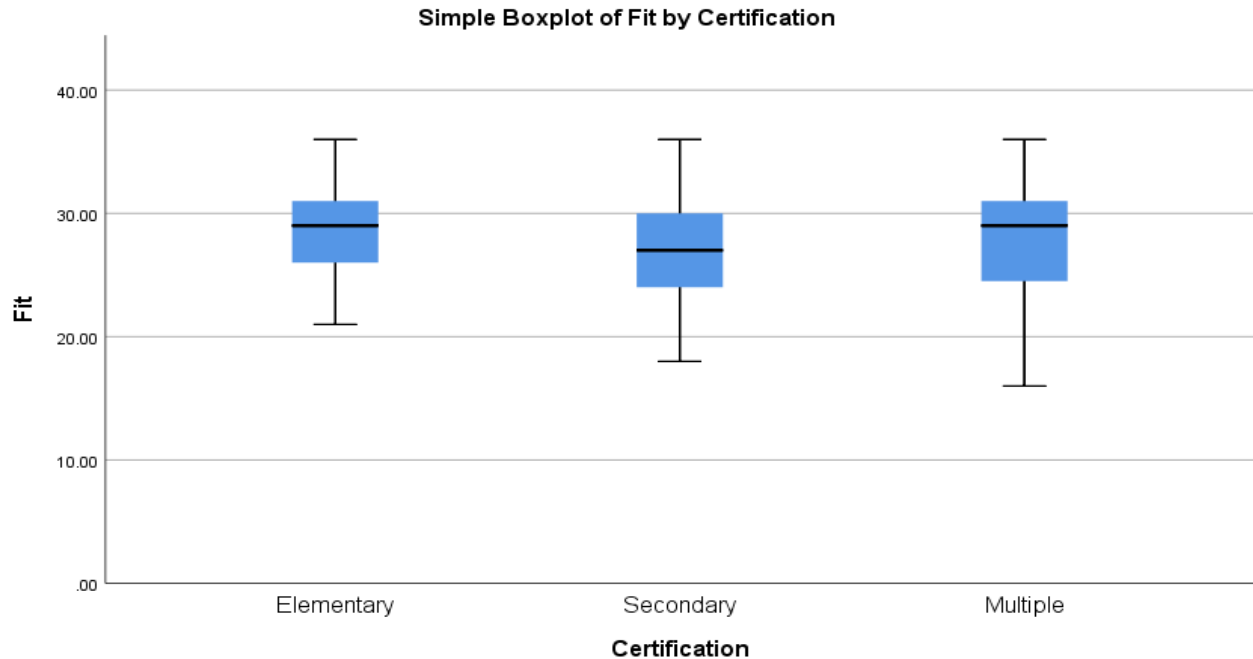


Figure 32. Boxplot of fit scores by certification type.

H_{063} : There are no significant differences in the mean scores of PK-12 teachers for Dimension 3 (Compensation) among the areas of certification categories (Elementary Education, Secondary Education, or Multiple Certifications).

A one-way analysis of variance (ANOVA) was conducted to evaluate the relationship between certification types and the retention dimension (compensation). The factor variable was the certification type for PK-12 teachers: Elementary Education, Secondary Education, or Multiple Certifications. The dependent variable was the compensation scores derived from the teacher retention survey. The ANOVA was not significant, $F(2, 207) = 2.20, p = .113$. Therefore, the null hypothesis was retained based on the compensation dimension. The strength of the relationship between the certification type and the compensation factor as assessed by η^2 was small (.02). The results indicate that the compensation factor score was not significantly related to certification type. The means and standard deviations for the

different teachers' certification type are reported in Table 25 and boxplots are displayed in Figure 33.

Table 25

Means and Standard Deviations of Certification Type by Compensation Score

Certification Type	N	M	SD
Elementary	113	15.50	2.76
Secondary	41	14.43	3.05
Multiple	56	14.89	3.27

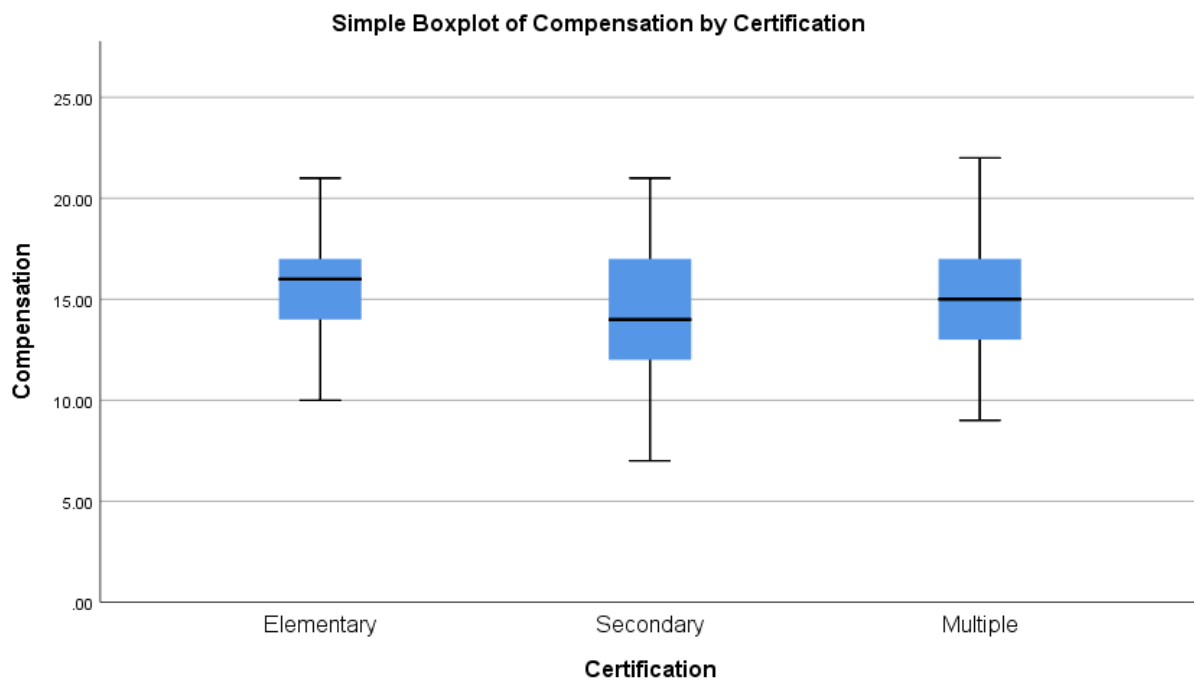


Figure 33. Boxplot of compensation scores by certification type.

Ho6₄: There are no significant differences in the mean scores of PK-12 teachers for Dimension 4 (Leadership) among the areas of certification categories (elementary education, secondary education, or multiple certifications).

A one-way analysis of variance (ANOVA) was conducted to evaluate the relationship between certification types and the retention dimension (leadership). The factor

variable was the certification type for PK-12 teachers: Elementary Education, Secondary Education, or Multiple Certifications. The dependent variable was the leadership scores derived from the teacher retention survey. The ANOVA was significant, $F(2, 207) = 8.57, p = <.001$. Therefore, the null hypothesis was rejected based on the leadership dimension. The strength of the relationship between the certification type and the compensation factor as assessed by η^2 was medium (.08). The results indicate that the leadership factor score was significantly related to certification type.

Because the overall F test was significant, post hoc multiple comparisons were conducted to evaluate pairwise differences among the means of the four groups. A Tukey procedure was selected for the multiple comparisons because equal variances were assumed. There was a significant difference in the means between the groups of teachers with Elementary certification and Secondary certification ($p = <.001$) and groups of teachers with Secondary certification and Multiple certifications ($p = .012$). However, there was not a significant difference between the groups of teachers with Elementary certification and the group with multiple certifications. It appears that teachers with Secondary certification rated the leadership dimension much lower on the Teacher Retention Survey compared to the other groups of teachers. Teachers with Secondary certification seemed to perceive that their school's leadership was not as effective at providing assistance, making interpersonal connections, and supporting their development as teachers with other certification types. The means and standard deviations for the different teachers' certification type are reported in Table 26, and the 95% confidence intervals for the pairwise differences are displayed in Table 27. The boxplots are presented in Figure 34.

Table 26

Means and Standard Deviations of Teachers' Certification by Leadership Score

Certification Type	N	M	SD
Elementary	113	12.66	4.41
Secondary	41	9.39	4.15
Multiple	56	11.96	4.34

Table 27

95% Confidence Intervals of Pairwise Differences of Teacher Certification Type

Teacher Certification Type	Secondary	Multiple
Elementary	[1.40, 5.14]*	[-.97, 2.38]
Secondary		[-4.7, -.46]*

*Significant at .05.

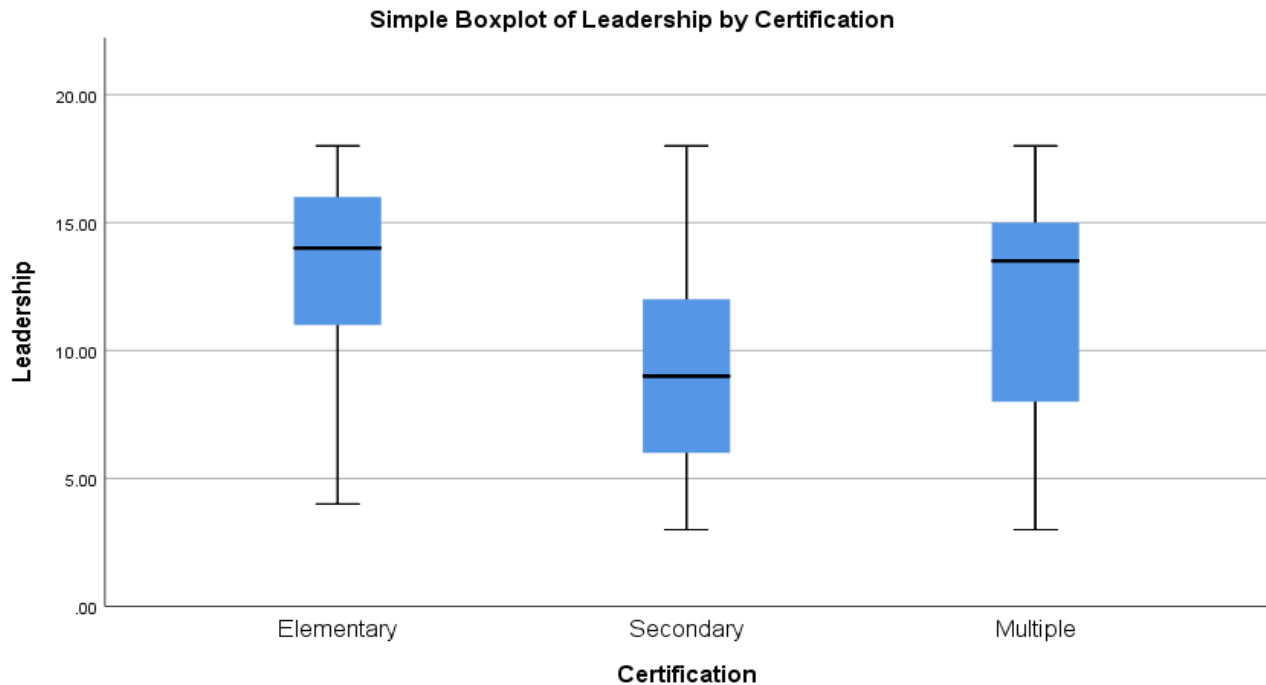


Figure 34. Boxplot of leadership scores by certification type.

H_0 : There are no significant differences in the mean scores of PK-12 teachers for Dimension 5 (Evaluation) among the areas of certification categories (Elementary Education, Secondary Education, or Multiple Certifications).

A one-way analysis of variance (ANOVA) was conducted to evaluate the relationship between certification types and the retention dimension (evaluation). The factor variable was the certification type for PK-12 teachers: Elementary Education, Secondary Education, or Multiple Certifications. The dependent variable was the evaluation scores derived from the teacher retention survey. The ANOVA was significant, $F(2, 207) = 8.50, p = <.001$.

Therefore, the null hypothesis was rejected based on the evaluation dimension. The strength of the relationship between the certification type and the evaluation factor as assessed by η^2 was medium (.08). The results indicate that the evaluation factor score was significantly related to certification type.

Because the overall *F* test was significant, post hoc multiple comparisons were conducted to evaluate pairwise differences among the means of the four groups. A Tukey procedure was selected for the multiple comparisons because equal variances were assumed. There was a significant difference in the means between the groups of teachers with Elementary certification and Secondary certification ($p = <.001$). However, there were not significant differences between Elementary and Multiple or Secondary and Multiple groups. It appears that the group with Elementary certification found the evaluation process more beneficial than the group with Secondary certification. The means and standard deviations for the different teachers' certification type are reported in Table 28, and the 95% confidence intervals for the pairwise differences are displayed in Table 29. The boxplots are presented in Figure 35.

Table 28

Means and Standard Deviations of Teachers' Certification by Evaluation Score

Certification Type	N	M	SD
Elementary	113	10.61	2.89
Secondary	41	8.56	2.35
Multiple	56	9.80	2.74

Table 29

95% Confidence Intervals of Pairwise Differences of Teacher Certification Type

Teacher Certification Type	Secondary	Multiple
Elementary	[.86, 3.23]*	[-.26, 1.86]
Secondary		[-2.58, .09]

*Significant at .05.

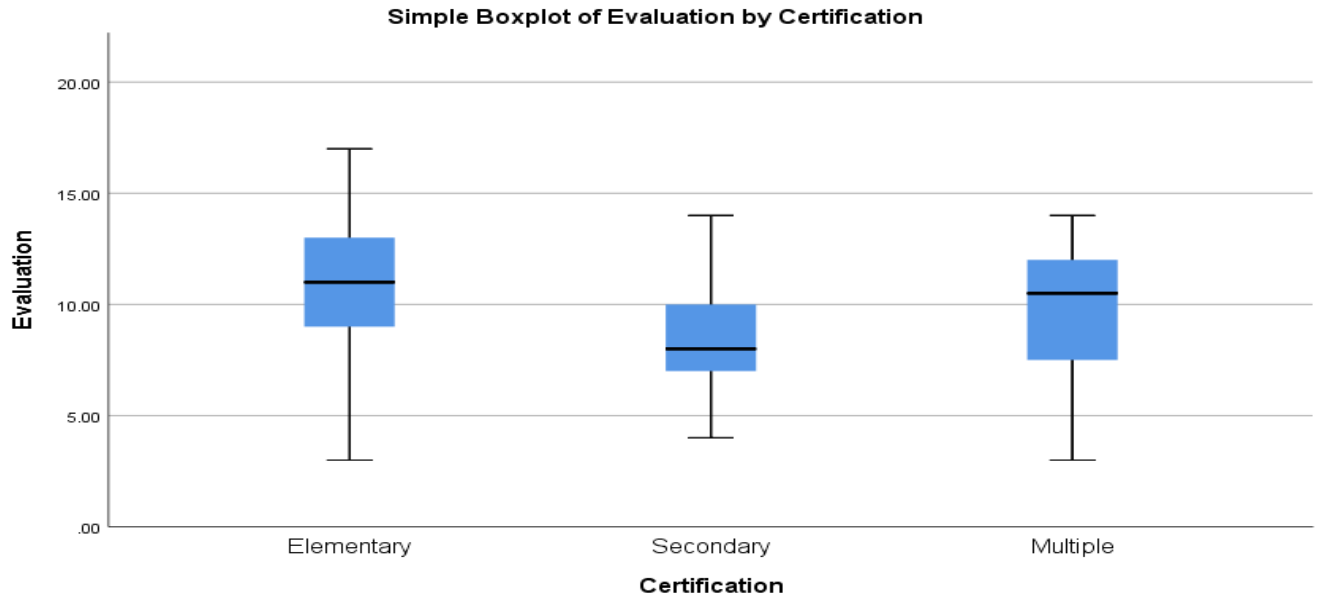


Figure 35. Boxplot of evaluation scores by certification type.

Ho₆: There are no significant differences in the mean scores of PK-12 teachers for Dimension 6 (Mentorship) among the areas of certification categories (Elementary Education, Secondary Education, or Multiple Certifications).

A one-way analysis of variance (ANOVA) was conducted to evaluate the relationship between certification types and the retention dimension (mentorship). The factor variable was the certification type for PK-12 teachers: Elementary Education, Secondary Education, or Multiple Certifications. The dependent variable was the mentorship scores derived from the teacher retention survey. The ANOVA was not significant, $F(2, 207) = .32, p = .729$.

Therefore, the null hypothesis was retained based on the mentorship dimension. The strength of the relationship between the certification type and the mentorship factor as assessed by η^2 was small ($<.01$). The results indicate that the mentorship factor score was not significantly related to certification type. The means and standard deviations for the different teachers' certification type are reported in Table 30 and boxplots are displayed in Figure 36.

Table 30

Means and Standard Deviations of Teachers' Certification by Mentorship Score

Certification Type	N	M	SD
Elementary	113	7.25	2.05
Secondary	41	7.18	2.39
Multiple	56	6.98	1.76

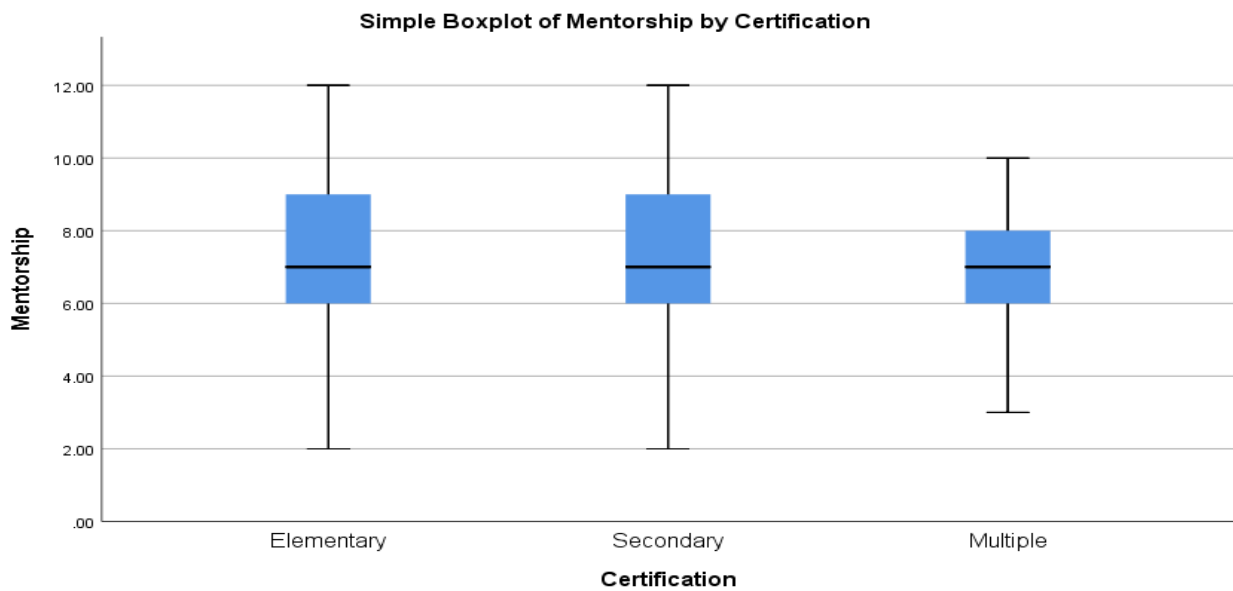


Figure 36. Boxplot of mentorship scores by certification type.

Analysis of Research Question 7

Research Question 7: Is there a significant difference in the mean scores of PK-12 teachers for the six dimensions of the Teacher Retention Survey between teachers who have a military affiliation (veterans themselves or have spouses that have previously or currently serving in the armed forces)?

Ho7₁: There are no significant differences in the mean scores of PK-12 teachers for Dimension 1 (Work Environment) between teachers that have a military affiliation and those that do not.

An independent-samples t test was conducted to evaluate whether the mean scores of PK-12 teachers with military affiliation were significantly different. The work environment score from the teacher retention survey was the test variable and the grouping variable was teachers' military affiliation (Yes or No). Levene's test for equality of variances was not significant, so equal variance was assumed. The test was not significant, $t(208) = -.38, p = .410$. Therefore, the null hypothesis was retained. Teachers with military affiliation ($M = 24.34, SD = 3.93$) tended to rate the work environment dimension about the same as teachers without a military affiliation ($M = 24.92, SD = 4.15$). The 95% confidence interval for the difference in means was -1.93 to $.79$. The η^2 index was $<.01$, which indicated a small effect size. Figure 37 shows the distributions for the two groups.

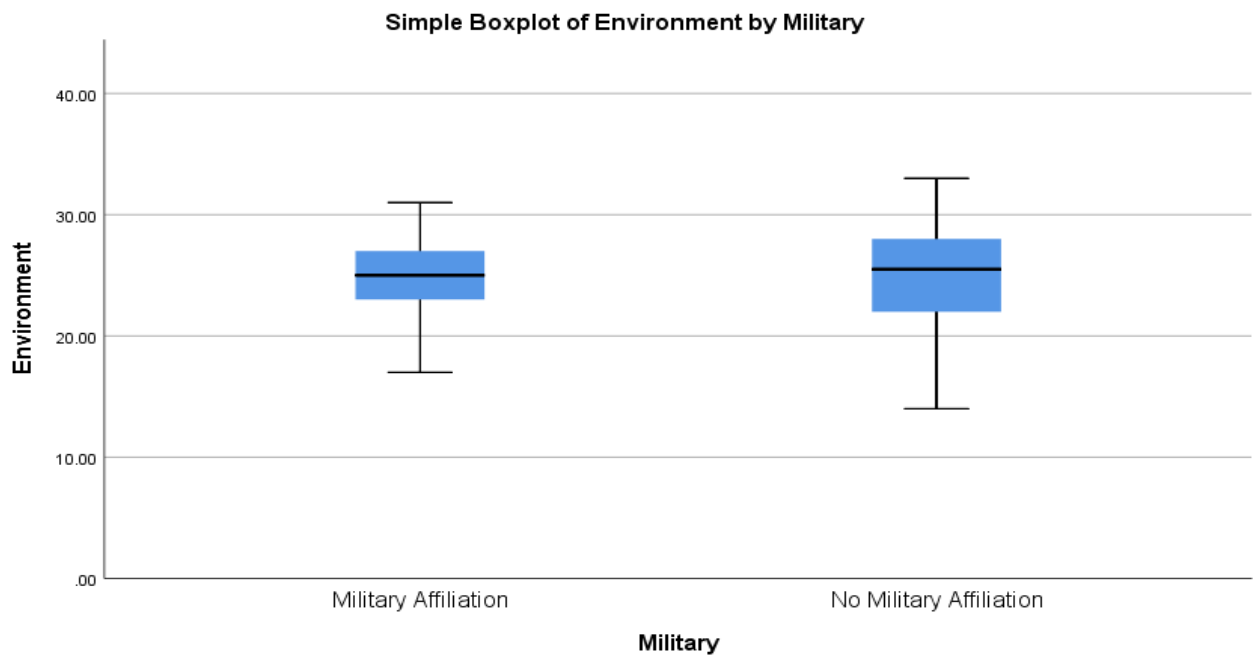


Figure 37. Boxplot of work environment scores by military affiliation.

Ho7₂: There are no significant differences in the mean scores of PK-12 teachers for Dimension 2 (Fit) between teachers that have a military affiliation and those that do not.

An independent-samples t test was conducted to evaluate whether the mean scores of PK-12 teachers with military affiliation were significantly different. The fit score from the teacher retention survey was the test variable and the grouping variable was teachers' military affiliation (Yes or No). Levene's test for equality of variances was not significant, so equal variance was assumed. The test was not significant, $t(208) = .02, p = .984$. Therefore, the null hypothesis was retained. Teachers with military affiliation ($M = 27.90, SD = 4.95$) tended to rate the fit dimension about the same as teachers without a military affiliation ($M = 27.88, SD = 4.19$). The 95% confidence interval for the difference in means was -1.43 to 1.46. The η^2 index was $<.01$, which indicated a small effect size. Figure 38 shows the distributions for the two groups.

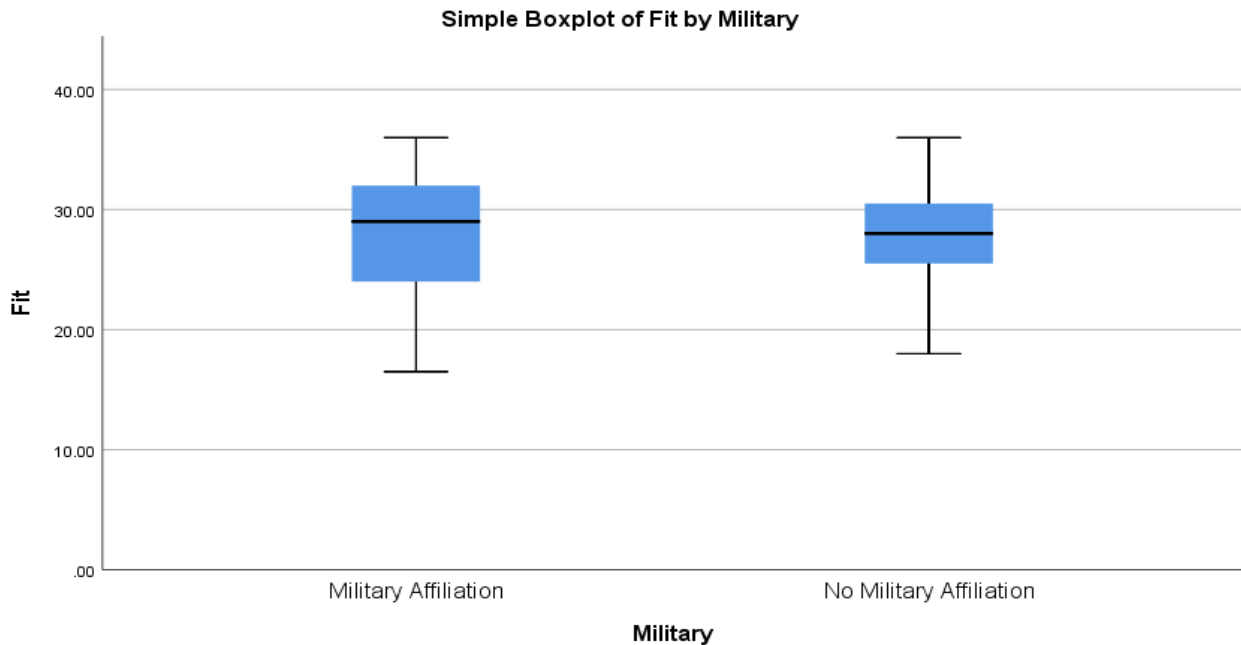


Figure 38. Boxplot of fit scores by military affiliation.

Ho7₃: There are no significant differences in the mean scores of PK-12 teachers for Dimension 3 (Compensation) between teachers that have a military affiliation and those that do not.

An independent-samples t test was conducted to evaluate whether the mean scores of PK-12 teachers with military affiliation were significantly different. The compensation score from the teacher retention survey was the test variable and the grouping variable was teachers' military affiliation (Yes or No). Levene's test for equality of variances was not significant, so equal variance was assumed. The test was not significant, $t(208) = -.46, p = .645$. Therefore, the null hypothesis was retained. Teachers with military affiliation ($M = 14.94, SD = 3.20$) tended to rate the compensation dimension about the same as teachers without a military affiliation ($M = 15.18, SD = 2.92$). The 95% confidence interval for the difference in means was -1.22 to .76. The η^2 index was $<.01$, which indicated a small effect size. Figure 39 shows the distributions for the two groups.

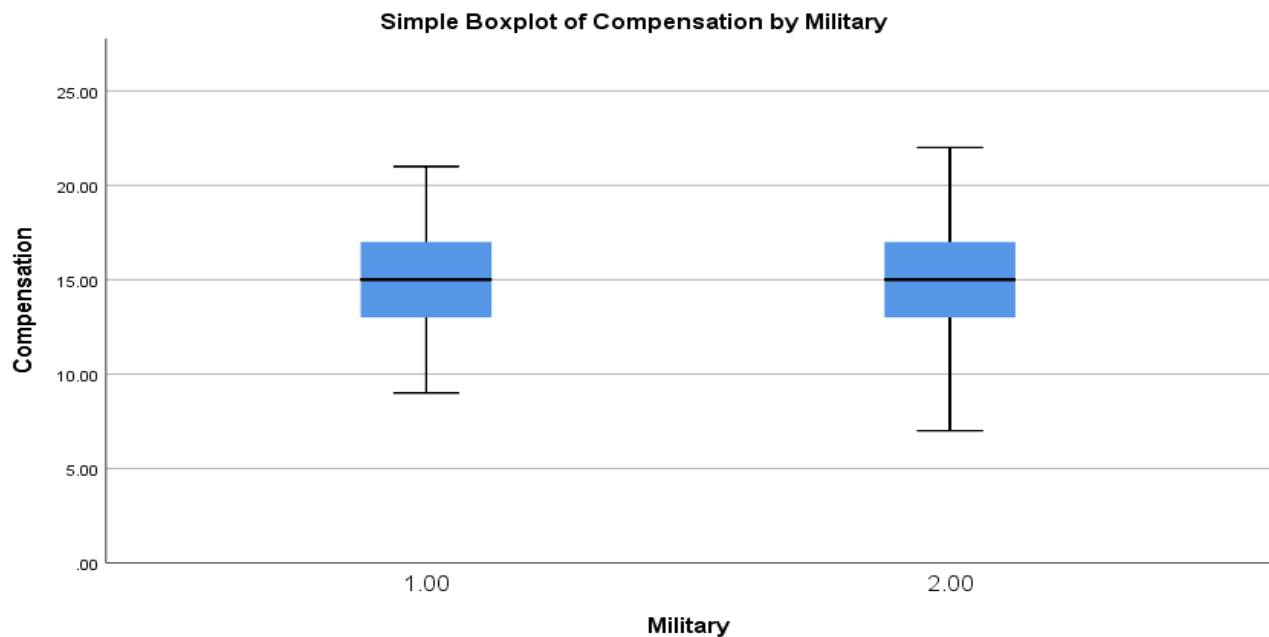


Figure 39. Boxplot of compensation scores by military affiliation.

Ho7₄: There are no significant differences in the mean scores of PK-12 teachers for Dimension 4 (Leadership) between teachers that have a military affiliation and those that do not.

An independent-samples t test was conducted to evaluate whether the mean scores of PK-12 teachers with military affiliation were significantly different. The leadership score from the teacher retention survey was the test variable and the grouping variable was teachers' military affiliation (Yes or No). Levene's test for equality of variances was not significant, so equal variance was assumed. The test was not significant, $t(208) = -.10, p = .923$. Therefore, the null hypothesis was retained. Teachers with military affiliation ($M = 11.78, SD = 4.71$) tended to rate the leadership dimension about the same as teachers without a military affiliation ($M = 11.85, SD = 4.45$). The 95% confidence interval for the difference in means was -1.57 to 1.42. The η^2 index was $<.01$, which indicated a small effect size. Figure 40 shows the distributions for the two groups.

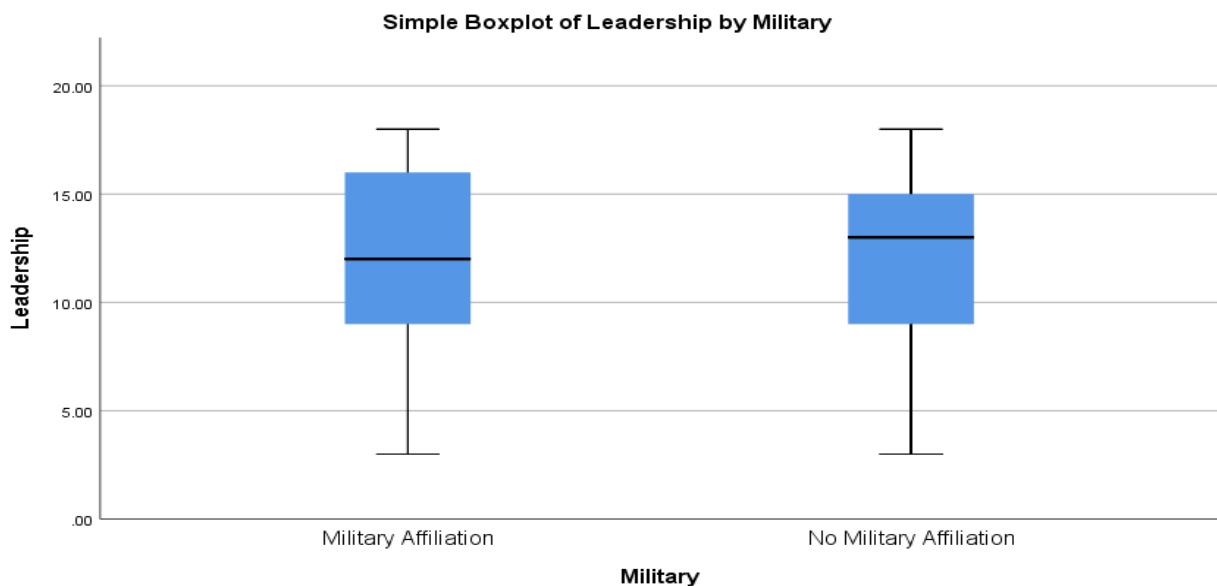


Figure 40. Boxplot of leadership scores by military affiliation.

Ho7₅: There are no significant differences in the mean scores of PK-12 teachers for Dimension 5 (Evaluation) between teachers that have a military affiliation and those that do not.

An independent-samples t test was conducted to evaluate whether the mean scores of PK-12 teachers with military affiliation were significantly different. The evaluation score from the teacher retention survey was the test variable and the grouping variable was teachers' military affiliation (Yes or No). Levene's test for equality of variances was not significant, so equal variance was assumed. The test was not significant, $t(208) = .88, p = .383$. Therefore, the null hypothesis was retained. Teachers with military affiliation ($M = 10.32, SD = 3.14$) tended to rate the evaluation dimension about the same as teachers without a military affiliation ($M = 9.90, SD = 2.77$). The 95% confidence interval for the difference in means was $-.53$ to 1.36 . The η^2 index was $<.01$, which indicated a small effect size. Figure 41 shows the distributions for the two groups.

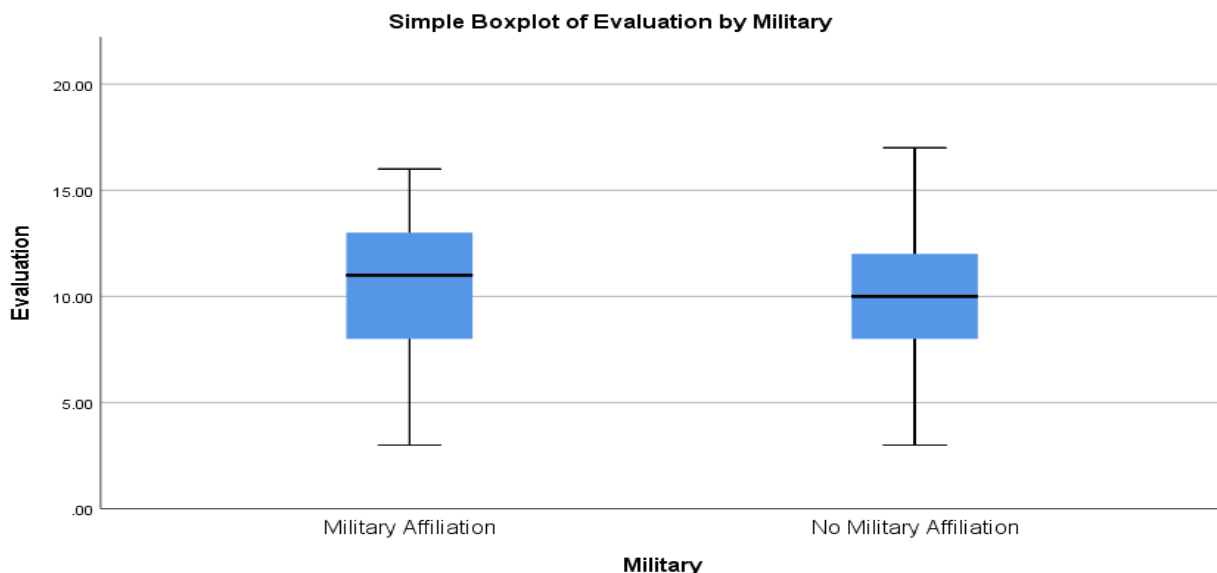


Figure 41. Boxplot of evaluation scores by military affiliation.

Ho7₆: There are no significant differences in the mean scores of PK-12 teachers for Dimension 6 (Mentorship) between teachers that have a military affiliation and those that do not.

An independent-samples t test was conducted to evaluate whether the mean scores of PK-12 teachers with military affiliation were significantly different. The mentorship score from the teacher retention survey was the test variable and the grouping variable was teachers' military affiliation (Yes or No). Levene's test for equality of variances was not significant, so equal variance was assumed. The test was not significant, $t(208) = .83, p = .406$. Therefore, the null hypothesis was retained. Teachers with military affiliation ($M = 7.39, SD = 2.03$) tended to rate the mentorship dimension about the same as teachers without a military affiliation ($M = 7.10, SD = 2.05$). The 95% confidence interval for the difference in means was $-.39$ to $.96$. The η^2 index was $<.01$, which indicated a small effect size. Figure 42 shows the distributions for the two groups.

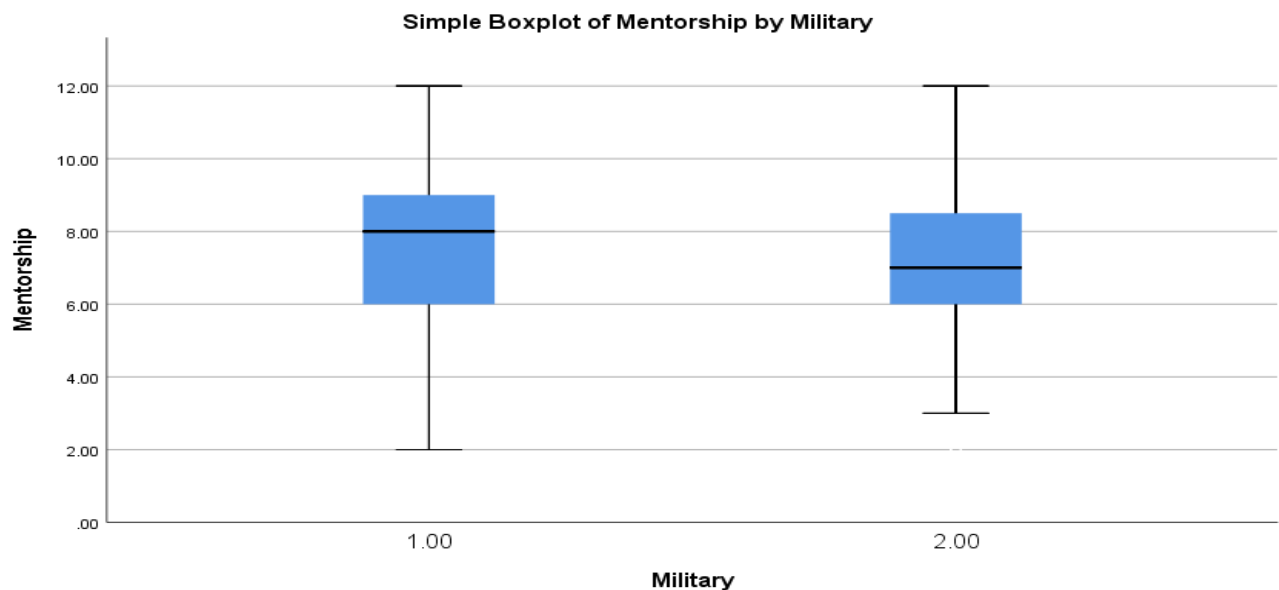


Figure 42. Boxplot of mentorship scores by military affiliation.

Analysis of Research Question 8

Research Question 8: Is there a significant difference in the mean scores of PK-12 teachers for the six dimensions of the Teacher Retention Survey among the career plans categories (continue to work as a teacher or plan to leave the teaching profession within 3 years)?

Ho8₁: There are no significant differences in the mean scores of PK-12 teachers for Dimension 1 (Work Environment) among the career plans categories (continue to work as a teacher or plan to leave the teaching profession within 3 years).

An independent-samples t test was conducted to evaluate whether the mean scores of PK-12 teachers with plans to remain in teaching and with plans to leave the teaching profession within 3 years were significantly different. The work environment score from the teacher retention survey was the test variable and the grouping variable was teachers' career plan (remain in teaching or leave teaching). Levene's test for equality of variances was not significant, so equal variance was assumed. The test was not significant, $t(208) = .11, p = .912$. Therefore, the null hypothesis was retained. Teachers planning to remain in the field ($M = 24.81, SD = 4.08$) tended to rate the work environment dimension about the same as teachers planning to leave the profession within 3 years ($M = 24.75, SD = 4.18$). The 95% confidence interval for the difference in means was -1.14 to 1.28. The η^2 index was $<.01$, which indicated a small effect size. Figure 43 shows the distributions for the two groups.

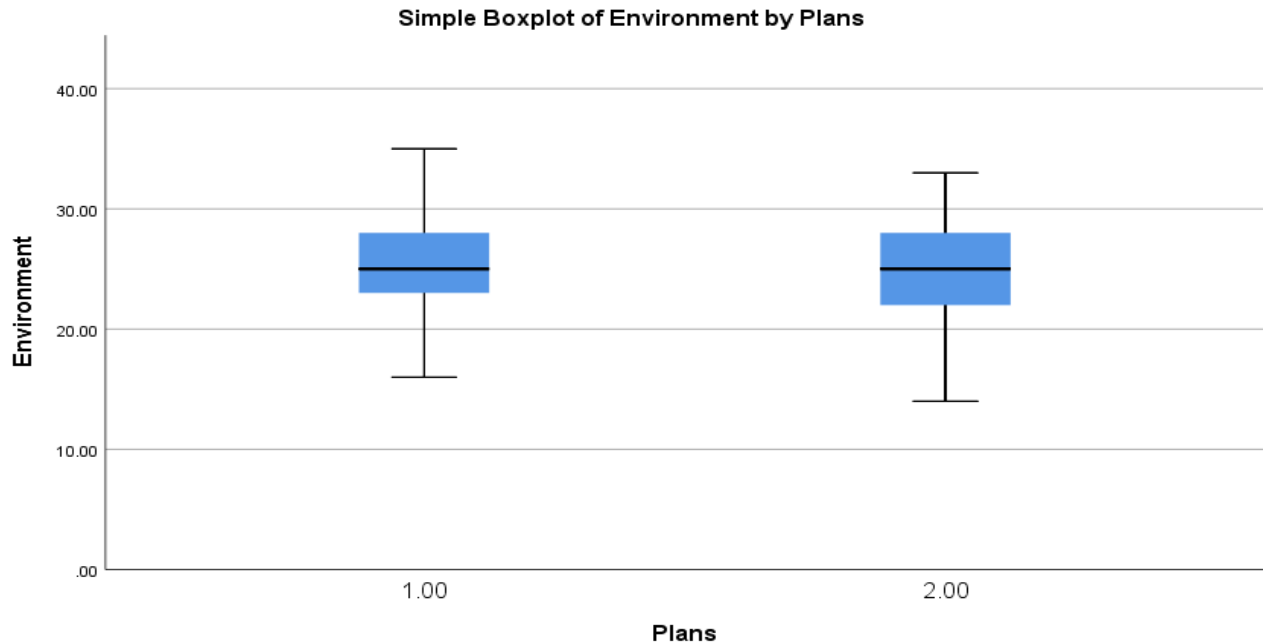


Figure 43. Boxplot of work environment by career plans.

Ho8₂: There are no significant differences in the mean scores of PK-12 teachers for Dimension 2 (Fit) among the career plans categories (continue to work as a teacher or plan to leave the teaching profession within 3 years).

An independent-samples t test was conducted to evaluate whether the mean scores of PK-12 teachers with plans to remain in teaching and with plans to leave the teaching profession within 3 years were significantly different. The fit score from the teacher retention survey was the test variable and the grouping variable was teachers' career plan (remain in teaching or leave teaching). Levene's test for equality of variances was not significant, so equal variance was assumed. The test was not significant, $t(208) = 1.73, p = .085$. Therefore, the null hypothesis was retained. Teachers planning to remain in the field ($M = 28.23, SD = 3.96$) tended to rate the fit dimension about the same as teachers planning to leave the profession within 3 years ($M = 27.12, SD = 5.07$). The 95% confidence interval for the

difference in means was -.16 to 2.39. The η^2 index was .01, which indicated a small effect size. Figure 44 shows the distributions for the two groups.

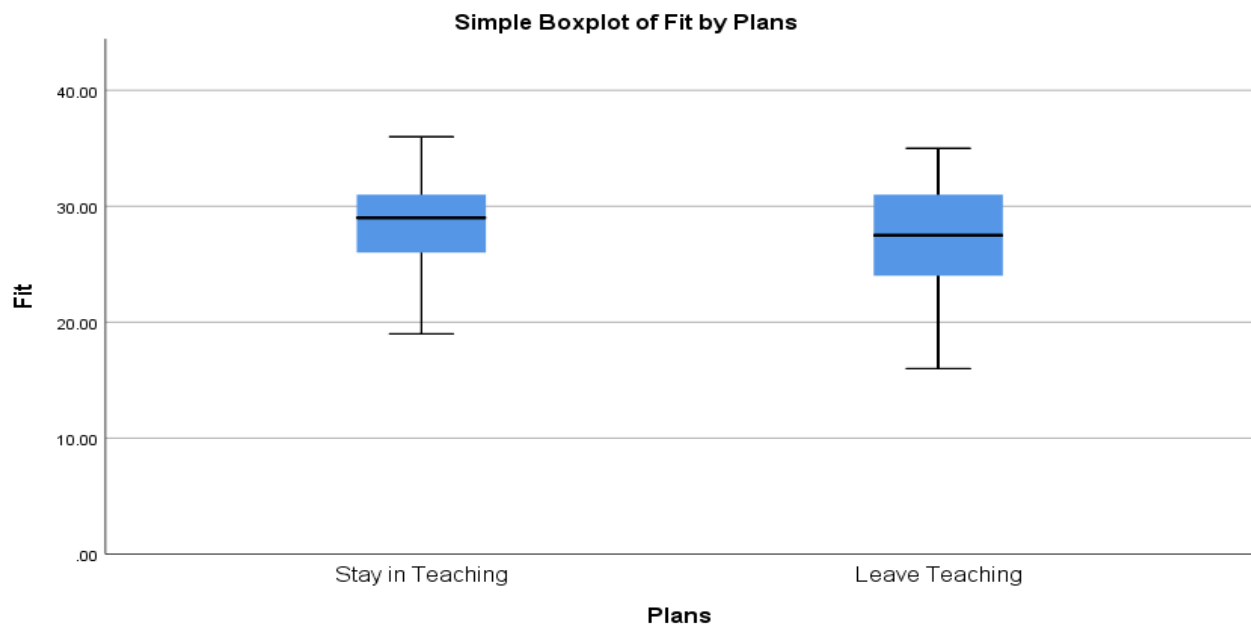


Figure 44. Boxplot of fit by career plans.

Ho8₃: There are no significant differences in the mean scores of PK-12 teachers for Dimension 3 (Compensation) among the career plans categories (continue to work as a teacher or plan to leave the teaching profession within 3 years).

An independent-samples t test was conducted to evaluate whether the mean scores of PK-12 teachers with plans to remain in teaching and with plans to leave the teaching profession within 3 years were significantly different. The compensation score from the teacher retention survey was the test variable and the grouping variable was teachers' career plan (remain in teaching or leave teaching). Levene's test for equality of variances was not significant, so equal variance was assumed. The test was not significant, $t(208) = 1.75$, $p = .082$. Therefore, the null hypothesis was retained. Teachers planning to remain in the field ($M = 15.37$, $SD = 2.94$) tended to rate the compensation dimension about the same as teachers

planning to leave the profession within 3 years ($M = 14.59, SD = 3.01$). The 95% confidence interval for the difference in means was $-.10$ to 1.64 . The η^2 index was $.01$, which indicated a small effect size. Figure 45 shows the distributions for the two groups.

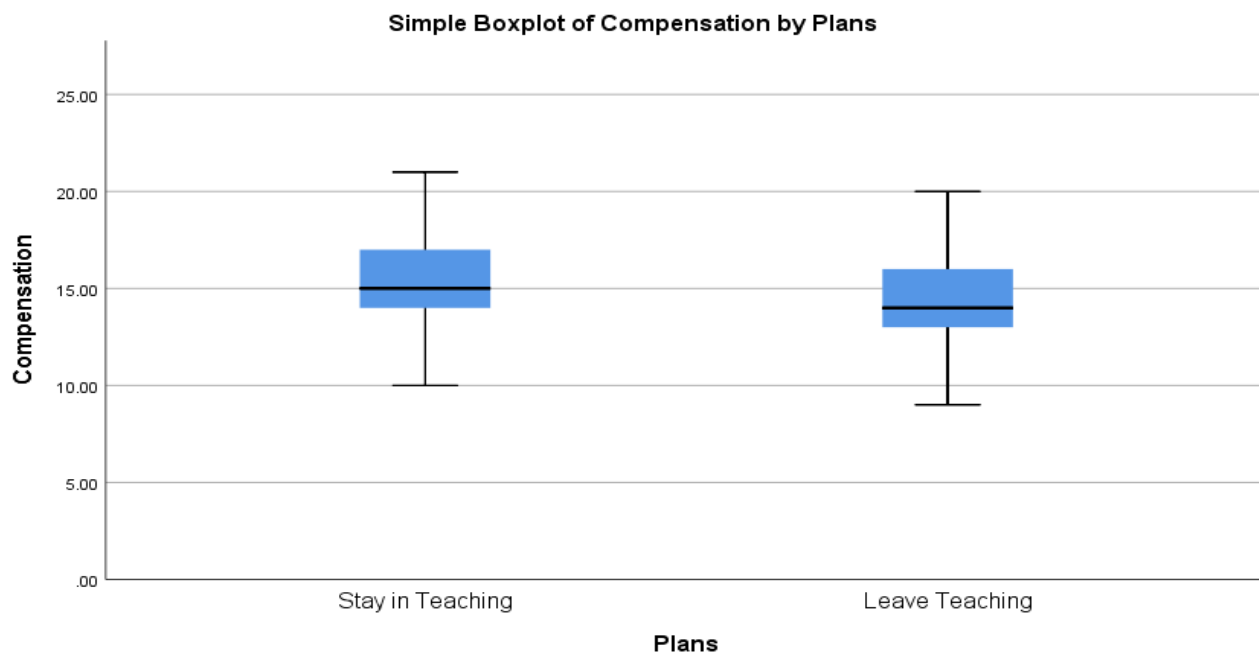


Figure 45. Boxplot of compensation by career plans.

Ho84: There are no significant differences in the mean scores of PK-12 teachers for Dimension 4 (Leadership) among the career plans categories (continue to work as a teacher or plan to leave the teaching profession within 3 years).

An independent-samples t test was conducted to evaluate whether the mean scores of PK-12 teachers with plans to remain in teaching and with plans to leave the teaching profession within 3 years were significantly different. The leadership score from the teacher retention survey was the test variable and the grouping variable was teachers' career plan (remain in teaching or leave teaching). Levene's test for equality of variances was not significant, so equal variance was assumed. The test was not significant, $t(208) = 1.48, p = .142$. Therefore, the null hypothesis was retained. Teachers planning to remain in the field (M

= 12.14, $SD = 4.47$) tended to rate the leadership dimension about the same as teachers planning to leave the profession within 3 years ($M = 11.15$, $SD = 4.51$). The 95% confidence interval for the difference in means was -.33 to 2.31. The η^2 index was .01, which indicated a small effect size. Figure 46 shows the distributions for the two groups.

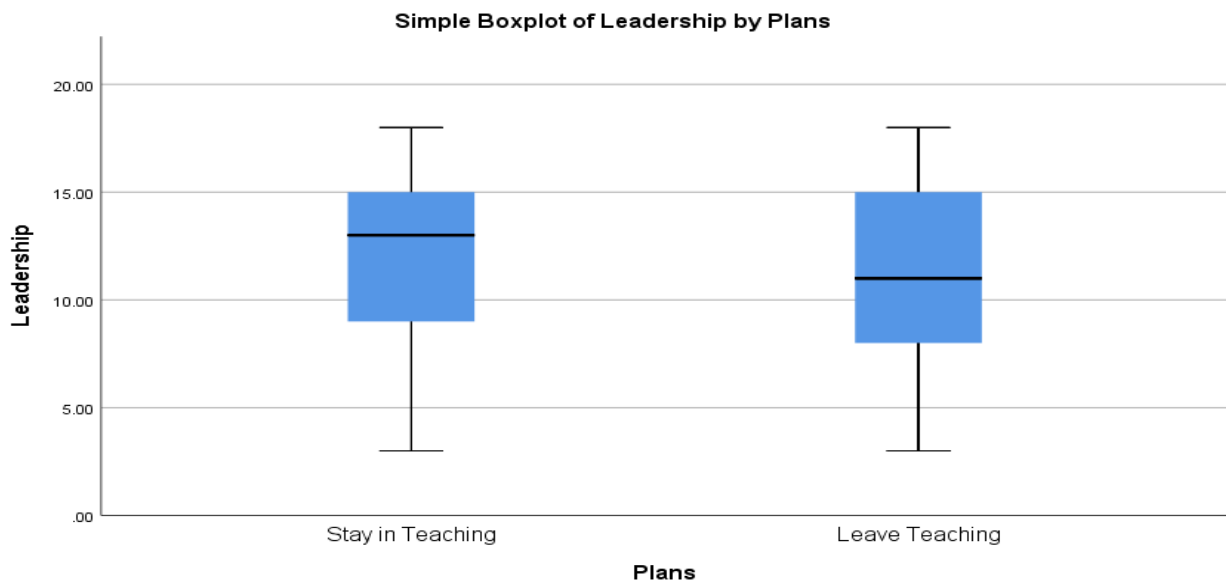


Figure 46. Boxplot of leadership by career plans.

H_{085} : There are no significant differences in the mean scores of PK-12 teachers for Dimension 5 (Evaluation) among the career plans categories (continue to work as a teacher or plan to leave the teaching profession within 3 years).

An independent-samples t test was conducted to evaluate whether the mean scores of PK-12 teachers with plans to remain in teaching and with plans to leave the teaching profession within 3 years were significantly different. The evaluation score from the teacher retention survey was the test variable and the grouping variable was teachers' career plan (remain in teaching or leave teaching). Levene's test for equality of variances was significant, so equal variance was not assumed. The test was significant, $t(208) = 3.22$, $p = .002$.

Therefore, the null hypothesis was rejected. Teachers planning to remain in the field ($M =$

10.43, $SD = 2.63$) tended to rate the evaluation dimension significantly higher than teachers planning to leave the profession within 3 years ($M = 9.02$, $SD = 3.08$). It appears that teachers planning to remain as teachers found that the evaluation process provided more benefit to their performance than those choosing to leave the profession. The 95% confidence interval for the difference in means was .54 to 2.29. The η^2 index was .05, which indicated a medium effect size. Figure 47 shows the distributions for the two groups.

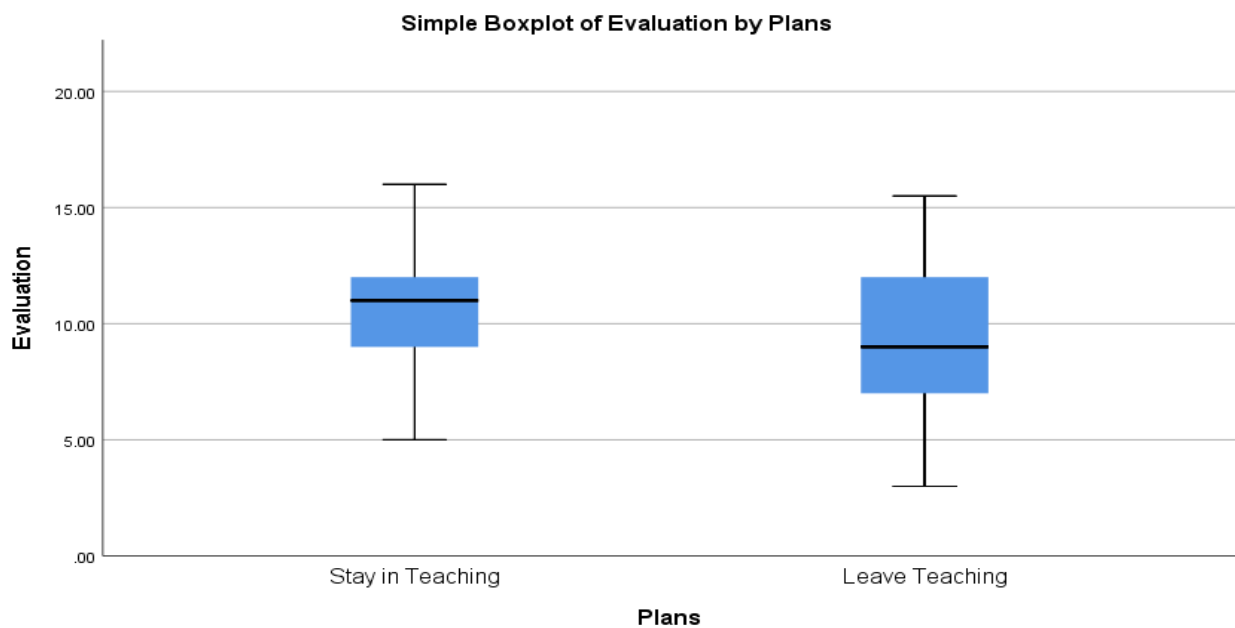


Figure 47. Boxplot of evaluation by career plans.

Ho8₆: There are no significant differences in the mean scores of PK-12 teachers for Dimension 6 (Mentorship) among the career plans categories (continue to work as a teacher or plan to leave the teaching profession within 3 years).

An independent-samples t test was conducted to evaluate whether the mean scores of PK-12 teachers with plans to remain in teaching and with plans to leave the teaching profession within 3 years were significantly different. The mentorship score from the teacher retention survey was the test variable and the grouping variable was teachers' career plan

(remain in teaching or leave teaching). Levene's test for equality of variances was significant, so equal variance was not assumed. The test was significant, $t(208) = 3.78, p = .001$.

Therefore, the null hypothesis was rejected. Teachers planning to remain in the field ($M = 7.54, SD = 1.80$) tended to rate the mentorship dimension significantly higher than teachers planning to leave the profession within 3 years ($M = 6.32, SD = 2.31$). It appears that teachers planning to remain as teachers found that the mentorship process provided more benefit to their performance than those choosing to leave the profession. The 95% confidence interval for the difference in means was .58 to 1.86. The η^2 index was .08, which indicated a medium effect size. Figure 48 shows the distributions for the two groups.

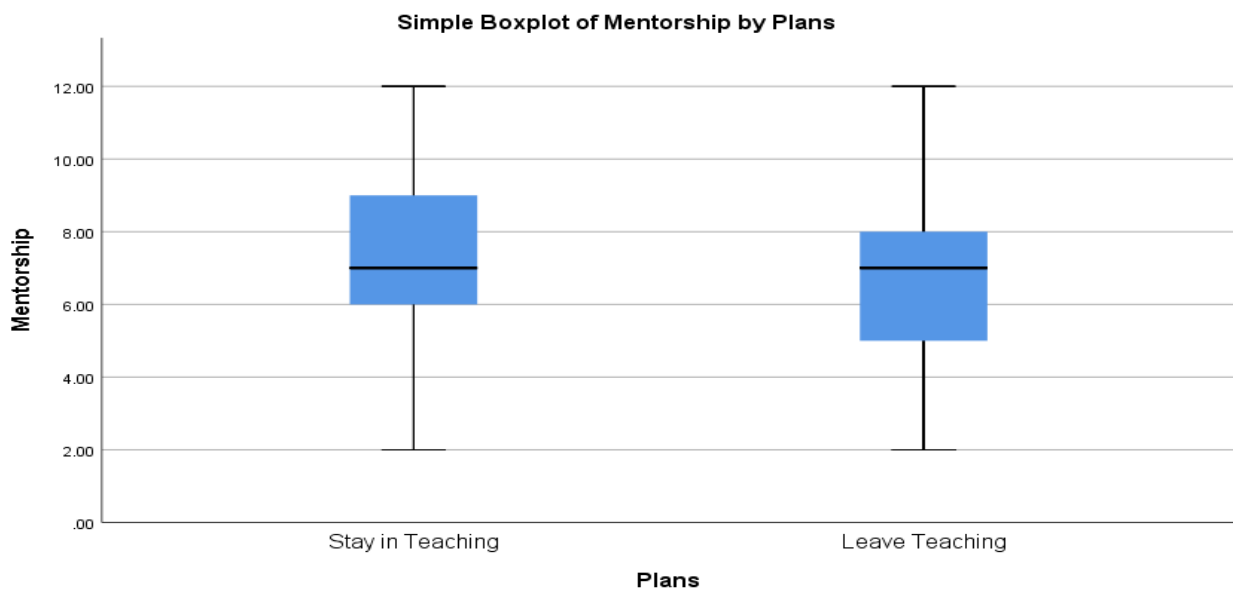


Figure 48. Boxplot of mentorship by career plans.

Analysis of Short Answer Questions

The Teacher Retention Survey contained three questions that allowed respondents to answer open-ended questions. The first question asked PK-12 teachers to identify the three most rewarding aspect of their job. The results of the most rewarding aspect of teaching is

displayed in Table 31. The second open-ended question asked PK-12 teachers to identify any condition that would prompt them to leave the teaching profession. The results for this question are displayed in Figure 49. The final question on the Teacher Retention Survey asked for PK-12 teachers to provide their opinion on what factors could be improved to have the most positive impact on teacher retention. The results and frequency of answers are provided in Figure 50.

Table 31

Responses to Most Rewarding Part of Teaching

Reward Source	Score	%
Student Growth	515	45.29
Relationships with Co-workers	175	15.39
Personal Growth	128	11.26
School Climate	114	10.03
Financial Security	82	7.21
Community Connection	47	4.13
Parents Connection	47	4.13
Students Connection	29	2.55
Total	1137	

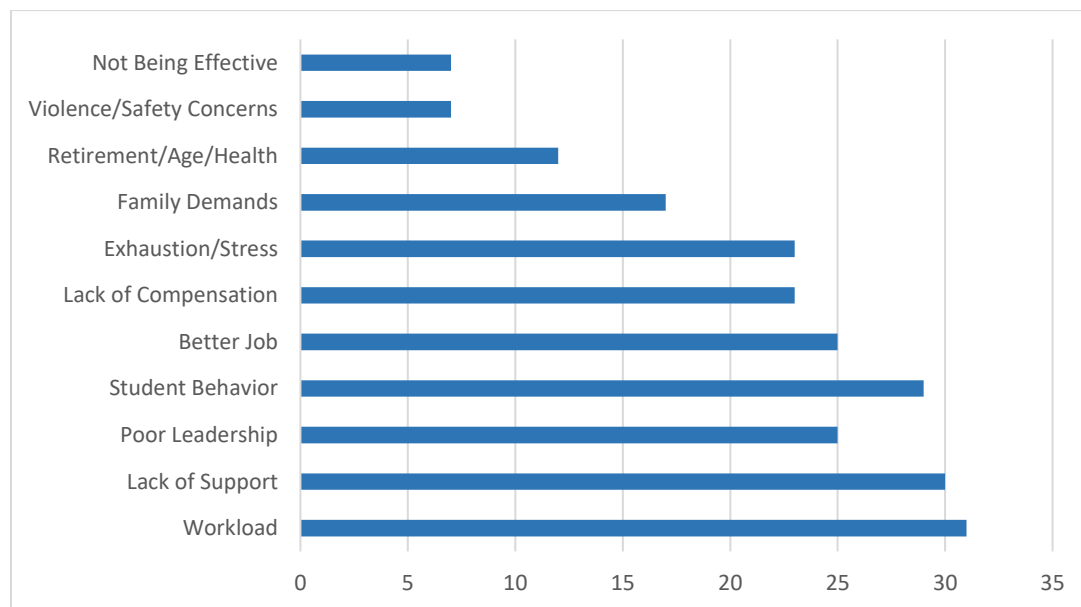


Figure 49. Reasons teacher would leave profession by frequency.

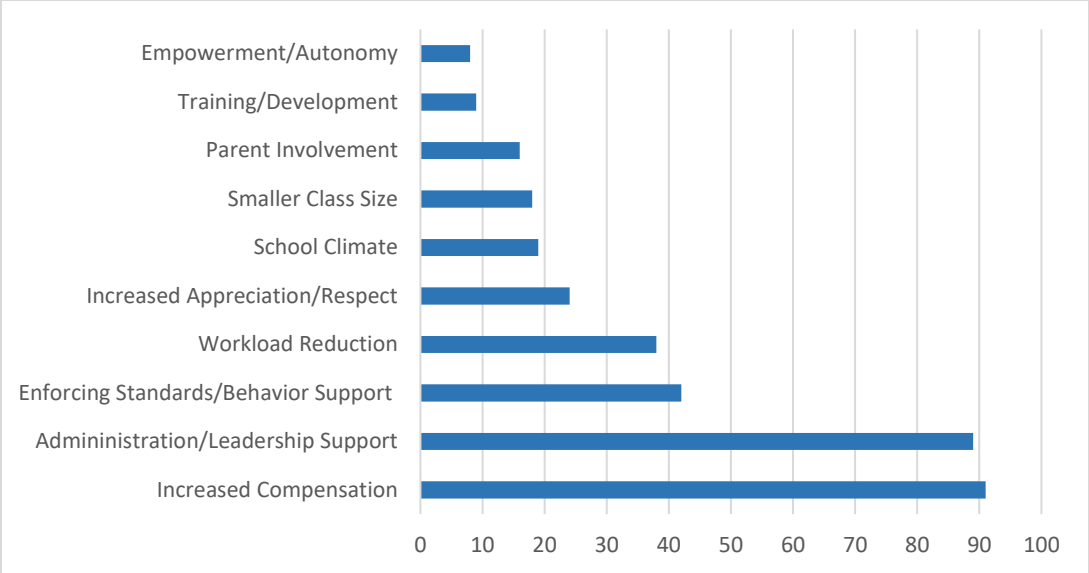


Figure 50. Teachers’ perceptions of factors that could have greatest impact on retention.

CHAPTER 5

SUMMARY OF FINDINGS, CONCLUSIONS, AND RECOMMENDATIONS

The purpose of this quantitative study was to determine the distinct factors that contribute to PK-12 teacher retention. This study was an examination of multiple factors, including work environment, fit, compensation and benefits, leadership, performance management system, peer support and mentoring, that contributed to the retention of PK-12 teachers with different levels of education, certifications, experience, career plans, and military affiliation. The questions on the Teacher Retention Survey used a Likert-type scale to measure teacher perceptions using terms: strongly agree (score of 6), agree (score of 5), slightly agree (score of 4), slightly disagree (score of 3), disagree (score of 2), and strongly disagree (score of 1). By identifying factors that contribute to teachers' decision to remain in the field, school leadership can attempt to make improvements to those factors to prevent voluntary attrition.

For this study, I surveyed the entire population of 704 current PK-12 teachers in a public unified school district located in central Kansas using a non-random sample method. The unified school district is comprised of 14 elementary schools (grades PK-5), two middle schools (grades 6-8), and one high school (grades 9-12). The unified school district is located adjacent to a large U.S. Army installation and supports a culturally diverse educational environment with a majority of the district's students being military-connected in some way. The survey was administered at the beginning of the 2019-2020 academic school year and resulted in 210 usable surveys collected with a 29.8% return rate.

The 210 respondents to the Teacher Retention Survey provided demographic information that allowed for distinct groupings including gender (85% female and 15% male), education (42% Bachelors and 58% Masters), experience (19% had 0-3 years, 26% had 4-8 years, and 55% had 9 or more years), and certification (Elementary, Secondary, and Multiple). Other groupings included the number of schools and number of districts where teachers had taught, whether they had a military affiliation, and their intentions of continuing to teach (69% of respondents) or to leave the profession within three years (31% of respondents).

Summary of the Findings

Whether there is a significant difference in the mean scores of PK-12 teachers for the six dimensions of the Teacher Retention Survey among the years of experience categories (0-3 years, 4-8 years, or 9 or more years) was addressed in Research Question 1. Based on the results of multiple ANOVA tests, there is a significant difference in the mean scores based on teachers' years of experience and how they perceive the dimensions of Fit, Evaluation, and Mentorship. In three instances, the null hypothesis was rejected.

Research Question 2 addressed whether there is a significant difference in the mean scores of PK-12 teachers for the six dimensions of the Teacher Retention Survey based on gender. Based on the results of multiple independent-samples t tests, there is a significant difference in the mean scores based on teachers' gender and how they perceive the dimensions of Leadership and Evaluation. In these two instances, the null hypothesis was rejected.

Research Question 3 addressed whether there is a significant difference in the mean scores of PK-12 teachers for the six dimensions of the Teacher Retention Survey based on education level (Bachelors or Masters and above). Based on the results of multiple independent-samples t tests, there is a significant difference in the mean scores based on

teachers' education level and how they perceive the dimensions of Work Environment and Fit. In these two instances, the null hypothesis was rejected.

Whether there is a significant difference in the mean scores of PK-12 teachers for the six dimensions of the Teacher Retention Survey based on the number of schools where the teachers have taught during their career (1 school, 2 schools, 3 schools, or 4 or more schools) was addressed in Research Question 4. Based on the results of multiple ANOVA tests, there appears to be no significant difference in the mean scores based on the schools category and how PK-12 teachers perceive the 6 retention dimensions. The null hypotheses were retained in all tests.

Research Question 5 addressed whether there is a significant difference in the mean scores of PK-12 teachers for the six dimensions of the Teacher Retention Survey based on the number of school districts where the teachers have taught during their career (1 district, 2 districts, 3 districts, or 4 or more districts). Based on the results of multiple ANOVA tests, there appears to be no significant difference in the mean scores based on the districts category and how PK-12 teachers perceive the 6 retention dimensions. The null hypotheses were retained in all tests.

Whether there is a significant difference in the mean scores of PK-12 teachers for the six dimensions of the Teacher Retention Survey among the areas of PK-12 teacher certification categories (elementary education, secondary education, or multiple certifications) was addressed in Research Question 6. Based on the results of multiple ANOVA tests, there is a significant difference in the mean scores based on the teachers' certification category and how they perceive the dimensions of Leadership and Evaluation. In these two instances, the null hypotheses were rejected.

Research Question 7 addressed whether there is a significant difference in the mean scores of PK-12 teachers for the six dimensions of the Teacher Retention Survey based on military affiliation (veterans themselves or have spouses that have previously or are currently serving in the armed forces). Based on the results of multiple independent-samples t tests, there appears to be no significant difference in the mean scores based on PK-12 teachers' military affiliation and how they perceive the 6 retention dimensions. The null hypotheses were retained in all tests.

Research Question 8 addressed whether there is a significant difference in the mean scores of PK-12 teachers for the six dimensions of the Teacher Retention Survey among the career plans categories (continue to work as a teacher or plan to leave the teaching profession within 3 years). The results of multiple independent-samples t tests showed there is a significant difference in the mean scores of the evaluation and mentorship dimensions based on PK-12 teachers' career plans. For the evaluation and mentorship dimensions, the null hypotheses were rejected.

Summary of Short Answer Questions

The Teacher Retention Survey contained three questions that allowed respondents to answer open-ended questions. The first question asked PK-12 teachers to identify the three most rewarding aspects of their job with 1 being most important, 2 being next most important, and 3 being the next most important. For the analysis, I assigned 3 points to the respondent's most rewarding aspect, 2 points to the second most rewarding, and 1 point to the third most important and summed all responses. The four most popular responses included Student Growth (45% of points), Relationships with Co-workers (15% of points), Personal Growth

(11% of points), and School Climate (10% of points). No other response received more than 10% of points.

The second open-ended question asked PK-12 teachers to identify any condition that would prompt them to leave the teaching profession. I examined responses to capture and count the conditions that would likely cause a teacher to leave his or her job. The most identified condition was increased workload (identified 31 times). Lack of support from school and district administration was the second most cited condition (identified 30 times). A decline of student behavior was mentioned 29 times as being a condition that would cause teachers to leave. Poor leadership was another condition that could cause teachers to leave the profession (identified 25 times). On 25 surveys, teachers said that they would be willing to leave the profession if they were offered a better job.

The final question on the Teacher Retention Survey asked for PK-12 teachers to provide their opinion on what factors could be improved to have the most positive impact on teacher retention. While Figure 47 showed the ten most significant factors identified by respondents, the overwhelming number of responses were associated with compensation and leadership. Increased compensation was identified by 91 of the 210 respondents as a factor that would have the most positive impact on teacher retention. The second most frequently identified factor was administration and leadership support (identified 89 times). Closely related to administration support, 42 respondents reported that more support from administration in dealing with student behavioral issues could improve teacher retention.

Conclusion

The purpose of this quantitative study was to determine the distinct factors that contribute to PK-12 teacher retention. By identifying factors that contribute to teachers'

decision to remain in the field, school leadership can attempt to make improvements to those factors to prevent voluntary attrition. Based on the review of literature there have been multiple efforts to improve teacher retention including the implementation of new teacher support programs, mentoring programs, pension enhancements, new evaluation systems, teacher retention bonuses, and leadership development programs. This study was designed to determine which factors are valued by PK-12 teachers in the participating school system. I identified dimensions that teachers value based on different demographic aspects, so leaders may be able to use this research to avoid voluntary attrition. This research may also serve as a resource for school districts when considering changes to the work environment, support and mentoring programs, compensation initiatives, teacher evaluation systems, and leader development.

Work Environment

A teacher's work environment includes the physical place of employment where they teach and other components such as safety, teacher shortages, induction programs, class size, and perceptions of support from administration and parents (National Center for Education Statistics, 1999). In addition to safety, teacher shortages, and class size, Musu-Gillette et al. (2018) described many other challenges that teachers faced in their work environment including student behavior and tardiness and administration's reluctance to enforce school rules. Moulthrop et al. (2006) also identified other challenges in the teachers' work environment to include pressures of being in the present and the requirement to adapt to an exchanging environment. The number of students that a teacher was required to teach, or often referred to as class size, was another important aspect that made the teachers' work environment challenging (Chingos & Whitehurst, 2011).

The teachers' work environment dimension was examined in all eight research questions, and there was a significant difference in Research Question 3. The independent-samples t test found that the mean scores of PK-12 teachers' perceptions of work environment based on education level (Bachelors or Masters and above) were significantly different. Teachers' responses to the short answer questions on the Teacher Retention Survey indicated that the work environment was an important factor and specifically identified student behavior, excessive workload, violence, safety concerns, stress, enforcing standards, class size, and the physical work environment as aspects that influenced retention.

Fit

Heathfield (2018) described job and cultural fit as key components in hiring and retaining employees. Person-job fit is the match between an employee's strengths, needs, and experience and the demands of a particular job. Cultural fit is the consideration of whether an employee will work well in an organization's culture. Employees will likely leave an organization if the values and beliefs are not shared. There are also aspects of community fit where it is important for an employee to relate to the community where one lives. Person-job fit includes an employee's knowledge, skills, abilities, and attitude compared to the job demands and tasks (Christiansen, Sliter, & Frost, 2014). Christiansen et al. found that employees received both intrinsic and extrinsic rewards when performing work that matched their personalities and temperament. Deniz, Noyan and Ertosun (2015) studied the relationship between person-job fit and stress and found that there was a statistically significant relationship between the two.

The fit dimension was examined in all eight research questions, and there were significant differences in Research Questions 1 and 3. Based on an ANOVA test, there was a

significant difference in the mean scores of PK-12 teachers' perceptions of fit among the years of experience categories (0-3 years, 4-8 years, or 9 or more years). An independent-samples t test found that the mean scores of PK-12 teachers' perceptions of fit based on education level (Bachelors or Masters and above) were also significantly different. Teachers' responses to the short answer questions on the Teacher Retention Survey indicated that fit was an important factor and specifically identified student growth, personal growth, school climate, and community, parent, and student connections as aspects that influenced retention.

Compensation and Benefits

Compensation is defined as the monetary reward that employees are receive for doing their jobs, and benefits are those nonmonetary rewards for doing a job which can include paid time off, health care, defined contribution plans, pension plans, and family-friendly benefits (Miller, 2016). Moulthrop et al. (2006) found that the prevailing attitudes concerning teacher compensation were mixed, but they averaged an additional 10 hours per week of work outside the classroom and 42% had summer jobs. The authors derived that teachers working multiple jobs were more likely to burnout and leave the profession than teachers not working multiple jobs. Koedel et al. (2013) noted that the teacher compensation and benefits package was designed to reward career service and found that the system was costly, did not improve quality of instruction, and actually caused some teachers to leave the profession earlier.

While the compensation dimension was examined in all eight research questions, there was no significant differences in the mean scores regardless of demographics. This could be attributed to the mean for compensation only scoring 15.13 for the four questions addressing the topic which means that respondents slightly disagreed with the premise that they are compensated fairly for the work they perform. Teachers' responses to the short answer

questions on the Teacher Retention Survey indicated that improved compensation would have the greatest impact on teacher retention.

Leadership

For the purpose of this study, leadership was defined as the educational leaders responsible for affecting the climate, and attitude, and reputation of the school and its teachers. Leadership was responsible for building the team, supporting teachers, having a vision for the school, setting expectations, creating a learning environment (University of San Diego), and professionally developing subordinates. Lockwood (2007) identified the manager-employee relationship as the most important factor affecting employee commitment. An effective relationship had to be built on trust and respect, and the Lockwood noted that only 56% of employees thought their manager knew what they contributed to the organization and how to best use the employee's talents to their full extent. Moulthrop et al. (2006) found that the lack of recognition from school leadership contributed to some teachers' decision to leave. Multiple studies identified that one of the key factors affecting employee retention was the relationship between employees and their supervisors (Allen, 2008; Lockwood, 2007; Moulthrop et al., 2006; Whipp & Geronime, 2015). Whipp and Geronime (2015) found that "a combination of school leadership, collegial relationships, and school culture are most important" (p. 3) in retaining teachers.

The leadership dimension was examined in all eight research questions, and there were significant differences in Research Questions 2 and 6. Based on the results of an independent-samples t test, there is a significant difference in the mean scores based on teachers' gender. Based on the results of an ANOVA test, there is also a significant difference in the mean scores based on the teachers' certification category. Teachers' responses to the short answer

questions on the Teacher Retention Survey indicated that leadership was an important retention factor. They cited leadership at the school and district levels, support from administration, defining the vision, recognition, and appreciation as factors that contributed to retention.

Performance Management System

For this study, the performance management system was defined as both the performance appraisal process and employee development. An effective performance management system clarifies expectations and responsibilities, builds teamwork, develops employee capabilities, aligns employee behavior with organizational goals, improves communication, and provides a basis for personnel decisions (Pulakos, 2004). There are multiple studies and examples where school districts have changed the teachers' performance management system to improve teacher performance and compensation (Robertson-Kraft & Zhang, 2016; Mintrop, Ordenes, Coghlan, Pryor & Madero, 2018; Moulthrop et al., 2006;). The results of the changes to the performance management system have been mixed. Robertson-Kraft and Zhang (2016) found that there were many factors that contributed to teacher retention patterns, and while the evaluation system mattered, successful implementation depended largely on the teachers' trust of the school administration and their ability to fairly administer the system.

The evaluation dimension was examined in all eight research questions, and there were significant differences in Research Questions 1, 2, 6, and 8. Based on the results of ANOVA tests, there are significant differences in the mean scores based on teachers' years of experience and certification category. Independent-samples t tests showed that there are significant differences in the mean scores based on teachers' gender and career plans.

Peer Support and Mentoring

Peer support is the process where teachers that share common experiences and challenges come together to share views, opinions, knowledge, empathy, assistance and encouragement (Penny, 2018), and mentoring is a formal or informal program where relationships are formed between a mentor and a mentee. During the course of the relationship, the mentor provides the mentee with challenges, encouragement, direction, and promotes individual growth (Labin, 2017). Kram and Isabella (1985) found that peer support in the workplace functioned very similarly to mentoring relationships in that they supported both career-enhancing and psychosocial needs of employees. They concluded that there was a continuum of relationships that were impacted by age and experience in the work environment. Less experienced employees used peer support relationships to gain career-enhancing advice, information sharing, and organizational advancement from the more experienced employees. Isabella (1985) established that peer support was instrumental in helping new employees discover their professional identity. Both parties of a peer relationship benefit because they were able to provide confirmation and gain common understanding by sharing perceptions, values, and beliefs, and they each received emotional support by listening and counselling each other.

The mentorship dimension was examined in all eight research questions, and there were significant differences in Research Questions 1 and 8. Based on the results of an ANOVA test, there is a significant difference in the mean scores based on teachers' years of experience. An independent-samples t test showed there is a significant difference in the mean scores of the mentorship dimension based on PK-12 teachers' career plans. Teachers' responses to the short answer questions on the Teacher Retention Survey indicated that peer

support and mentorship was an important retention factor. Relationships with co-workers was the second most popular answer to what teachers found most rewarding about their career.

Recommendations for Practice

The findings from this study could be used to make many recommendations school administration. The following recommendations are practical means by which those who are responsible for teacher retention can attempt to avoid voluntary attrition:

1. Recognize that work environment, fit, compensation, leadership, performance management, and mentoring can all affect retention and are viewed differently based on teacher demographic groupings.
2. A teacher's work environment includes many aspects including the physical place, safety, teacher shortages, induction programs, class size, perceptions of support, student behavior, pressure, and stress. I found no evidence that one aspect was more important than any other so it appears that each aspect of the work environment needs to be maintained at an acceptable level.
3. Christiansen et al. (2014) found that employees received both intrinsic and extrinsic rewards when performing work that matched their personalities and temperament. Based on the present study, PK-12 teachers appear to value student growth as the most rewarding aspect of their job. It is likely that new initiatives will be better perceived if there is a linkage between successful implementation and future student growth.
4. Based on the present study, PK-12 teachers report that relationships with their co-workers as the second most rewarding aspect of their jobs. Leaders could use peer-support programs, new employee orientations, team-building exercises, and other social events to increase job satisfaction,

5. Moulthrop et al. (2006) found that the lack of recognition from school leadership contributed to some teachers' decision to leave, and the present study also identified that teachers want to be recognized for their efforts and contributions. School leaders should consider establishing or enhancing their employee recognition program.
6. Based on the results of the literature review and the present study, teachers do not feel that they are compensated fairly. It is likely that any increase in compensation or benefits would be viewed positively by teachers.
7. Based on responses from the Teacher Retention Survey, PK-12 teachers value school leadership and have strong opinions about the level of support they provide. School leaders' actions do not go unnoticed and could impact retention.

Recommendations for Further Research

The following list details recommendations for potential areas for continued research:

1. Based on the results of my study, teachers' years of experience appear to influence how they perceive the dimensions of Fit, Evaluation, and Mentorship. This study only categorized years of experience into three groups: 0-3 years, 4-8 years, and 9 or more years. Would additional experience categories show changing perceptions over time?
2. My study showed that there was a difference in how PK-12 teachers with different levels of education perceived their work environment and their fit in the profession. What caused the different perceptions?
3. In my study, I expected to find that teaching in multiple schools or in multiple school districts would impact how teachers viewed their current environment, leadership, or other factors, but I found no significant difference. This area of research could lend itself to a qualitative design.

4. Several teachers identified aspects of leadership that affected their perceptions of their job. Any type study focusing only on the leadership aspects could be beneficial. This area of research could lend itself to a qualitative design.
5. My study was conducted in one school district in the Midwest. It could be replicated in other school districts or in other locations.
6. Qualitative research could be conducted to determine why former teachers actually left the teaching profession.

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[job+fit+to+job+stress%3A+The+mediating+effect+of+perceived+person-organization+fit&aqs=chrome..69i57.2452j0j8&sourceid=chrome&ie=UTF-8](http://www.deepdyve.com/lp/elsevier/authentic-leadership-a-review-of-the-literature-and-research-agenda-OJFsPogqEK)

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APPENDICES

APPENDIX A

Teacher Retention Survey Instrument

The purpose of this quantitative study utilizing a survey method is to determine the distinct factors that contribute to K-12 teacher retention. Your answers to these questions will be consolidated with other respondents and will help in the formulation of findings. There will be no attempt to identify individual respondents and all items are optional. Thank you for being an important part of my dissertation research.

Demographics: *Please check the answer that best describes you.*

1. Gender?

Male _____

Female _____

Other (Please Indicate): _____

2. Ethnicity? _____

3. What is the highest level of education you have completed?

___ Bachelor's Degree

___ Master's Degree

___ Ed. S. Degree

___ Doctoral Degree

4. What is your area of teacher certification?

___ Early Childhood

___ Elementary Education

___ Secondary Education

___ Alternative Certification

___ Other (Please identify):

5. How many years have you been employed as a teacher? _____

6. How many different schools have you worked in?

- One school
- Two schools
- Three schools
- Four or more schools

7. How many different school districts have you worked in?

- One district
- Two districts
- Three districts
- Four or more districts

8. What best describes your career plans for the next three years?

- Continue to work as a teacher
- Continue to work as a teacher but will change schools
- Move into school administration
- Leave the education profession entirely and enter a new career field
- Retire from the education career field
- Other (please describe): _____

9. Do you or your spouse currently serve in the U.S. Military?

- Yes
- No
- Previously served

Survey Statements: *Please select the number that best describes your attitude about the statement.*

Environment

1. Teachers choosing to leave the career field are creating a shortage of qualified educators at my school.

6	5	4	3	2	1
Strongly Agree	Agree	Slightly Agree	Slightly Disagree	Disagree	Strongly Disagree

2. When teachers leave my school, new teachers are hired quickly enough to have minimum impact on the students.

6	5	4	3	2	1
Strongly Agree	Agree	Slightly Agree	Slightly Disagree	Disagree	Strongly Disagree

3. My students' behavior is appropriate for learning.

6	5	4	3	2	1
Strongly Agree	Agree	Slightly Agree	Slightly Disagree	Disagree	Strongly Disagree

4. I feel safe at my school.

6	5	4	3	2	1
Strongly Agree	Agree	Slightly Agree	Slightly Disagree	Disagree	Strongly Disagree

5. My school's facilities are conducive for learning.

6	5	4	3	2	1
Strongly Agree	Agree	Slightly Agree	Slightly Disagree	Disagree	Strongly Disagree

6. The number of students in my class is an appropriate size to maximize learning.

6	5	4	3	2	1
Strongly Agree	Agree	Slightly Agree	Slightly Disagree	Disagree	Strongly Disagree

Fit

7. Working as a teacher is personally satisfying.

6	5	4	3	2	1
Strongly Agree	Agree	Slightly Agree	Slightly Disagree	Disagree	Strongly Disagree

8. I feel very connected to the community where I work.

6	5	4	3	2	1
Strongly Agree	Agree	Slightly Agree	Slightly Disagree	Disagree	Strongly Disagree

9. I feel very connected to my coworkers.

6	5	4	3	2	1
Strongly Agree	Agree	Slightly Agree	Slightly Disagree	Disagree	Strongly Disagree

10. I feel that I fit well in the school where I work.

6	5	4	3	2	1
Strongly Agree	Agree	Slightly Agree	Slightly Disagree	Disagree	Strongly Disagree

11. It would be a personal sacrifice to leave my current job.

6	5	4	3	2	1
Strongly Agree	Agree	Slightly Agree	Slightly Disagree	Disagree	Strongly Disagree

12. I am a very effective teacher.

6	5	4	3	2	1
Strongly Agree	Agree	Slightly Agree	Slightly Disagree	Disagree	Strongly Disagree

Compensation

13. I am fairly compensated for the work that I do.

6	5	4	3	2	1
Strongly Agree	Agree	Slightly Agree	Slightly Disagree	Disagree	Strongly Disagree

14. The teacher profession is appealing to me because of the retirement plan.

6	5	4	3	2	1
Strongly Agree	Agree	Slightly Agree	Slightly Disagree	Disagree	Strongly Disagree

15. Increased pay would influence my decision to remain in the teaching profession.

6	5	4	3	2	1
Strongly Agree	Agree	Slightly Agree	Slightly Disagree	Disagree	Strongly Disagree

16. A one-time retention pay bonus would influence my decision to remain in the teaching profession.

6	5	4	3	2	1
Strongly Agree	Agree	Slightly Agree	Slightly Disagree	Disagree	Strongly Disagree

Leadership

17. My school's leadership makes my job easier.

6	5	4	3	2	1
Strongly Agree	Agree	Slightly Agree	Slightly Disagree	Disagree	Strongly Disagree

18. I feel very connected to the management and administration at my school.

6	5	4	3	2	1
Strongly Agree	Agree	Slightly Agree	Slightly Disagree	Disagree	Strongly Disagree

19. My supervisor takes an active role in ensuring my success.

6	5	4	3	2	1
Strongly Agree	Agree	Slightly Agree	Slightly Disagree	Disagree	Strongly Disagree

Evaluation

20. My school's evaluation system is effective at measuring my contributions.

6	5	4	3	2	1
Strongly Agree	Agree	Slightly Agree	Slightly Disagree	Disagree	Strongly Disagree

21. My school's evaluation system helps me to improve my performance.

6	5	4	3	2	1
Strongly Agree	Agree	Slightly Agree	Slightly Disagree	Disagree	Strongly Disagree

22. A better teacher evaluation system would influence my decision to remain in the teaching profession.

6	5	4	3	2	1
Strongly Agree	Agree	Slightly Agree	Slightly Disagree	Disagree	Strongly Disagree

Mentoring

23. More experienced teachers take an active role in helping me be a more effective teacher.

6	5	4	3	2	1
Strongly Agree	Agree	Slightly Agree	Slightly Disagree	Disagree	Strongly Disagree

24. A better mentoring program would influence my decision to remain in the teaching profession.

6	5	4	3	2	1
Strongly Agree	Agree	Slightly Agree	Slightly Disagree	Disagree	Strongly Disagree

Survey Questions: *Please select the best response that describes your situation.*

1. I consider which of the following the MOST rewarding part of my job. (Please rate the top three choices with #1 being most rewarding).

- Student Growth
- Community Connection
- Parents Connection
- Personal Growth
- Financial Stability
- Relationships with Co-workers
- School Climate
- Other (Please Specify): _____

Short Answer Questions: *Please provide an answer to the following questions.*

1. What would make you decide to leave the teaching profession?
2. In your opinion, what factors could have the greatest impact on teacher retention?
3. Is there anything else that you would like to add?

Thank you for your responses and being a part of this important study.

APPENDIX B

Informed Consent Prior to Survey

Dear Participant:

My name is Jeffery E. Phillips, and I am a doctoral student at East Tennessee State University. I am working on my doctoral degree in Educational Leadership. In order to finish my studies, I need to complete a dissertation. The name of my research study is Factors that Contribute to K-12 Teacher Retention.

The purpose of this study is to determine the distinct factors that contribute to K-12 teacher retention. I would like to give a brief survey questionnaire to all teachers working in Unified School District 475. It should only take about fifteen minutes to complete. You will be asked questions about factors that contribute to your decision to remain in the teaching profession. This study may provide benefit by providing more information about why teachers choose to continue to teach.

You will receive the survey and have up to two weeks to complete your answers. Once you complete your survey responses, you will seal your survey in the envelope that I have provided. I will collect all the surveys from distribution at the end of the period. I will not ask for your name on the survey and no group or individual from your school district will ever see your completed survey form. I will aggregate all responses for my study and they will see the summarized results. Although your rights and privacy will be maintained, the ETSU IRB and personnel particular to this research in ETSU's Department of Education have access to the study records.

If you do not want to fill out the survey, it will not affect you in any way. There are no alternative procedures except to choose not to participate in the study.

Participation in this research study is voluntary. You may refuse to participate. You can quit at any time.

If you have any research-related questions or problems, you may contact me at (706) 718-5448. I am working on this dissertation under the supervision of Dr. James Lampley. You may reach him at (423) 439-4430. Also, the chairperson of the Institutional Review Board at East Tennessee State University is available at (423) 439-6054 if you have questions about your rights as a research subject. If you have any questions or concerns about the research and want to talk to someone independent of the research team or you can't reach the study staff, you may call an IRB Coordinator at 423/439-6055 or 423/439/6002.

Sincerely,

Jeffery E. Phillips

VITA

JEFFERY E. PHILLIPS

- Education: East Tennessee State University, Johnson City, TN
Ed.D., Educational Leadership, December 2019
Concentration: Higher Education Leadership
- U.S. Army War College, Carlisle, PA
M.S.S., Strategic Studies, June 2015
- U.S. Naval Postgraduate School, Monterey, CA
M.B.A., Business Administration, May 2005
Concentration: Systems Acquisition
- Tarleton State University, Stephenville, TX
M.S., Human Resource Management, May 2003
- University of Oklahoma, Norman, OK
M.H.R., Human Relations, December 1996
- East Tennessee State University, Johnson City, TN
B.B.A., Business Administration, May 1994
Concentration: Marketing
- Professional Experience: Chief of Staff, U.S. Army Contracting Command,
Redstone Arsenal, Huntsville, AL, 2019-Current
- Regional Commander, Defense Contract Management
Agency, Chicago, IL, 2018-2019
- Commander, Defense Contract Management Agency–
Orlando, Orlando, FL, 2015-2018
- Commander, 904th Contingency Contracting Battalion,
Fort Knox, KY, 2011-2014
- U.S. Army Commissioned Officer, Second Lieutenant -
Colonel, 1994-Current
- Honors and Awards: *2015 Army War College Foundation Dr. Sara L. Morgan
Civilian Development and Management Writing Award* for
Strategic Research Project titled “Private Security Companies
and Operational Contract Support”