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Comparing Job Satisfaction Between Certified and Noncertified Substitute Teachers

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This is to certify that the doctoral study by

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has been found to be complete and satisfactory in all respects,
and that any and all revisions required by
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Walden University
2018

Abstract

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by

Katie M. Schkolenko

MS, Marywood University, 2011

BS, Ithaca College, 2005

Dissertation Submitted in Partial Fulfillment

of the Requirements for the Degree of

Doctor of Education

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May 2018

Abstract

A rural, mid-sized district is experiencing great difficulty in the recruitment and retention of substitute teachers despite increased recruitment efforts. Such difficulty has resulted in numerous disruptions to the educational process. Despite their integral role in the educational process, research on substitute teachers remains absent from the literature. The purpose of this quantitative study was to assess the job satisfaction of substitute teachers with regard to differences between the two subgroups of certified and noncertified substitute teachers. This study was based on the two-factor theory. The research questions addressed the overall job satisfaction of substitute teachers, whether teacher job satisfaction (DV) differed by subgroup membership (IV), and the motivation and hygiene factors of substitute teaching. Survey data collection involved a cluster sampling of substitute teachers ($N = 315$, $n = 51$) working in four rural school districts experiencing shortages. Data were analyzed using ANOVA and thematic analysis. Demographic subgroups that reported above average job satisfaction were females, those with 1-3 years of experience, and those with the highest level of education being a bachelor's degree. The analysis uncovered a statistically significant difference between noncertified and certified substitute teachers only in the subcategory of satisfaction with pay, with certified substitute teachers being less satisfied. The most commonly reported motivation factors were the students, coworkers, and the nature of work; the most commonly reported hygiene factors were pay, student behavior, and communication. The study contributes to social change by identifying dissatisfying aspects of substitute teaching so that administrations may take action to alleviate the shortage, providing students with improved educational experiences with substitute teachers.

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Dedication

This work is dedicated to my students, past, present, and future. Remember to ask questions, be patient, be persistent, and be a fearless learner. Thank you for all you have taught me.

Acknowledgments

First and foremost, thank you to my family, your love, support, and friendship have been paramount in this journey. I am eternally grateful to have you in my life. To my friends thank you for your understanding of my absence and your interest in my work. I think we can hang out now. To my teachers past and present, thank you for never giving up on the kid who couldn't spell.

I owe a deep gratitude to my faculty chair, Dr. Markus Berndt. Thank you for rescuing me from a disastrous prospectus and helping me to polish a diamond in the rough. To my second committee member, Dr. Rebecca Seymour, thank you for your words of encouragement and of course, your methodological advice. In addition, thank you to Dr. Nicolae Nistor, my URR, for your timely, critical feedback.

To the soon to be Dr. Sharron Wisdom, there is not enough room on this page to describe how much I appreciate your friendship and support. From the texts, the phone calls, meeting for lunch, and the emails your support was unwavering. I will always be grateful to have a friend as amazing and strong as you.

To Dr. Jamie Mason-Clark, thank you for encouraging me to undertake this endeavor and for your support along the way. Thank you, Dr. Diane Szader, for cheering me on, laughing with me, and reminding me that once the late-late show comes on, it's time for bed. To my statistical ace in the hole, Dr. Kristel Gallagher, thank you for our texting marathons, your answers to my endless statistical questions; but most importantly for your friendship, support, and ability to put things in perspective.

There were many other people along the way who took interest or offered help. I owe a debt of gratitude to each and every one of you.

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Chapter 1: Introduction to the Study

Research has demonstrated the detrimental effect teacher absences have on student achievement (Tingle, Schoeneberger, Wang, Algozzine, & Kerr, 2012). Although detrimental, and somewhat controversial (Kronholz, 2013), teacher absences are unavoidable. According to the US Department of Education Office of Civil Rights (2016), 6.5 million students go to a school where more than 50% of their teachers were absent 10 or more days per school year. The Office of Civil Rights found that 27% of teachers were absent for 10 days or more per school year. Districts must acquire a pool of qualified substitute teachers to fill these absences with minimal negative effect on the educational process.

The job of a substitute teacher has been shown to be stressful (Driedger-Enns, 2014; Gershenson, 2012; Vorell, 2012), making it a difficult task to recruit and retain qualified applicants. A rural, mid-sized district was experiencing this recruitment and retention problem, despite increased recruitment efforts and geographic proximity to many colleges and universities with teacher education programs.

Despite their integral role in the educational process, research on substitute teachers remains largely absent from the literature. Substitute teachers themselves, according to Cardon (2002), represent a group damaged by low pay and perceptions about low standards and quality. Without detailed information about the work and the individuals who complete such work, districts are left only to guess at the potential causes and solutions to the current shortage. In this study I surveyed a sample from the population of substitute teachers in an attempt to gain a clearer understanding of the work

itself, the motivation and hygiene factors, and differences in job satisfaction amongst those currently employed. This study was conducted to bring about positive social change by identifying aspects of substitute teaching that were potentially dissatisfying. Any improvements would help to raise the working conditions of substitute teachers, which may lessen the negative impact of teacher absences on the educational process. In the chapter that follows I provide a brief overview of the problem and its educational implications, define key terms, and delineate the need and structure of the study.

Background

The study site, a public PreK-12 school district, had a student population just over 3,000 students in 5 schools and covered 300 rural square miles. The predominately Caucasian (90%) student population comprised of 55% of students who qualified as economically disadvantaged and 17% percent who were receiving special education services (Department of Education, 2016). The district reported that 50.74% of their teachers were absent ten days or more during the 2015-2016 school year, leaving the district to cover 8,929 absences during the year, with a current pool of only 42 substitute teachers (30 certified and 12 noncertified teachers). A district administrator (Administrator, personal communication, November 14, 2016) reported 62 teacher absences on a single day, leaving almost half of those classrooms unfilled as not all substitutes accepted a job on that day.

The district maintained geographical proximity to multiple universities and colleges offering teacher preparation programs. An internet search found 10 colleges and universities offering teacher preparation programs within a 50-mile radius of the district's

main campus. Frequent contact with these programs and partnerships with field placement and student teaching make the district familiar to many students before their graduation. While this search centered around the district's main campus, its satellite location is closer, to the nearest two metropolitan areas (11 and 14 miles) and the educational institutions located therein. Additionally, both the main and satellite campus, located near a major interstate highway, are potentially advantageous (Gershenson, 2013) to those job-seekers looking to commute from outlying areas. Despite these relative geographical advantages for a rural district, it still struggled to recruit a sizable pool of substitute teachers.

The literature, further detailed in Chapter 2, described substitute teaching as stressful (Bletzer, 2010; Driedger-Enns, 2014; Gershenson, 2012; Vorell, 2012) but potentially rewarding (Bletzer, 2010) work. Often viewed as a stepping-stone for newly certified teachers to full-time employment, substitute teaching provided a flexible schedule with minimal responsibilities yet held networking potential for aspiring teachers (Duggleby & Badali, 2007). Substitute teaching was reported to also present a darker side. Research conducted by Cardon (2002), and similarly by Duggleby and Badali (2007) found harmful negative perceptions of substitute teachers to be extremely damaging to their self-image and satisfaction. Lassman (2001) suggested that the title of substitute teacher was inherently damaging.

As evidenced from a search of data compiled by the Bureau of Labor Statistics (2015b), wages for substitute teachers showed great variation by state. In addition, the National Education Association (2015) reported a high degree of variation by state and

even school district in the educational requirements for substitute teachers. Additionally, there was little to no training provided to substitute teachers (True, Butler, & Sefton, 2011).

For unknown reasons or, more likely, a combination of many factors, this rural district is suffering a substitute teacher shortage. This study addressed the work of substitute teaching to identify those factors that may contribute to the satisfactory or unsatisfactory nature of the job. It is necessary to define the nature of substitute teaching before addressing difficulty in retention and recruitment.

Problem Statement

As early as November, 2015, stories documenting Pennsylvania school districts experiencing difficulty in acquiring substitute teachers began to appear in state and regional newspapers (Brandt, 2015; Hofius Hall, 2016; Martines, 2017; Palochko, 2016). Along with statistical information about the shortages, each also contained a plea for those qualified to consider employment as a substitute teacher. One article (Higgins, 2016) chronicling a similar shortage in Michigan even highlighted billboard advertisements aimed at recruiting substitute teachers.

The problem of not having substitute teachers is that when teachers are absent, their classes are combined or relegated to study hall with instructional time lost (Administrator, personal communication, November 14, 2016). The shortage of substitute teachers has resulted in an increase in disruptions to the educational process. Additionally, teachers' requests for professional development time have to be refused because there are no substitutes (Administrator, personal communication, November 14,

2016). In response, the district has stepped up recruitment efforts but has yet to recruit enough applicants. Complicating this matter is the aforementioned shortage of literature on the work of substitute teachers and an understanding of the current workforce.

Purpose of the Study

The purpose of this quantitative study was to assess the job satisfaction of substitute teachers with regard to differences between the two subgroups of certified substitute teachers and noncertified substitute teachers. The study was designed to determine if group membership (IV) has any effect on job satisfaction (DV) and to identify relevant factors influencing job satisfaction of substitute teachers. The overall goal was to ascertain dissatisfying aspects that administration could improve in order to increase employment and retention of substitute teachers (see Appendix A). Secondarily, as substitute teachers are infrequently addressed in research, I aimed for the study to contribute to the literature.

Research Question and Hypotheses

In order to better understand this problem, I planned to solicit further information from the current pool of substitute teachers. The following research questions were developed after careful consideration of the problem. Aligned with the theoretical work of Herzberg's two-factor theory (Herzberg, 1966; Herzberg, Mausner, & Snyderman, 1959), in which motivation factors were defined as those that contribute positively to job satisfaction, while negative influences or external factors are called hygiene factors. The theoretical foundation of this study is further discussed in the following section (see Theoretical Framework).

As the problem entails both recruitment and retention and was complex, it was important that I ensured that the research questions addressed multiple aspects of job satisfaction for substitute teachers. This study addressed the following research questions:

RQ1: What is the overall job satisfaction level of substitute teachers?

RQ2: Is there a significant difference in job satisfaction between certified substitute teachers and noncertified substitute teachers in rural Pennsylvania districts?

$H_0$2: Certified substitute teachers' job satisfaction does not significantly differ (p = .05) from noncertified substitute teachers'.

H_a2: Certified substitute teachers' job satisfaction is significantly higher (p = .05) than noncertified substitute teachers'.

RQ3: What are the motivation and hygiene factors substitute teachers indicate as influencing their job satisfaction?

Data collection utilized a job satisfaction survey to investigate the overall job satisfaction of substitute teachers. In an attempt to answer the second research question and determine the effect of the independent variable, certified or noncertified substitute teachers on the dependent variable of job satisfaction, quantitative survey data were separated and statistically compared. Data collection for the final research question involved open-ended survey items in which participants were asked to identify motivation and hygiene factors of the work of substitute teaching. Chapter 3 contains a

detailed description of instrumentation, data collection procedures, and statistical analysis.

Theoretical Framework

Bombarded by a media and popular culture, Americans are obsessed with health, happiness, and well-being. Undoubtedly, this obsession and the quest for happiness and prosperity has spilled over into the workplace. Workers are no longer content to settle for existence as the "robots" described by Mills (1951) who would rather purchase material objects for happiness, outside of their occupations. Rather, as Diener (1984) suggested, jobs bring more than just income-based happiness. Perhaps the awareness that well-being relates to daily activities means workers are more cautious in choosing jobs. Should the job of a substitute teacher be dissatisfying, then, in light of Diener's (1984) work, it may be that the nature of the job itself is creating the shortage.

Spector (1985) suggested satisfaction at work impacts the decision to remain in current employment or seek other employment, a suggestion confirmed by recent literature on job satisfaction (Aydogdu & Asikgil, 2011; Huang & Su, 2016). Therefore, to address the recruitment and retention problem that this district was facing it was imperative to gain an understanding of the current job satisfaction of those in the position. Herzberg's two factor theory (Herzberg, 1966; Herzberg et al., 1959) suggested that job satisfaction is maintained by motivational, intrinsic factors while dissatisfaction is promoted by other external, hygiene factors. To examine the job satisfaction of substitute teachers according to two-factor theory (Herzberg, 1966; Herzberg et al., 1959), it was imperative to measure both motivation and hygiene factors.

In accordance with the two-factor theory, which is discussed further in Chapter 2, two preexisting surveys were chosen to measure motivation, hygiene, and overall job satisfaction. The instrumentation used to measure motivation was the Teacher Satisfaction Scale (TSS) developed by Ho and Au (2006) as an adaptation of Diener, Emmons, Larsen, and Griffin's (1985) Life Satisfaction Scale. To measure hygiene, I used the Job Satisfaction Survey (JSS; Spector, 1985).

Nature of the Study

This study was a quantitative, survey research study with two open-ended questions asking participants to simply list the most satisfying and most dissatisfying aspects of their job in case they were not listed in the survey. The study was a causal-comparative study comparing the job satisfaction data from two groups, certified substitute teachers and noncertified substitute teachers. Group membership was the independent variable, while numeric scores from the instrumentation served as the dependent variable. The instrumentation was a combination of two preexisting surveys administered electronically. In addition, there were open-ended survey items specifically addressing the identification of motivation and hygiene factors.

This design was chosen to establish the relative job satisfaction of substitute teachers, identify differences in job satisfaction in particular groups, and identify the motivation and hygiene factors in the job of substitute teaching. Chapter 3 and Appendix A contain a detailed explanation of the design alignment.

Definitions

For this study, it was imperative that I define and clarify the following terms to avoid confusion.

Teacher absence: This term was utilized to describe a situation in which the regularly, permanently employed teacher is not present to conduct their teaching duties. Reasons for absences may range from illness, personal or family reasons, or medical leave, and also include professional and athletic reasons such as field trips and away sporting contests (Tingle et al., 2012). Record keeping of these absences does not differentiate between the absences that still involve the supervision and instruction of students outside of the regularly scheduled classes (Administrator, personal communication, November 14, 2016). High incidences of teacher absence have been connected to lower student achievement (Tingle et al., 2012) and student misbehavior (Ervasti et al., 2012).

Substitute teacher: For the purpose of this study, a substitute teacher was defined as a person employed by a district to fill daily or long-term teacher absences.

Certified substitute teacher: This term was used to describe a person employed as a substitute teacher who holds a bachelor's degree in an educational field and a state teaching certification.

Noncertified Substitute Teacher: This term was used to describe a person employed as a substitute teacher who holds a bachelor's degree in a field other than education and does not have a state teaching certification.

Teacher: This term was used to refer to a state-certified teacher who is contractually employed by a school district to fill a permanent teaching position.

Job satisfaction: In 1951, Brayfield and Rothe (1951) suggested that although job satisfaction, also known as employee morale, had been widely researched, it was nonetheless not clearly defined. As a result, Brayfield & Rothe provided a simple definition of job satisfaction as a worker's attitude towards their job. Such a concise definition will suffice, but a more detailed explanation of job satisfaction is provided in Chapter 2.

Motivation factor: This term, as defined by Herzberg (1966; Herzberg et al., 1959) indicates an intrinsic factor that contributes to job satisfaction.

Hygiene factor: This term, as defined by Herzberg (1966; Herzberg et al., 1959) indicates an extrinsic factor that contributes to job dissatisfaction.

Assumptions

For this study, I made some assumptions. First, I assumed that substitute teachers will have a desire to share their experience and would complete the surveys honestly. As demonstrated in the review of the literature (Chapter 2), the voices of substitute teachers remain relatively undocumented, and I assumed they may relish the opportunity to share their experiences. In addition, I assumed that both certified and noncertified substitute teachers would have a similar motivation to complete the surveys and share their experiences. Furthermore, I assumed that regardless of the findings of this particular study, any contribution to the small literature pool concerning substitute teachers would represent new information.

Scope and Delimitations

Research has demonstrated that job satisfaction or dissatisfaction is related to turnover intention (Huang & Su, 2016; Kosteas, 2011), an individual's plan to retain or leave employment. As such, measuring job satisfaction allowed for a glimpse into the stability of the current pool of substitute teachers. I chose to compare subgroups within the population as substitute teachers have no corresponding group. Comparing substitute teachers to regularly employed teachers would be riddled with covariates that could not be statistically equalized. Moreover, investigating the job satisfaction of teachers would yield data of no use to addressing a shortage of substitute teachers. All efforts were made to increase the likelihood that this study found generalizable results. However, as a result of the limitations discussed in the next section the generalizability of this study may be somewhat limited.

Limitations

Although care was taken to design a study that would yield reliable and valid generalizable results, this study did have some limitations. As previously noted, the lack of literature concerning substitute teachers provided limited guidance for this study. To compensate, the literature search, discussed in Chapter 2, drew from the literature concerning teacher job satisfaction, once the literature on substitute teaching was exhausted. Additionally, the theory provided historical reference and guidance for the design of the study. In addition to providing limited guidance, the literature failed to provide details on other geographical areas experiencing a similar shortage of substitute teachers.

This study was limited by geographical location as it only involved rural school districts in Pennsylvania experiencing a shortage of substitute teachers. As such, it was also limited by a small sample size. Although the sample was expanded once, expanding the sample further would have delayed results and introduced the potential for many complicated variables to interfere with any conclusive results. Maintaining a smaller sample size from similar communities allowed any interfering variables to be kept to a minimum. Although these decisions impacted the generalizability of the study, with little to build from in the existing literature, I intended this study to be a starting point to help address a local problem.

Significance

Examination of the job satisfaction of substitute teachers will allow districts struggling to recruit and retain substitute teachers an opportunity to develop a deeper understanding of the job itself. Educational literature mostly neglects the job of the substitute teacher and prefers to study that of the regularly assigned teacher. However, with such a dramatic impact on the educational process and the multitude of disruptions a shortage causes, it is imperative that light is shed on the experience of the substitute teacher as a contribution to the pool of scholarly literature.

Should the information from this study allow even one district to recruit and retain substitute teachers more efficiently, it would have the potential for a rippling effect inspiring positive social change. Exploring the job satisfaction of substitute teachers provides opportunity for voices relatively absent from the literature to be heard. Soliciting information from substitute teachers and examining their job satisfaction from

the perspective of two-factor theory (Herzberg, 1966; Herzberg et al., 1959) provides school districts with actionable data on what factors may be contributing to difficulty with recruitment and retention. Changes to these factors could result in positive changes for current and future substitute teachers.

Although not the focus, this study has the potential to provide insight that sheds light on the daily experience of substitute teachers and the challenges of the job, which could help change perceptions of substitute teachers. With a changed perception, perhaps the working conditions for substitute teachers would improve. Such improvements could frame the work as more desirable and lead to a greater number of job seekers in the field. This would help to alleviate and prevent shortages and curtail some of the disruptions to the educational process for students.

Regardless of the means, should the district be able to acquire an appropriate number of substitute teachers, the district will be able to reduce lost instructional time for students. In addition, educational outcomes may improve if newly hired substitutes are knowledgeable in middle school and high school level content courses (science and math, language, music, art, etc.), as well as pedagogy and classroom management.

If there are sufficient substitutes, classes will no longer need to be combined or designated as study halls. Teachers will not have professional development opportunities denied due to lack of course coverage. Ultimately, with the ability to effectively recruit and retain more substitute teachers, a district in shortage would be able to return to optimal functioning in which students, in the absence of their regular teacher, are properly supervised.

Summary

In this study I aimed to gain information on the job satisfaction of currently employed substitute teachers and utilized survey results and quantitative data to make a comparison between certified substitute teachers and noncertified substitute teachers. The solicitation of open-ended responses contributed a small amount of qualitative data from participants. Although the study was limited by a small sample size, it may help contribute to the limited literature pool that concerns substitute teaching. Should the study contribute to more effective recruitment and retention efforts of districts struggling with shortages of substitute teachers, it may facilitate improvements in educational outcomes for students in such districts. The following chapter examines the existing literature concerning substitute teachers and job satisfaction in an attempt to provide a more comprehensive picture of the work of substitute teaching and its implications in education.

Chapter 2: Literature Review

The shortage of substitute teachers has resulted in an increase in disruptions to the educational process. The purpose of this quantitative study was to assess the job satisfaction of substitute teachers with regard to differences between the two subgroups of certified substitute teachers and noncertified substitute teachers. Secondarily, the topic of substitute teachers suffers from minimal representation in the literature despite a daily role in the educational process. This daily role has shown to be stressful (Driedger-Enns, 2014; Gershenson, 2012; Vorell, 2012) and suffers from negative perceptions (Cardon, 2002). While many may view substitute teaching more positively, such as a path to permanent professional employment (Duggleby & Badali, 2007) or an opportunity to maintain a flexible schedule (Coverdill & Oulevey, 2007), invariably the position is not outside of the influence of modern day educational reform and spending cuts. In this chapter I explore the existing literature on substitute teaching and related educational research. I attempt to connect current educational happenings to the experience of the substitute teacher. While in the previous chapter I introduced current employment data and trends, in this chapter I further that investigation. In addition, I thoroughly examine the concept of job satisfaction and discuss how it applies to recruitment and retention of any workforce in any field.

Literature Search Strategy

I found literature for the following review utilizing an online search strategy and multiple online databases. The following search terms were used: *substitute teacher(s), substitute teacher shortage, teacher absences, contingent work, teacher job satisfaction,*

and *job satisfaction.* These terms were first used in EBSCO Host and Google Scholar. The searches were limited to peer-reviewed and scholarly articles published within the past 5 years. However, when the search on substitute teachers resulted in few results, the publication date restrictions were eliminated. Searches with the same search terms on Google Scholar yielded some overlapping results, but did expand the search to nonperiodical sources including books.

In addition, I conducted general internet searches using Google and the search term "substitute teacher shortage" to obtain any popular media stories about substitute teacher shortages. This search recovered several regional newspaper articles documenting shortages. To further locate viable resources, bibliographical information provided in applicable articles was utilized to locate seminal works concerning the search topics.

Theoretical Foundation

Herzberg's two-factor theory of job satisfaction (Herzberg, 1966; Herzberg et al., 1959) guided this study. Although Kalleberg (1977) criticized the two-factor theory for its ignorance of individual differences within employee perception and experience, the author also praised two-factor theory for its ability to provide employers with direct guidance on the factors to address in order to improve employee satisfaction.

Introduced in 1959 by Herzberg as motivation-hygiene theory and later refined, the two-factor theory held that the factors that influence job satisfaction are separate from those that influence dissatisfaction (Herzberg, 1966; Herzberg et al., 1959). The two-factor theory arose at a time in America when industrialization had helped place an onus

on productivity. Herzberg et al. (1959) began their research and theory development in an environment where the worker was a cog in an industrialized wheel. Little attention was paid to the worker, and the researchers met with opposition in academia and industry. The study was fueled and ultimately funded by the idea that it would help industry find ways to boost productivity. However, as evident in their criticism of previous studies for ignoring the effects of work attitudes on the psychological and social being of the worker, it was clearly compelled by the motivation to improve the life and psychological well-being of the worker. Herzberg et al. (1959) set out to conduct their studies in the industrialized region of Pittsburg, Pennsylvania. In a follow-up, Herzberg (1966) set the framework for two-factor theory with an exploration of applicable theory from theology, philosophy, psychology, and sociology.

Herzberg et al. (1959) criticized the job satisfaction research of their time for a lack of comprehensive theory as a framework. They felt that the then-current theory failed to account for the "factors-attitudes-effects (F-A-E)" (p. 11) or the complexity of job satisfaction. Therefore, they used a backdrop of existing job satisfaction research and sociological and psychological theory to hypothesize that the factors that influenced job satisfaction differed from those that influenced dissatisfaction. Through an exploratory qualitative study, Herzberg et al. (1959) utilized semistructured interviews and thematic analysis to test their hypothesis and propose the two-factor theory. In the theory, those factors that contribute to satisfaction, termed motivational factors, were categorized as intrinsic factors (Herzberg, 1966; Herzberg et al., 1959). These factors included rewards that were within the perception of the employee. According to Herzberg (1966), these

motivational factors included “achievement, recognition, the work itself, responsibility, and advancement” (p. 72-73). Each of these factors has the potential to contribute to an employee’s feelings of self-actualization (Herzberg, 1966).

The factors that influenced dissatisfaction were termed hygiene factors and were described as factors outside of employee control. Herzberg (1966) identified the hygiene factors as “company policy and administration, supervision, salary, interpersonal relations, and working conditions” (p. 74). These factors influence job dissatisfaction as the worker is motivated to avoid unpleasantness in the workplace (Herzberg, 1966).

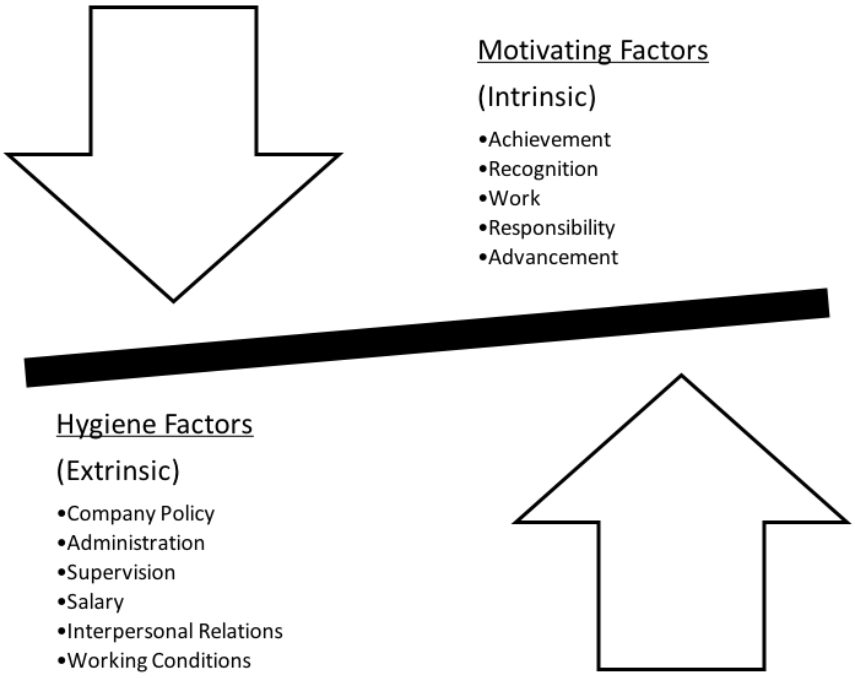

Figure 1. Motivation and Hygiene Factors According to Herzberg’s Two-Factor Theory

It is important to consider that the two-factor theory did not maintain that satisfaction or dissatisfaction were mutually exclusive. The theory rather explained that

the factors were separate. It was possible for an employee to respond positively to motivational factors but still respond negatively to hygiene factors or for a highly-motivated employee to more willingly tolerate dissatisfying conditions (Herzberg et al., 1959). Two-factor theory did not address overall job satisfaction but attempted only to categorize those factors that influenced it.

In the years since, the two-factor theory has been used to frame a considerable amount of studies in a plethora of disciplines. A simple search for two-factor theory, using Google Scholar resulted in just under 95,000 scholarly articles mentioning the theory. When the search was limited to the last 5 years, it still yielded 17,100 results. Kalleberg (1977) was not the only critic of two-factor theory, but in 2013, Malik and Naeem conducted a nonsystematic meta-analytical review of 23 theories, critiques, and arguments in support of the theory. Malik and Naeem utilized this analysis to conclude that the theory's endurance and applicability lies in its simplicity.

In a study utilizing data from The Teacher 2000 Project in Australia, Dinham and Scott (1998, 2000) used their findings to springboard off two-factor theory and suggest that in teaching, there was a third category of factors influencing teacher job satisfaction. They called this third category "extrinsic teacher dissatisfiers" and defined it as societal perceptions and attitudes concerning teachers and education (Dinham & Scott, 2000, p. 393). Their work found these to influence teacher dissatisfaction and even interfere with motivational factors such as the intrinsic rewards of teaching (Dinham & Scott, 2000). However, as with much of the literature, substitute teachers remain absent from this analysis and such absence made it imperative to carefully select a guiding theory.

In examining and choosing a theory to guide this study, it was important to consider the nature of the work being investigated. As Locke and Latham (2004) suggested, perhaps it is not that each motivational theory has flaws, but merely that each has its own unique area of focus. Although considered, job satisfaction theory from Kalleberg (1977) was not chosen to guide this study due to its focus on control of work. Kalleberg (1977), in line with Ingersoll (2003), placed a large emphasis on control. Ingersoll (2003) argued that teachers are engaged in the push and pull for control of decision making in schools. This often puts teachers in charge of instituting rules, curricula, and policies that they usually have little to no part in the decision-making process to adopt. As substitute teachers, although important to the educational process, do not operate a large locus of control in the school system, it seemed ill-advised to use Kalleberg (1977) for theoretical guidance.

Literature Review Related to Key Variables

The literature search strategy and theoretical framework provide a lens through which the critical elements that relate to this study were identified and analyzed. The following sections highlight the important aspects of the existing literature as they concern this study.

Teacher Absences

In discussing the work of substitute teachers, it is imperative to consider teacher absences. According to the US Department of Education Office of Civil Rights (2016), 6.5 million students go to a school where more than 50% of their teachers were absent 10 or more days per school year. The Office of Civil Rights found that 27% of teachers

were absent for ten days or more per school year. But, as Kronholz (2013) cautioned, there was no difference in the reporting of an absence for sickness or one for professional development or supervision of students. In the case of a field trip, a teacher may still be instructing and supervising students outside of their normal classroom assignment, yet it is still reported as an absence.

Some attempts in the literature have been made to connect teacher absences with student achievement. In one of the more extreme cases, Moletsane, Juan, Prinsloo, and Reddy (2015) examined the experience of principals in poor, rural, South African schools as it related to implementation and fallout from teacher absences. Without qualified substitutes or any system established to fill vacancies, principals in these schools reported being left to distribute, cancel, or find supervision for affected students. Many of the principals agreed that although teacher absences were sometimes necessary, they had a dramatic negative impact on the education of their students. Another attempt by Tingle et al. (2012) found that schools with higher incidences of teacher absences demonstrated lower student achievement. However, this study, as with any, could not determine causation from correlation.

Similarly, Ervasti et al. (2012) found a relationship between student behavior and teacher absences in Finnish schools. Students were more likely to vandalize school property when the teacher was on a short-term absence (less than 3 days). In addition, the study (Ervasti et al., 2012) found that in schools with higher incidence of bullying, teachers were out for more short-term absences (less than 3 days) than in schools that had lower incidences of bullying, perhaps suggesting that the school environment and teacher

absences are interdependent. Additionally, schools with high rates of vandalism, bullying, and truancy had short term teacher absences 1.7 times more frequently than schools with lower incidences of such student behavior (Ervasti et al., 2012). Although directionality or causality cannot be determined from correlation alone, this study may suggest that environmental improvements have the potential to impact both problems, student behavior and teacher absence.

It seems a logical conclusion that any employee at some point will be unable to attend work. Legitimate absences could be necessary to recover from illness, attend to medical emergency, or deal with family trauma. While many reader comments with articles in popular media seem to vilify teacher absences, there is always a comment that cites teachers coming to work even when they are sick to avoid absences. A German study by Dudenhöffer, Claus, Schöne, Letzel, and Rose (2017) explored the frequency of sickness presenteeism (SP), or the attendance at work even though illness suggested a sick day was warranted. More than half (56%) of the teachers surveyed by Dudenhöffer et al. (2017) reported incidence of SP. Furthermore, the highest rates of SP occurred in participants who reported environmental factors including poor supervisory relationships, poor collegial relationships, overwhelming workloads, low levels of support from parents, lack of recognition, and lack of autonomy. Interestingly, much of the research cited in the study was conducted in European and Scandinavian countries, and one such study had demonstrated that SP was harmful to employee health (Kivimāki, Head, & Ferrie, 2005).

Ultimately, investigating teacher absences leaves many unanswered questions. Regardless of the controversy over the legitimacy of teacher absences, the effect of teacher absences on student behavior and achievement, and the potential harm for teachers who engage in SP, one basic fact remains: When teachers are absent, substitute teachers are required.

Teacher Shortages

The current state of the supply and demand for teachers in the United States is a complex web of confusing, if not conflicting data. The Bureau of Labor Statistics (2015a) projected job growth in education as 8% through 2024. With growth compared to other occupations as slightly above average, it would make sense that any supply and demand issues would be a result of insufficient supply of qualified candidates. However, Cowan, Goldhaber, Hayes, and Theobald (2016) argued that the population of teacher candidates have grown in accordance with student population since the 1980s. According to the US Department of Education, Office of Post-Secondary Education (2015), enrollment nationwide declined from 2008-2013 by 31%, well ahead of the reported 3% decrease in post-secondary education during that same time period.

While the national decline in teacher preparation enrollment appeared definitive, the state specific data illustrated a more complex situation. According to the US Department of Education, Office of Post-Secondary Education (2015), Pennsylvania ranked 4th highest in the nation with 5% of post-secondary students enrolled in teacher preparation programs. Indiana experienced a 30% decrease in teacher preparation program enrollment (Glackin & Adams, 2016). While, in the midst of a teacher shortage

in Arizona, Tirozzi, Carbonaro, and Winters (2014) suggested the shortage was a side-effect of high teacher turnover. Interestingly, in light of Tirozzi et al. (2014), Arizona ranked 2nd with 8% enrollment (US Department of Education, 2015).

The contradicting data suggested, as Cowan et al. (2016) argued that shortages exist in specific subject areas and school specific settings, including urban, rural, and schools with a large population of economically disadvantaged students. In an analysis of the production of teacher preparation program graduates in the state of Washington and the demand for teachers in specific subject areas, Goldhaber, Krieg, Theobald, and Brown (2014) found that in the areas of most need (STEM and Special Education), teacher preparation programs produced the least graduates.

In a US Department of Education report detailing specific subject areas in which each state reported shortages, for the school year 2014-2015, shortages in 14 subject areas were reported. For the school year 2015-2016, the report states, "The Commonwealth of Pennsylvania reported that no significant teacher shortage areas exist for the year indicated." (p. 138). However, for the school year 2016-2017, once again, shortages in 14 subject areas were reported. Overlapping subject areas from the 2014-15 and 2016-17 school years included: English as a Second Language, Hearing Impaired, Special Education, Speech and Language, and Vocational Subjects. Upon examination of the districts reporting, this data focuses on urban and suburban districts in the geographical region of Philadelphia. The report does not contain data from other geographical regions of Pennsylvania.

With the current state of teacher shortages difficult to determine, there was evidence that, although subject to state and geographical differences, it seemed teacher shortages did exist. If a district struggled to find teachers, would it also struggle to find substitute teachers? To find an answer, it was first imperative to understand substitute teaching.

Substitute Teaching

Little research about the work of substitute teaching exists in the literature. From the existing research, we know that the job itself can be stressful (Bletzer, 2010; Driedger-Enns, 2014; Gershenson, 2012; Chia-Lin & Wei-Wen, 2017; Vorell, 2012;), yet rewarding (Bletzer, 2010). Duggleby and Badali (2007) found that many of the substitute teachers they interviewed entered the profession as a stepping-stone to securing full-time, permanent employment in a teaching position. Additional perks to the position were: flexible scheduling, no lesson-planning responsibilities, the ability to network with educators and administrators, and the opportunity to gain classroom experience (Duggleby & Badali, 2007).

The position does, however suffer from the negative perceptions. Substitutes reported that the job was isolating and provided no opportunity for professional development, leading to good substitutes being confined to the position, instead of being recognized and promoted to a permanent position (Duggleby & Badali, 2007). Cardon (2002) found that negative perceptions of substitute teachers were highly damaging to the professionalism with which substitute teachers were regarded. The most damaging perceptions included that the low pay and low hiring standards lead to low quality

substitute teachers (Cardon, 2002). Lassman (2001) suggested it may even be damaging and de-professionalizing to use the name "substitute teacher" as it may inherently suggest a substandard replacement.

Both pay and hiring standards for substitute teacher vary by state. According to the Bureau of Labor Statistics, in 2015, 626,750 were employed as substitute teachers. Substitute teachers, nationally, earned a mean annual salary of $29,630 and a median annual salary of $26,830. Table 1 provides a comparison of the national data, the highest and lowest paying states, and Pennsylvania.

Table 1

State Comparison of Bureau of Labor Statistics Employment and Wage Data for Substitute Teachers

		Annual wage	
	Persons employed	Mean	Median
Alaska	1,860	$45,900	$41,380
Pennsylvania	14,790	$28,320	$27,610
Alabama	14,790	$17,670	$17,890
National	626,750	$29,630	$26,830

Interestingly, Alabama, the lowest paying state, employed the same number of substitute teachers in 2015 as did Pennsylvania. As its proximity to the national mean would predict, Pennsylvania ranked 21st in terms of mean annual wage for substitute teachers.

Just as wage varies by state, so do educational requirements. The National Education Association (2015) provides a state-by-state breakdown of the state requirements for substitute teachers. Some states require that substitute teachers have a

teaching certificate while others require a college degree. Others still, do not have any consistent state requirements and those decisions are left up to individual districts. In many, the only requirement was to be 18 years or older. There is also great variation and a general lack of training programs for substitute teachers (True et al., 2011).

One of the most unique features of the work of substitute teaching is the aspect of contingent work. While staffing systems vary from district to district, they can include a district coordinator, telephone-based, web-based, or staffing agency to schedule assignments (Coverdill & Oulevey, 2007). Day-to-day substitute teaching provides the employee with the flexibility to accept or reject assignments based on their personal needs or wants (Coverdill & Oulevey, 2007). Gershenson (2012, 2013) has explored the reasons that substitute teachers accept or reject job offers. The most influential factors were pay, commute, and school performance (Gershenson, 2012). The temperature even had an impact, as Gershenson (2013) found that colder temperatures meant a substitute was less likely to accept an assignment.

Job Satisfaction

The most commonly cited definition of job satisfaction came from Locke (1976) and simply defines it as, "a pleasurable or positive emotional state resulting from the appraisal of one's job" (p. 1304). In the suggestion that job satisfaction was an emotional state, Locke (1969, 1976) insinuated that such state may have a far-reaching effect on the employee. When considered in light of the work of Diener (1984) it seemed there was a compelling argument that modern job satisfaction has implications beyond the allure of production boosts in the 1930's job satisfaction theory. Perhaps the

satisfaction and happiness of the modern worker was paramount to the happiness of the modern human in the post-industrialized world.

It was important to first acknowledge the importance of job satisfaction from an organizational standpoint. Several studies suggest that a satisfied employee is less likely to leave an organization (Aydogdu & Asikgil, 2011; Huang & Su, 2016; Naderi Anari, 2012). Studies concerning teacher job satisfaction had similar findings (Liu, 2012; McInerney, Ganotice, King, Marsh, & Morin, 2015; Rhodes, Nevill, & Allan, 2004; Wang, Hall, & Rahimi, 2015). Hughes (2012) found that teachers who reported satisfaction with their compensation were two times as likely to indicate the intention to retain their current employment.

Arnup and Bowles (2016) studied job satisfaction and resiliency as they related to the intentions of Australian teachers to leave the occupation. The study utilized the Teacher Job Satisfaction Questionnaire (TJSQ) as well as a reliable and valid measure of resiliency in an online survey with 160 voluntary respondents. Arnup and Bowles (2016) found the highest intention to leave occurred in those with 5-10 years' experience and lower levels of job satisfaction and resiliency. In addition, those who reported high intention to leave also reported lower job satisfaction than those who reported little or no intention to leave. Other factors identified as positive contributors to retention of teachers were familial cooperation, student cooperation, and workload (Hughes, 2012), although Xia, Izumi, and Gao (2015) found these to be slightly less influential than the aforementioned factors. In a qualitative study of current and retired Norwegian teachers, Skaalvik and Skaalvik (2015) found that teachers identified their students, variable

working environment, opportunity for collaboration, and independence as contributing to their job satisfaction.

Arnup and Bowles (2016) pointed out that job satisfaction plays a significant role in teachers' intentions to leave the occupation and that school administrations concerned about teacher attrition should focus on the improvement of job satisfaction of teachers. Furthermore, the factors identified as influential on job satisfaction are within the realm of control of the districts, as opposed to resiliency which is dependent on the individual employee. Arnup and Bowels (2016) highlight the importance of job satisfaction in the case of districts experiencing high turnover or shortage. Their isolation of job satisfaction as a contributing factor in turnover intention of teachers is transferable to substitute teachers and illustrates the potential influence job satisfaction may play in the current substitute teacher shortage.

Many of the job satisfaction trends carry-over amongst different educational environments although there are some differences amongst them. Larkin, Brantley-Dias, and Lokey-Vega (2016) confirmed that K-12 educators teaching in an online environment were more likely to retain employment when they reported higher levels of job satisfaction. Teachers in districts provided merit-based pay reported job satisfaction at comparable levels to those working in districts without a merit pay system (Guis, 2013). In addition, private school teachers reported higher levels of job satisfaction than public school teachers (Guis, 2015).

Similarly, Xia et al. (2015) utilized data from the School and Staffing Survey to compare the job satisfaction of teachers in alternative schools to those in traditional

public school settings. Similar to the proposed study, Xia et al. (2015) set out to explore the job satisfaction of a group left out of the existing research pool. During analysis, a significant degree of variance was apparent between schools, perhaps recognizing the potential of influence of school level factors, reminiscent of Dinham and Scott's (1998, 2000) proposal of a three-factor model. As a result, school level variables were controlled for during statistical analysis. The results indicated the job satisfaction of teachers in alternative schools was lower than those in traditional public school settings (Xia et al., 2015). The most influential factors on the job satisfaction of alternative school teachers were, "Administrative support, career and working conditions, staff collegiality, and positive student behavior" (p. 192). In agreement with Arnup and Bowels (2016), other studies suggest that administrative attention to and improvements in these areas would invariably result in an increase in teacher job satisfaction (Grissom, Viano, & Selin, 2016; Tiplic, Brandmo, & Elstad, 2015; Xia et al., 2015). Studies such as these illustrate the importance of identifying the factors influencing job satisfaction as an important first step to working towards a hearty and sufficient workforce.

In a similar acknowledgement of Dinham and Scott's (1998, 2000) school level factors, You, Kim, and Lim (2017) investigated the effect of both personal characteristics and school-level factors on the job satisfaction of middle school teachers in Korea. Their quantitative survey included items that concerned demographics, job satisfaction, efficacy, and school level variables. Within their results, You et al. (2017) found school level variables to have a significant impact on teacher job satisfaction. Although the study was limited to Korean middle school teachers, it did provide a powerful

compliment to Arnup and Bowels (2016) in suggesting that school level changes could significantly impact job satisfaction. Similarly, Holzberger, Philipp, and Kunter (2014) found that the school environment played a significant role in addressing the intrinsic needs of German, secondary mathematics teachers. This in-turn influenced teacher self-efficacy, teacher- student relationships, and instructional outcomes (Holzberger et al., 2014).

In addition to school level factors, it appears that subject matter and student population also influence job satisfaction. Luckner and Dorn (2017) found a high degree of reported job satisfaction amongst special education teachers who worked with students who were deaf or hard of hearing. Blackburn, Bunch and Haynes (2017) studied Agricultural teachers in Louisiana. Their findings indicated a high degree of job satisfaction even though the subject of Agriculture has historically suffered a shortage of qualified educators (Blackburn et al., 2017).

In another study concerned with the job satisfaction of a specific population, Soodmand, Afshar, and Doosti (2016) investigated the job satisfaction and contributing factors in Iranian teachers of English. In affirmation of the Two-Factor Theory (Herzberg et al., 1959), respondents indicated they were most motivated by intrinsic factors and demotivated by extrinsic factors. Many of these demotivating, extrinsic factors were at the school-level. They included principal leadership and lack of professional development. In addition, Soodmand et al. (2016), similarly to the aforementioned negative perceptions of substitutes (Cardon, 2002; Duggleby & Badali, 2007; Lassman, 2001) found social perception of teaching to play an important role in

teacher job satisfaction. As there is limited research in this regard on substitute teachers, it is difficult to say just how social perception impacts substitute teachers. However, substitute teachers work in the same environments and under a similar capacity as regular teachers, and it is reasonable to assume that many of the same phenomena regarding social perception exist. In these studies, the negative social perception played into teacher dissatisfaction (Cardon, 2002; Duggleby & Badali, 2007; Lassman, 2001) while other studies have identified positive social perception and recognition as a positive contributor to satisfaction (Bolger & Nir, 2012; Koedel, Li, Tan, & Springer, 2017; Shoshani & Eldor, 2016). In a study specific to substitute pre-school teachers in Taiwan, Chia-Lin and Wei-Wen (2017) found that substitute teachers respond negatively to over-working and an unfriendly working environment. However, factors having a positive influence and moderating effect on job stress and burnout included collegial and managerial support, control, and recognition (Chia-Lin & Wei-Wen, 2017).

Koedel, Li, Tan, and Springer (2017) found that positive performance evaluations improved teacher job satisfaction and suggested that recognition could play an important role in improving satisfaction. Similarly, Bolger and Nir (2012) found status and recognition to be predictors of positive teacher job satisfaction. In a 2016 study, Shoshani and Eldor examined the relationships between teacher learning climate, job satisfaction, commitment, and subjective well-being and connected it to the provision of positive learning environments for students and therefore greater opportunity for student success. Utilizing a written questionnaire comprised of several different measures, Shoshani and Eldor (2016) surveyed 273 Israeli teachers. The significant results

indicated that learning climate had a positive impact on teacher job satisfaction, commitment, and well-being. The results also provided evidence to support the conclusion that such effects have a positive impact on the students' engagement and achievement in school.

Akkaya and Akyol (2016) investigated the connection between teachers' locus of control and their job satisfaction. The study found a significant relationship between locus of control and job satisfaction, including a positive relationship between internal locus of control, or the perception that they can make changes, and satisfaction as a whole. Rooney (2015) suggested that the trend of high-stakes testing was further diminishing teachers' curricular control and in turn reducing the effects of intrinsically motivating factors, although it is likely that teacher self-efficacy played a mediating role in reducing such stressors (Von der Embrose, Sandilos, Pendergast, & Mankin, 2016). In this age of accountability, Cucchiara, Rooney, and Robertson-Kraft (2015) found that efforts in school reform had an effect on teacher job satisfaction. The direction, positive or negative, was dictated by teacher perception of school level factors including climate and administrative support (Cucchiara, Rooney, & Robertson-Kraft, 2015). Other school level initiatives can impact teacher job satisfaction, as confirmed by Collie, Shapka, Perry, and Martin (2015), who found a connection between teacher perception of social emotional learning (SEL) and teacher job satisfaction. The more confident and supported a teacher felt in implementing an initiative, in this case SEL, the higher levels of job satisfaction they reported (Collie et al., 2015). Echoing such findings on the importance of administrative support, Aldridge and Fraser (2016) found that teacher perception of

their relationship with the school principal had a significant impact on their self-reported job satisfaction.

There are studies examining teachers and administration in other countries. For example, in their study of Iranian teachers, Khany and Tazik (2016) found an indirect relationship between the teachers' perception of administrative trust and job satisfaction. However, as Khany and Tazik (2016) note, within the structure of the Iranian educational system, teachers often work in multiple schools with multiple supervisors. This was also found in a study in a quantitative survey study of Indian teachers and principals. Dutta and Sahney (2016) found that principals had only an indirect effect on teacher job satisfaction. However, their findings indicated that principal leadership improved school climate which, in turn, impacted teacher job satisfaction (Dutta & Sahney, 2016). In a correlational study, Olcum and Titrek (2015) surveyed teachers and school administrators in Turkish schools to examine the relationship between teacher job satisfaction and administrative decision making. The study utilized the Minnesota Satisfaction Questionnaire (MSQ, $\alpha = .815$) and a pre-existing instrument concerning decision making styles ($\alpha = .898$) (Olcum & Titrek, 2015). Statistical analysis showed a high degree of job satisfaction was reported by both groups. In alignment with Two-Factor Theory (Herzberg, 1966; Herzberg et al., 1959), sources of satisfaction included administrative support, daily activities, and helping others. While sources of dissatisfaction included compensation and limited opportunities for advancement (Olcum & Titrek, 2015). Linear regression analysis demonstrated a negative correlation between administrators

use of avoidant and spontaneous decision making and teacher job satisfaction (Olcum & Titrek, 2015).

Ingersoll (2006) found that schools were centralized organizations in a decentralized system. The push and pull for control of decision making in schools often put teachers in charge of instituting rules, curriculums, and policies that they usually had little to no part in the decision-making process of adoption. He found that the best performing schools allowed teachers a larger amount of control in decision making than lower performing schools. In agreement with Dinham and Scott (1998, 2000), Ingersoll also noted that the societal tendency to deprofessionalize teaching might contribute to this low degree of control allotted to most teachers. Regardless of the cause, Ingersoll (2006) poignantly concluded, "The data suggest a clear but difficult lesson: If we want to improve the quality of our teachers and schools, we need to improve the quality of the teaching job (p. 249).

In addition, older studies were investigated, as the current research was limited. Some of these older studies align with the theory and methodology in this study. In one instance, Iiacqua and Schumacher (1995) utilized quantitative survey research to test the validity of two-factor theory. Although the population studied was in higher education, differing from this study, Iiacqua and Schumacher (1995) did find empirical evidence to support Two-Factor theory. In a methodologically similar to this study, Landers, Alter, and Servilio (2008) utilized the Teacher Job Satisfaction Survey (TJSS) and an open-ended survey item to explore the relationship between teacher job satisfaction and student behavior. The open-ended item asked respondents to list specific student misbehaviors

that presented as challenging. Subsequent responses were categorized and allowed Landers et al. (2008) to examine the job satisfaction results within these categories. The results indicated that incidences of student disrespect to teachers had the most significant effect on the job satisfaction of high school teachers (Landers et al., 2008). Although the researchers caution that the study was limited by a small sample size, the results align with newer research (Hughes, 2012; Xia et al., 2015) indicating that students may play a role in teacher - and therefore also substitute teacher - job satisfaction.

Summary and Conclusions

First and foremost, the existing literature did little to inform about the work of substitute teachers, let alone a shortage of substitute teachers but inferences can be made from research on regular teachers. From studies concerning teacher shortages, it was unclear if there is a national pattern of teacher shortages. The 31% decrease in enrollment in teacher preparation programs between 2003 and 2013 as reported by the US Department of Education (2015) was especially concerning as it far outpaced the general decrease in post-secondary enrollment of 3% during the same period. Additionally, local shortages, including those limited to specializations, appeared in-line with such decreases but were inconsistently reported. Invariably, a school district that is not staffed appropriately would not function properly and student progress would suffer.

Projecting what seemed apparent in the case of teacher shortages, a substitute teacher shortage would take the detrimental effect one step further. It is clear that teacher absences effect student behavior (Ervasti et al., 2012) and student achievement (Tingle et al., 2012). In the absence of a substitute teacher, these effects could be amplified and

even more detrimental to students. Following Ingersoll's (2013) logic, improving the quality of our schools means improving the work of all those involved in the education of students, including substitute teachers.

With evidence for a connection between teacher job satisfaction and student achievement, Shoshani and Eldor (2016) place emphasis on the argument that teacher job satisfaction plays a significant role in the success of an educational system. However, while there existed an abundance of studies on job satisfaction in education none focused on substitute teachers. Therefore, the examination of research on job satisfaction focused on that of teachers in hopes that such an examination would draw parallels to the unstudied population. Many of the factors of job satisfaction evidenced in the literature may be even amplified in the case of the substitute teacher. As the research and statistics delineated, substitute teachers complete contingent work for lower compensation than regularly employed teachers, and work in varying school environments with a reduced locus of control in school decision making and worse professional development opportunities. In this diminished role, those factors described in Chapter 2 that play a role in job satisfaction of teachers, both motivational and hygiene, have yet to be identified for the population of substitute teachers. This study attempted to address this gap through an investigation of the job satisfaction of substitute teachers. The methodology of the study is detailed in the following chapter.

Chapter 3: Research Method

The purpose of this quantitative study was to assess the job satisfaction of substitute teachers with regard to differences between the two subgroups of certified substitute teachers and noncertified substitute teachers. I designed the study to determine if group membership (IV) had any effect on job satisfaction (DV) and to identify relevant factors influencing job satisfaction of substitute teachers. In addition, the data may help to ascertain the motivation and hygiene factors of the work of substitute teachers. In the following chapter I delineate the methodology of the study. I also discuss in detail and justify the setting, design, methodology, population, and research methods.

Research Design and Rationale

The survey I chose for this study provided data upon which conclusions could be made concerning the sample, and such conclusions may illustrate trends or attitudes within the population as a whole (Babbie, 1990). This study was designed in a similar fashion to that of Soodmand and Doosti (2016) as this study drew from two-factor theory (Herzberg et al., 1959) to isolate the job satisfaction and separate the motivation and hygiene factors. It was designed to answer the following research questions:

RQ1: What is the overall job satisfaction of substitute teachers?

RQ2: Does job satisfaction (DV) differ by subgroup membership (IV)?

RQ3: What are the motivation and hygiene factors of substitute teaching?

While Soodmand and Doosti addressed a specific population of teachers, Iranian secondary English teachers, this study investigated the population of substitute teachers. Both studies arose out of the need to learn more about a population absent from the

research pool. Both studies were also designed with a Likert scale job satisfaction survey that included open-ended responses for participants to identify specific motivation and hygiene factors.

As Spector (1997) suggested, survey research allows for a greater sampling of a population's job satisfaction than interviews or focus groups would allow. However, in agreement with the methodology of Soodmand and Doosti (2016), I added open-ended questions to ask participants to identify specific factors contributing to their satisfaction and dissatisfaction. Furthermore, as Soodmand and Doosti used statistical analysis to search for differences amongst demographic groups, this study analyzed data to investigate any differences in job satisfaction of different demographic groups and those who were certified substitute teachers and guest teachers. The single survey data collection allowed for a larger collection of data over a short amount of time. With the lack of current and available literature and the immediacy of the substitute teacher shortage at the research sites, such data and a timely analysis has the potential to hasten actions to improve the situation.

Methodology

Population

As demonstrated in Chapter 2, there is a lack of research concerning substitute teachers. The local shortages and lack of literature suggested that little was known about the work of substitute teachers. Through conversation with local school district administrators I determined that the substitute teacher shortage was not confined to one district or geographical region. Multiple accounts in popular media (Brandt, 2015;

Hofius Hall, 2016; Martines, 2017; Palochko, 2016) demonstrated other districts in the state were suffering similar difficulty in the recruitment and retention of substitute teachers. The selection of substitute teachers as the population for this study was guided by the local problem of the substitute teacher shortage. According to the Bureau of Labor Statistics (2015b), the population of substitute teachers in the state of Pennsylvania, was 14,790. Nationally, 626,750 (Bureau of Labor Statistics, 2015b) individuals were employed as substitute teachers. Sampling the entire population was impractical as it would have entailed contact with thousands of school districts and therefore would have created thousands of different school level variables to control for. This process would prevent a timely data collection and analysis, hindering any helpful information to districts suffering a shortage.

In order to sample from this population that included 75 potential respondents, a multisite sampling procedure was utilized to sample all substitute teachers in four school districts expressing difficulty recruiting and retaining substitute teachers. A power analysis using G*Power 3.1 was performed to estimate the sample size. With an $\alpha = .05$ and a power of .80, the projected sample size for an effect size of .4, was 52. Therefore, the projected sample size of 75 was adequate for the study. These four school districts serve similar student populations (see following section) and it was reasonable to conclude that they serve similar communities.

Sampling and Sampling Procedures

In addition to the primary study site discussed in Chapter 1, the setting for this study was expanded into three additional rural districts experiencing a similar shortage.

For ease of reference and to maintain confidentiality, these districts are referred to as North School District, South School District, East School District, and West School District. The districts are located in geographically similar areas, with adjacent boundaries in two counties in the state of Pennsylvania. As rural districts, each serves a number of small communities over a large geographical area. As a result, obtaining reliable census data for the local populations is extremely difficult. However, student enrollment data for each district is readily available from the state Department of Education for public view. The data provides a glimpse of the composition of the communities served by North, South, East, and West school districts. Table 2 displays a comparison of the public enrollment data for the districts.

Table 2

School Districts Comparison

	District			
Category	North	South	East	West
Size				
Number of schools	5	4	7	6
Grades	K-12	K-12	K-12	K-12
Square miles covered	327	169	196	425
Student enrollment	3044	1923	4658	2562
Student body				
American Indian/Alaskan Native	0.49	0.05	0.24	0.2
Asian	0.72	0.47	2.15	0.7
Black or African American	2.27	1.92	1.85	0.86
Hispanic (any race)	6.34	4.73	9.47	3.36
Multi-Racial	1.12	2.81	2.98	1.48
Native Hawaiian or other Pacific Islander	0.23	0.05	0.04	0.16
White	88.83	89.96	83.28	93.25
Female	48.78	48.93	47.49	47.7
Male	51.22	51.07	52.51	52.3
Special populations				
Economically disadvantaged	52.86	50.91	32.83	46.33
English language learner	0.2	0	0.45	0.47
Special education	19.09	12.32	14.3	18.46

To investigate the demographic similarity of the school districts, a one-way ANOVA was conducted using SPSS software. This test compared the demographic characteristics (DV) of each district (IV). To allow for the calculation of district means, the data was input by each school from each district. One-way ANOVA was selected because the dependent variable, demographic percentages, was measured at the ratio level and the independent variable included four groups. Each of these groups is

independent as a student cannot attend more than one school district. Using SPSS to analyze the data for outliers yielded seven outliers. All seven were removed from the data to ensure accurate statistical testing.

To test for normal distribution, I ran a Shapiro-Wilk test. Every category was normally distributed ($p > .05$) except American Indian Alaskan Native, Native Hawaiian Pacific Islander, and Economically Disadvantaged. When tested for homogeneity of variances, unequal variances ($p < .05$) were found in the following categories: Asian, Hispanic, Native Hawaiian Pacific Islander, and English language learner. SPSS was used to run a Welch ANOVA to account for the unequal variances in these categories. The results indicated that the districts have statistically similar populations in the following categories: multiracial ($F(3, 8.87) = 3.19$, $p = .078$); Native Hawaiian Pacific Islander ($F(3, 6.86) = 3.87$, $p = .065$); special education ($F(3, 8.37) = 3.17$, $p = .082$); female ($F(3, 9.07) = 1.56$, $p = .266$); and male ($F(3, 9.07) = 1.56$, $p = .266$).

In addition to the statistical evidence, the districts each share at least one common geographical boundary. According to the state Department of Education (2016), 2010 census data showed all four districts classified as rural. To further investigate, I used a ratio to compere the number of students per square mile. The results are presented in Table 3.

Table 3

Students per Square Mile

District	*Enrollment*	*Square miles covered*	*Students per square mile*
North	3044	327	9.3
South	1923	169	11.4
East	4658	196	23.8
West	2562	425	6.0

With the districts sharing comparable geography and relative similarity of student populations, and because all were classified by the state as rural districts, they were deemed appropriate for the purpose of this study.

The multistage sample for this survey was selected as officials from all districts cited difficulty recruiting and retaining substitute teachers. All districts used a web-based substitute teacher scheduling system and could communicate with substitute teachers via e-mail. Although the districts were chosen through convenience and geographic similarity, the sampling design included cluster sampling for the entire group of substitute teachers in each of the selected districts. This method did not employ stratification or other methods to limit the sample, as each district employed a low number of substitute teachers. While a random sample would be ideal (Creswell, 2009, 2012), nonprobability sampling was necessary to examine the job satisfaction of those working in rural Pennsylvania school districts that were experiencing a substitute teacher shortage.

The sampling frame for this study was substitute teachers working in these four rural Pennsylvania school districts. Potential participants meeting these criteria were

invited to complete the survey. Participants were not excluded on the basis of their responses. The sample size for this study was limited by the district selection criterion. As these districts were experiencing a current substitute teacher shortage and were parallel in demographic composition and geographic location, they were selected as part of the sample.

Procedures for Recruitment, Participation, and Data Collection

Participants were recruited through a digital invitation to complete a survey. The digital invitation was sent by e-mail to all currently employed substitute teachers in the North, South, East, and West School Districts. E-mail allowed for quick contact with a larger sample of substitute teachers than any other contact method would allow. E-mail recipients remained confidential, as did all participants. Participation in the survey entailed clicking on a link in the email to be redirected to the survey. The third-party survey website, SurveyMonkey, was used to administer the survey in digital format. Utilizing a third-party survey website allowed for a quick transcription of the survey to digital format. It provided simplified tabulations of survey data should technical difficulties arise. The survey remained open for a specified amount of time of 4 weeks and three reminder e-mails were sent, once a week, to encourage further participation. Both e-mails contained information on informed consent. Participation in the survey was completely voluntary and could be discontinued at any time.

Instrumentation

The instrumentation for this study included a combination of two pre-existing surveys. As the research was limited, there was no instrumentation that directly

addressed substitute teachers. In addition, it was important that the instrumentation selected addressed and helped to identify motivation and hygiene factors. As this study was designed to provide timely and actionable data to school districts with shortages of substitute teachers, pre-existing well validated surveys were chosen: a) The Teacher Satisfaction Scale (Ho & Au, 2006), b) the Job Satisfaction Survey (Spector, 1985, 1997). Both instruments are described in detail in the following sections.

The Teacher Satisfaction Survey. The Teacher Satisfaction Scale (Ho & Au, 2006) asks participants to agree/disagree with the items on a 5-point Likert scale (1 = strongly disagree, 5 = strongly agree). Scores were operationalized as numerical values and total scores utilized to assign a numerical value to relative job satisfaction or dissatisfaction. All items are worded positively and are therefore scored as is with values of 1-5. Ho and Au (2006) designed the instrument through adaptation of the Life Satisfaction Scale (Diener et al., 1985). The Teacher Satisfaction Scale (TSS) was designed to measure teacher satisfaction with attention paid to the cognitive domain of job satisfaction (Ho & Au, 2006). Ho and Au found that other measures of job satisfaction neglected the connection between job satisfaction and an individual's subjective well-being (Diener et al., 1985). They criticized other measures of job satisfaction for relying too heavily on respondents' affective responses and for containing too many items. As a result, they designed the TSS to be brief and provide a global measurement of satisfaction.

Upon development of the survey (Appendix B), Ho and Au (2006) utilized a sample of 202 teachers to test the TSS for criterion-referenced validity. For comparison

they utilized Warr's Job Satisfaction Scale (WJSS) (Warr, Cook, & Wall, 1979); the Brayfield-Rothe Job Satisfaction Scale (BRJSS) (Brayfield & Rothe, 1951); and the Job Descriptive Index, (Smith, Kendall, & Hulin, 1969). Ho and Au (2006) justify their choice of these instruments due to their reliability, validity, and historical significance within job satisfaction research. Results of the study found the TSS to be reliable and valid (5 items, $\alpha = .77$, test-retest reliability of .76, $n = 202$). In a criterion-referenced validity analysis, conducted in the same study (Ho & Au, 2006), the TSS was found to measure psychological stress, self-esteem, and teaching stress more accurately than those instruments used for comparison (WJSS and BRJSS).

Job Satisfaction Survey. The Job Satisfaction Survey (JSS) divides job satisfaction into nine different subcategories. Each of these categories was analyzed for reliability and validity and provides a sub-score for each category. While the survey provides a numerical score for overall job satisfaction (36 items, $\alpha = .91$, test-retest reliability of .71, $n = 43$), Spector (1985, 1997) cautions that this measure cannot be used as an objective measurement of job satisfaction or dissatisfaction but can be utilized as a relative indicator and was useful for comparison. This numerical score, a total of all items, was utilized to make comparisons across demographic groups. The JSS asked respondents to rate their agreement with 36 statements using a six-point scale ranging from Disagree Very Much (1) to Agree Very Much (6). Negatively worded items (2, 4, 6, 8, 10, 12, 14, 16, 18, 19, 21, 23, 24, 26, 29, 31, 32, 34, 36) were reverse scored in accordance with the scoring guidelines. A higher score on a negatively worded item indicates a higher degree of disagreement with that item. In addition, the JSS is broken

into nine subscales allowing for the totaling of subscores in each subcategory. The following section provides a description and information on the reliability and validity of each subscale.

The nine subcategories of the Job Satisfaction Survey. The subcategories of the JSS are as follows:

1. Pay (4 items, $\alpha = .75$, test-retest reliability of .45, n=43). Pay was defined by Spector (1997) as characteristics that concern compensation. Pay was found to positively correlate with job satisfaction (Judge, Piccolo, Podsakoff, Shaw, & Rich, 2010), but was not the only contributing factor.
2. Promotion (4 items, $\alpha = .73$, test-retest reliability of .62, n=43). Promotion was defined by Spector (1997) as opportunity for advancement. For a substitute teacher, promotion could include a long-term or permanent position. Closely related to pay, promotion was found to contribute to job satisfaction (Kosteas, 2011; Malik, Danish, & Munir, 2012). In the absence of an actual promotion, the perception of a possible promotion was found to positively influence job satisfaction (Kosteas, 2011).
3. Supervision (4 items, $\alpha = .82$, test-retest reliability of .55, n=43). Supervision was defined by Spector (1997) as concerning direct supervision. Multiple studies have examined the effect of supervision on job satisfaction (Ilgan, Parylo, & Sungu, 2015; Mathieu, & Babiak, 2016). Abusive or aggressive supervision can have a significant negative effect on employee job satisfaction (Mathieu, & Babiak, 2016). In the case of teachers, a principal's supervision

had the potential to significantly impact teacher job satisfaction, and supervision could accurately predict job satisfaction (Ilgan, Parylo, & Sungu, 2015).

4. Fringe benefits (4 items, $\alpha = .73$, test-retest reliability of .37, n=43). Fringe benefits were defined by Spector (1997) as benefits other than pay.
5. Contingent rewards (4 items, $\alpha = .76$, test-retest reliability of .59, n=43). Contingent rewards were defined by Spector (1997) as non-monetary recognition. Such rewards were related to higher levels of job satisfaction, especially for those employees in lower-paying positions (Tremblay, Vandenberghe, & Doucet, 2013).
6. Operating conditions (4 items, $\alpha = .62$, test-retest reliability of .74, n=43). Operating conditions were defined by Spector (1997) as the rules and procedures that govern an organization. Such factors were found to influence job satisfaction (Sanglim, & Sungeun, 2016).
7. Coworkers (4 items, $\alpha = .60$, test-retest reliability of .64, n=43). Coworkers were defined by Spector (1997) as those with which an employee works. Sanglim and Sungeun (2016) found employee interactions with others were influential in employees' reported job satisfaction.
8. Nature of work (4 items, $\alpha = .78$, test-retest reliability of .54, $n = 43$). Nature of work was defined by Spector (1997) as the duties and type of work actually required.

9. Communication (4 items, $\alpha = .71$, test-retest reliability of .65, $n = 43$). Communication was defined by Spector (1997) as the communication taking place within the organization.

Demographic survey items. Nominal and ratio scales concerning the respondents' demographics were added to the instrument (Appendix E). They solicited information about a respondent's gender, age, experience, education, and type of employment (noncertified substitute teacher or certified substitute teacher). Data from such questions allowed for analysis based on demographic group membership. Nominal scales were utilized to ascertain a respondent's gender, education, type of employment, and school district. Ratio scales were employed in the items regarding age and experience.

Open-ended survey questions. In order to gather data on the motivation and hygiene factors of substitute teaching, two open-ended questions were added to the instrument (Appendix F). These questions asked respondents list the most satisfying elements of the job and list the most dissatisfying elements of the job. Open-ended questions were chosen as the responses were not yet known and there may be an unlimited number of responses.

Data Analysis Plan

Data analysis in the study was a multi-stage process. First the survey data was scored and recorded. The responses to the open-ended questions were compiled. For the first research question, concerning the overall job satisfaction level of substitute teachers working in rural, Pennsylvania districts, descriptive statistics, including mean, median,

mode, range, variance, standard deviation, and relative standing, were utilized to examine results. Creswell (2012) suggests the use of descriptive statistics to aid in illustrating trends and making comparisons to others.

For the second research question, statistical analysis, utilizing IBM SPSS Statistics version 24 software, was conducted to test the hypotheses. To investigate differences in job satisfaction between certified and noncertified substitute teachers, ANOVA was utilized to examine the effect of group membership (IV) and job satisfaction (DV). ANOVA was used to test the following hypotheses: H_o: Certified substitute teachers' job satisfaction does not significantly differ ($p = .05$) from noncertified substitute teachers'. H_a: Certified substitute teachers' job satisfaction is significantly higher ($p = .05$) than noncertified substitute teachers'. ANOVA was selected as it is appropriate to analyze a categorical independent variable and a continuous dependent variable (Creswell, 2009, 2012). In addition, it allowed for group comparisons.

For the third research question concerning the identification of motivation and hygiene factors in substitute teaching, as open-ended responses were gathered, thematic analysis was necessary. Microsoft Excel was utilized to transcribe and organize responses. Responses were hand-coded and thematically analyzed to explore the existence of any patterns or frequent occurrences.

Threats to Validity

As the survey is only administered once, such threats to internal validity as history, maturation, regression, and mortality are avoided. The researcher had no

interaction with participants other than the electronic invitation to complete the survey, helping to avoid interaction as a threat to validity. Although the researcher was an employee of one of the school districts, she held no supervisory position and did not work directly with those in the sample.

To help control for external validity, care was taken to make participation in the survey easy for participants. The resulting higher response rate may help promote the generalizability of the study (Creswell, 2012). To help control setting threats to external validity, demographic items were added to the survey, allowing potential covariates, such as school district, to be controlled. As this study focused on a specific geographic area, external generalizability was minimal. However, with such a significant local problem, and a lack of literature on the subject of substitute teachers the study was inherently necessary. Future research should focus on moving towards a more generalizable model, or surveying in other geographic areas for comparison. While experimental designs were considered in attempt to increase generalizability and limit threats to external validity, access to the population was limited and required a multistage sampling approach.

To avoid threats to statistical conclusion validity, even though the study was limited by a small sample size, care was taken to select reliable and valid instrumentation. In addition, collection of demographic information from survey respondents allowed for statistical control of mediating or extraneous variables. Care was taken to select appropriate statistical tests. Any limitations of the study will be discussed in Chapter 5.

Ethical Procedures

As this study is not experimental and involves attitudinal measures, there are no ethical concerns about withholding any treatment from a group. Informed consent was provided, via email, to all participants. Participation was anonymous and could be discontinued at any time. Survey Monkey, the third-party survey website, has extensive security features, and maintained the anonymity of participants. At no time was the identity of the respondent shared or connected with their responses. Contact information for the researcher was provided in case a respondent had concerns. If a respondent chose to discontinue participation, their responses were discounted and discarded. All data was maintained electronically, and any printed material containing data was maintained under lock and key and be destroyed upon study completion. Any electronic files were maintained under password protection.

The researcher held no supervisory position over potential participants. There is the possibility that the researcher was known by potential participants, but any contact would be incidental. There were no inherent safety risks in completing the survey. Respondents were only asked to respond to basic demographic questions and questions concerning their attitude regarding their employment as a substitute teacher. Before the study was conducted, approval from the Walden University Institutional Review Board (IRB) was acquired. After approval was granted the research was carried out with integrity to the processes and procedures described within this document.

Summary

This causal-comparative study employed survey research to gain information on a population of substitute teachers working in rural Pennsylvania school districts experiencing difficulty recruiting and retaining substitute teachers. A multi-stage sampling procedure invited substitute teachers in rural Pennsylvania school districts to complete an electronic survey regarding their job satisfaction. The electronic survey was comprised of two pre-existing reliable and valid instruments, basic demographic questions, and two open-ended questions. Voluntary participation was solicited via email containing information on the study and was anonymous. Participation could be discontinued at any time. Although there were no safety risks to completing the survey, steps were taken to protect the confidentiality of responses. The study was conducted only after IRB approval was granted. The following chapters will discuss the data, analysis, and results of the study after it is conducted.

Chapter 4: Results

The purpose of this quantitative study was to assess the job satisfaction of substitute teachers with regard to differences between the two subgroups of certified substitute teachers and noncertified substitute teachers. The study was designed to answer three research questions. The first was to quantify the job satisfaction of substitute teachers. The second was to determine if there was a difference in the job satisfaction of certified and noncertified substitute teachers. This included a test of the hypothesis that certified substitute teachers were more satisfied than noncertified substitute teachers. Finally, the study was designed to determine if group membership (IV) had any effect on job satisfaction (DV) and to identify relevant factors influencing job satisfaction of substitute teachers. In addition, the data may help to ascertain the motivation and hygiene factors of the work of substitute teachers. In the following chapter I discuss the data collection procedures, results, and subsequent analysis of the data collected.

Data Collection

I conducted data collection in two phases. The first phase of data collection began on November 7, 2017 and concluded on December 8, 2017. This phase included sampling in North and South School Districts. Using the procedures described in Chapter 3 of this document, the survey was forwarded to substitute teachers in each district by a district administrator. The district administrator for North School District reported forwarding the survey to a total of 93 recipients, while the administrator from South School District reported forwarding the survey to 70 recipients. This data collection

yielded 28 respondents (19 from North and 9 from South) with an overall response rate of 16.6%. Although the Thanksgiving holiday interrupted the data collection period, the electronic nature of the survey made it possible for respondents to complete the survey even if their school was out of session for the holiday.

At the conclusion of this data collection period, I decided to expand the sample into two more school districts in an attempt to increase the power of the study. A change of procedures application was submitted to the Walden University IRB and once approved (IRB approval no. 11-03-17-0523718), data collection following the same procedures began in East and West School districts. The change of procedures was approved on December 19, 2017.

The data collection in East and West school districts began on December 19, 2017 and concluded on January 17, 2018. Using the procedures described in Chapter 3 of this document, the survey was forwarded to substitute teachers in each district by a district administrator. The district administrator for East School District reported forwarding the survey to a total of 105 recipients, while the administrator from West School District reported forwarding the survey to 47 recipients. Three weekly reminder e-mails were sent to each district administrator and forwarded to substitute teachers. This data collection yielded 23 respondents (13 from East and 10 from West) with an overall response rate of 15%. Although the Christmas and New Year holidays interrupted the data collection period, the electronic nature of the survey made it possible for respondents to complete the survey even if their school was out of session for the holiday.

In total, over the two data collections, there were 52 responses submitted. One response, however, only contained responses to 28% (13 items) of the survey and was discounted from the quantitative analysis. In addition, this respondent did not respond to the open-ended responses and was therefore also discounted from analysis of those responses. This represented an overall response rate of 16.2%, as a total of 315 potential respondents received the survey invitation. I discuss the demographic characteristics of the respondents in the following section, as they pertain to the first research question.

Results

Prior to analysis, I examined and screened the data. As mentioned in the previous section, one response was eliminated in its entirety as it only contained a response to 28% of the items. In accordance with the JSS scoring instructions, any missing responses for subcategory scores were filled with the mean response for that category, from that specific respondent. This was required for 58 individual items, a total of 3% of the JSS data.

Before conducting the ANOVA, the data was examined to determine if it aligned with the six assumptions of ANOVA. One-way ANOVA was chosen, as the dependent variable job satisfaction scores was measured at the ratio level and the independent variable included two groups for comparison. The groups in comparison are mutually exclusive as a respondent either holds a teaching certificate or they do not. Therefore, each respondent only belonged to the noncertified or the certified group. In addition, the data was examined for outliers using SPSS. This analysis identified seven outliers. I then examined the outliers for their distance from the mean in their respective category.

Any outliers that were more than two standard deviations away from the mean were removed. This included four responses for the supervision category that were 0.00. These four respondents did not answer the items related to their supervisor and therefore the mean score for the category was 0.00.

Once the outliers were removed, I used Kolmogorov-Smirnov and Shapiro-Wilk tests for normality to assess the data for normal distribution. Some categories were normally distributed according to the analysis conducted at the $p > .05$ level. The results for the tests are displayed in Table 4.

Table 4

Tests of Normality

		Kolmogorov-Smirnov[a]			Shapiro-Wilk		
Category	Job Role:	Statistic	*df*	*p*	Statistic	*df*	*p*
TSS score	Noncertified	.193	18	.076	.954	18	.494
	Certified	.150	29	.095	.965	29	.435
JSS score	Noncertified	.113	18	.200*	.969	18	.780
	Certified	.120	29	.200*	.957	29	.280
Pay	Noncertified	.157	18	.200*	.944	18	.338
	Certified	.189	29	.010	.857	29	.001
Promotion	Noncertified	.148	18	.200*	.976	18	.897
	Certified	.110	29	.200*	.949	29	.176
Supervision	Noncertified	.179	18	.131	.881	18	.027
	Certified	.219	29	.001	.866	29	.002
Fringe benefits	Noncertified	.165	18	.200*	.927	18	.169
	Certified	.116	29	.200*	.925	29	.040
Contingent rewards	Noncertified	.150	18	.200*	.923	18	.145
	Certified	.181	29	.016	.953	29	.214
Operating conditions	Noncertified	.144	18	.200*	.950	18	.427
	Certified	.169	29	.034	.925	29	.041
Coworkers	Noncertified	.203	18	.048	.847	18	.008
	Certified	.205	29	.003	.899	29	.009
Nature of work	Noncertified	.158	18	.200*	.913	18	.098
	Certified	.125	29	.200*	.940	29	.100
Communication	Noncertified	.130	18	.200*	.943	18	.327
	Certified	.136	29	.183	.958	29	.299

Note. *. This is a lower bound of the true significance.
a. Lilliefors Significance Correction

To satisfy the last assumption of ANOVA, I analyzed the data using SPPS to conduct a test for homogeneity of variances. I used Levene's test, and the results are included in Table 5.

Table 5

Test of Homogeneity of Variances

	Levene statistic	*df1*	*df2*	*p*
TSS	.136	1	49	.714
JSS	3.650	1	49	.062
Pay	.979	1	49	.327
Promotion	.082	1	49	.775
Supervision	.062	1	45	.805
Fringe benefits	.005	1	49	.942
Contingent rewards	1.222	1	49	.274
Operating conditions	11.826	1	49	.001
Coworkers	.209	1	49	.650
Nature of work	.028	1	49	.867
Communication	3.024	1	49	.088

As evident from Table 5, all categories showed equal variances at the $p = .05$ level except for Operating Conditions. In the following sections I discuss the data analysis for each research question.

Research Question 1:

RQ1: What is the overall job satisfaction level of substitute teachers?

To determine the overall job satisfaction of substitute teachers surveyed, I calculated composite scores for the TSS and JSS. Scoring for each instrument was conducted according to the instructions provided by the authors of the surveys. These

scores were then averaged and used to compare different subgroups of respondents. Concerning the overall job satisfaction level of substitute teachers working in rural Pennsylvania districts, descriptive statistics, including mean, median, mode, range, variance, standard deviation, and relative standing, were used to examine results.

TSS results. Table 6 displays the overall job satisfaction results for the TSS.

Table 6

Overall Job Satisfaction Ratings for the TSS All Districts, All Groups

Item	*M*	*SD*	*Mode*
1. In most ways, being a teacher is close to my ideal.	4.02	.76	5
2. My conditions of being a substitute teacher are excellent.	3.54	.94	4
3. I am satisfied with being a substitute teacher.	3.10	1.16	4
4. So far I have gotten the important things I want to be a substitute teacher.	3.10	.83	3
5. If I could choose my career over, I would change almost nothing.	3.19	1.20	4

Note. n = 51, all items were rated on a Likert scale from 1 = strongly disagree to 5 = strongly agree

As evident from Table 6, the most positive responses (M = 4.02, SD = .76) were to the item "In most ways, being a teacher is close to my ideal." The maximum score for each item was five, and total scores for the TSS ranged from 8 to 25. A higher total score on the TSS indicated a higher level of job satisfaction. The mean total TSS score for the 51 respondents was 17.27 (SD = 3.45).

To calculate a mean total score for each demographic group, each data point was separated by demographic characteristics. In the case of experience, respondents gave responses in years of experience. For the purposes of statistical analysis, these responses had to be grouped into cohorts. As the responses ranged from 1-42 years of experience in education, I conducted calculations to establish a minimum, maximum, median, Q1 and

Q3 values to divide the responses into quarters and establish four cohort groups. The groups were categorized as: 1-3 years, 4-7 years, 8-15years, and 16+ years of experience. Each group represents 25% of respondents. Collectively, the respondents had a mean of 11.68 years of experience. Table 7 displays the results.

Table 7

TSS Mean Scores by Demographic Groups

Demographic	Category	*N*	*M*	*SD*	*Range*
Gender	Male	9	15.78	3.00	10.0
	Female	42	17.60	3.49	17.0
Experience	1-3	14	18.00	4.35	17.0
	4-7	13	16.85	2.30	8.0
	8-15	13	15.85	2.88	9.0
	16+	11	18.55	3.62	10.0
Education	Associate	1	-------	-------	------
	Bachelor	31	17.84	3.31	13.0
	Master	18	16.39	3.76	14.0
	Doctoral	1	-------	-------	------
District	North	19	17.05	3.41	10.0
	South	9	16.11	2.57	8.0
	East	13	18.77	3.42	12.0
	West	10	16.80	4.05	13.0

Examining the descriptive statistics in the category of gender reveals that females reported a higher average score (M = 17.60 , SD = 3.49) on the TSS than their male counterparts (M = 15.78 , SD = 3.00). In addition, the most satisfied groups according to their average TSS scores in terms of education are those at the beginning of their career (1-3 years of experience; M = 18.00, SD = 4.35) and in later stages of their career (16+ years of experience; M = 18.55 , SD = 3.62). Statistical analysis utilizing a one-way

ANOVA with experience cohort as the independent variable and TSS total score as the dependent variable indicated that this difference was not statistically significant.

In terms of education, a full comparison was not possible as only one respondent indicated an associate's degree, and only one indicated a doctoral degree. Average TSS scores only differed by 1.45 between those who hold a bachelor or a master's degree as their highest level of education. Mean scores for the TSS were slightly higher in the North and East school districts, 17.05 and 16.80 respectively. The South school district responses appeared to be the most consistent as they carried the lowest range (8.0) and standard deviation (*SD* = 2.57). Comparing the overall average score of 17.27 (*SD* = 3.45) to each subgroup indicated that the following subgroups reported satisfaction at rates above the whole group average: (a) females, (b) 1-3 years of experience, (c) 16+ years of experience, (d) bachelor's degree, and (e) East School District.

Job Satisfaction Survey results. I conducted scoring of the JSS in accordance with the directions provided by the author of the survey (Spector, 1985). Each item ranges from one to six, and total JSS scores can range from 36 to 216. Total scores of the JSS, in this study, ranged from 72.75 to 203 with a mean score of 142.74 (*SD* = 27.19). Before comparing total scores, I calculated descriptive statistics for each item, as displayed in Table 8.

Table 8

Descriptive Statistics for Responses to the JSS.

Item	*M*	*SD*
1. I feel I am being paid a fair amount for the work I do.	2.86	1.71
2. There is really too little chance for promotion on my job.	2.55	1.47
3. My supervisor is quite competent in doing his/her job.	4.91	1.65
4. I am not satisfied with the benefits I receive.	2.83	1.66
5. When I do a good job, I receive the recognition for it that I should receive.	3.63	1.52
6. Many of our rules and procedures make doing a good job difficult.	4.71	1.17
7. I like the people I work with.	5.55	0.62
8. I sometimes feel my job is meaningless.	4.59	1.47
9. Communications seem good within this organization.	4.42	1.33
10. Raises are too few and far between.	1.95	1.17
11. Those who do well on the job stand a fair chance of being promoted.	3.20	1.54
12. My supervisor is unfair to me.	5.06	1.72
13. The benefits we receive are as good as most other organizations offer.	2.85	1.84
14. I do not feel that the work I do is appreciated.	3.82	1.51
15. My efforts to do a good job are seldom blocked by red tape.	4.01	1.44
16. I find I have to work harder at my job because of the incompetence of people I work with.	5.30	0.89
17. I like doing the things I do at work.	5.41	0.57
18. The goals of this organization are not clear to me.	4.72	1.42
19. I feel unappreciated by the organization when I think about what they pay me.	3.14	1.71
20. People get ahead as fast here as they do in other places.	2.63	1.39
21. My supervisor shows too little interest in the feelings of subordinates.	4.44	1.65
22. The benefit package we have is equitable.	2.46	1.61
23. There are few rewards for those who work here.	3.28	1.63
24. I have too much to do at work.	4.63	1.10
25. I enjoy my coworkers.	5.47	0.81
26. I often feel that I do not know what is going on with the organization.	3.46	1.55
27. I feel a sense of pride in doing my job.	5.53	0.64
28. I feel satisfied with my chances for salary increases.	2.33	1.39
29. There are benefits we do not have which we should have.	2.45	1.44
30. I like my supervisor.	4.92	1.64
31. I have too much paperwork.	5.05	1.04
32. I don't feel my efforts are rewarded the way they should be.	3.17	1.49
33. I am satisfied with my chances for promotion.	2.81	1.65
34. There is too much bickering and fighting at work.	5.24	0.84
35. My job is enjoyable.	5.31	0.62
36. Work assignments are not fully explained.	4.06	1.62

Note. $n = 51$, 6-point Likert scale Disagree very much (1) to Agree very much (6).

To simplify the information, the subscales of the JSS were utilized to make group comparisons. Subscale scores on the JSS can range from 4 to 24. Using the scoring instructions provided by Spector (1985), the subscale scores were calculated by adding

the scores for each applicable item. From these subscale scores, the means for each demographic group could be separated and calculated. Table 9 provides an overview of each subscale and the calculation of sub score means for all responses.

Table 9

Means for Total JSS Score and Sub-Categories by Demographic Group

	Gender		Experience				Education		District			
	Male	Female	1-3	4-7	8-15	16+	Bachelor	Master	North	South	East	West
N	9	42	14	13	13	11	31	18	19	9	13	10
Total JSS	141.3	143.0	154.4	150.6	124.4	140.2	150.6	132.2	137.8	137.0	153.8	143.0
Pay	11.81	9.95	13.25	11.67	6.31	9.55	11.37	8.82	11.43	7.89	13.08	6.60
Promotion	9.89	11.46	12.21	12.08	9.81	10.46	12.00	10.03	10.05	10.00	12.69	12.45
Supervision	18.78	19.45	21.14	19.23	18.02	18.71	20.72	17.04	17.91	20.81	20.81	18.80
Fringe benefits	9.28	10.87	11.75	12.31	7.27	11.00	11.31	10.08	10.13	8.33	13.15	10.15
Contingent rewards	14.31	13.81	15.73	16.42	9.85	13.36	15.17	12.14	13.36	12.33	15.54	14.20
Operating Conditions	16.20	18.25	18.86	18.79	16.96	19.09	19.35	16.93	17.54	19.0	18.92	18.85
Coworkers	21.78	21.51	21.57	21.00	21.80	21.912	21.94	21.02	21.01	22.11	21.92	21.63
Nature of work	20.11	21.00	22.00	21.54	19.39	20.27	21.32	20.22	20.63	20.22	21.38	21.10
Communi-cation	16.22	16.74	17.93	17.54	15.04	15.86	17.44	15.86	15.68	16.33	16.31	19.20

Note. Maximum total JSS score is 216. Maximum subscale score is 24. Associate and doctorate have been omitted as n=1.

In the case of gender, females reported a slightly higher total score for the JSS than did their male counterparts. This trend does not carry over into the subscales with males reporting a higher level of satisfaction in the categories of pay (M = 11.81, SD = 26.03) and contingent rewards (M = 14.31, SD = 6.47). Females reported higher degrees of satisfaction in the subscales of promotion (M = 11.46, SD = 4.37), supervision (M = 19.45, SD = 6.15), fringe benefits (M = 10.87, SD = 5.25) and operating conditions (M = 18.25, SD = 3.09). The categories of coworkers and communication only differed by 0.27 and 0.52 respectively. To analyze these differences further, a one-way ANOVA was conducted with gender as the independent variable and JSS total and subscale scores as

the dependent variable. The results indicated that none of these differences were statistically significant at the .05 level.

The demographic category of experience demonstrated differences in the mean scores for the different cohorts. As previously mentioned, experience was reported in years and the data was divided into quartiles to create four experience cohorts (1-3 years, 4-7 years, 8-15 years, and 16+ years). The cohort with the highest reported satisfaction was those with 1-3 years of experience in education (M = 154.4, SD = 31.85). Additionally, the cohort with the lowest reported satisfaction were those with 8-15 years of experience in education. This subgroup reported the lowest satisfaction in every category except Coworkers (M = 21.80, SD = 2.06). The overall satisfaction of the 8-15 years of experience cohort is 18.8 points away from its closest cohort and a full 30 points lower than the top group of 1-3 years of experience. The most experienced cohort (16+ years) had lower mean scores than the less experienced cohorts (1-3, 4-7), in every category except operating conditions (M = 19.09, SD = 1.81) and coworkers (M = 21.91, SD = 1.64).

The category of coworkers received similar scores from every demographic, ranging only from 21 to 22 points. Concerning highest level of education, only one respondent indicated an Associate's degree and one a Doctoral degree. This left the comparison only valid between the mean scores of those with Bachelor's degrees and those with Master's degree. Those with Bachelor's degrees reported higher satisfaction scores than those with Master's degrees in every category of the JSS. To further analyze such differences, several one-way ANOVAs were utilized with degree as independent

variable. Results indicated that statistically significant differences existed in the categories of: JSS total score ($F(1,48) = 5.84$, $p = .02$, *partial* $\eta^2 = .11$); contingent rewards ($F(1,48) = 4.23$, $p = .045$, *partial* $\eta^2 = .08$); and operating conditions ($F(1,48) = 7.13$, $p = .01$, *partial* $\eta^2 = .13$). This means that 11%, 8% and 13% of the differences in the respective categories can be attributed to group membership.

The data from each school district was also analyzed to determine mean scores for the purpose of comparison. Respondents from East School District reported the highest overall satisfaction ($M = 153.8$, $SD = 35.89$). Additionally, East School District respondents reported the highest satisfaction in six of the nine categories. To further explore these differences, a one-way ANOVA was conducted with school district as the independent variable and JSS total and subscale scores as the dependent variable. The only statistically significant difference was present in the category of pay ($F(3,50) = 4.63$, $p = .006$, *partial* $\eta^2 = .23$). Post hoc testing revealed the statistically significant difference was between East School District and West School District. As evident from the effect size, 23% of this difference could be attributed to district differences.

When compared to the mean score for all respondents ($M = 142.74$, $SD = 27.19$), the following groups reported total job satisfaction above this level: females ($M = 143.0$, $SD = 26.03$); 1-3 years of experience ($M = 154.4$, $SD = 31.85$); 4-7 years of experience ($M = 150.6$, $SD = 21.18$); bachelor degree ($M = 150.6$, $SD = 25.06$); East School District ($M = 153.8$, $SD = 35.89$). The significance of the comparisons will be further discussed in chapter 5. In addition, a Pearson correlation (2-tailed) was utilized and found a positive, linear correlation of medium strength, $r(51) = .54$, $p = .01$ between the TSS and JSS. As

both instruments claim to measure job satisfaction, such a correlation indicates their quality as measures of job satisfaction.

Research Question 2

RQ2: Difference in job satisfaction between certified substitute teachers and noncertified substitute teachers.

To test the second research question, concerning any difference in job satisfaction between certified substitute teachers and noncertified substitute teachers. The data were first analyzed to determine the descriptive statistics. Results of this analysis are presented in Table 10.

Table 10

Noncertified and Certified Substitute Teachers' Overall Job Satisfaction Descriptive Statistics

		TSS		JSS	
		M	*SD*	*M*	*SD*
Job role	*n*				
Noncertified substitute teacher	21	18.00	3.41	144.98	34.37
Certified substitute teacher	30	16.77	3.44	141.18	21.31

As evident from Table 10, Noncertified substitute teachers reported higher levels of job satisfaction on both the TSS and JSS. To test the statistical significance of such results, several one-way ANOVAs were conducted using group membership as the independent variable and instrument score as the dependent variable. Results of the ANOVAs are displayed in Table 11. As the results displayed in Table 11 confirm, there

were no statistically significant difference in TSS and JSS total score at the .05 level between noncertified and certified substitute teachers.

Table 11

ANOVA: Comparing Noncertified to Certified Substitute Teachers' Job Satisfaction

		Sum of Squares	*df*	Mean Square	*F*	*p*
TSS	Between groups	18.790	1	18.790	1.600	.212
	Total	594.157	50			
JSS	Between groups	178.488	1	178.488	.238	.628
	Total	36970.620	50			
Pay	Between groups	7.847	1	7.847	4.923	.031*
	Total	85.958	50			
Promotion	Between groups	.679	1	.679	.479	.492
	Total	70.155	50			
Supervision	Between groups	.179	1	.179	.347	.559
	Total	23.335	46			
Fringe Benefits	Between groups	.109	1	.109	.055	.815
	Total	96.866	50			
Contingent Rewards	Between groups	3.942	1	3.942	2.404	.127
	Total	84.298	50			
Operating Conditions	Between groups	.485	1	.485	.751	.390
	Total	32.148	50			
Coworkers	Between groups	.039	1	.039	.129	.721
	Total	14.731	50			
Nature of Work	Between groups	.142	1	.142	.378	.542
	Total	18.547	50			
Communication	Between groups	.739	1	.739	.564	.456
	Total	65.009	50			

Note: *Statistically significant at $p < .05$.

In the eight out of the nine JSS subcategories, there was no statistically significant difference at the .05 level between noncertified and certified substitute teachers. In the category of pay, there is a statistically significant difference in the responses of

noncertified ($M = 3.24$, $SD = 1.33$) and certified ($M = 2.26$, $SD = 1.18$) substitute teachers ($F(1,49) = 4.923$, $p = .031$, $\eta^2 = 0.09$), as certified substitute teachers reported lower levels of satisfaction with their pay.

Research Question 3

RQ3: What are the motivation and hygiene factors substitute teachers indicate as influencing their job satisfaction?

Respondents were asked to submit responses to two open-ended questions. The first asked respondents, to list the most satisfying factors of substitute teaching, while the second asked them to list the most dissatisfying factors. Responses were collected and analyzed by hand to identify recurring factors identified as satisfying and dissatisfying. The analysis process, as recommended by Creswell (2009) involved first reading through all responses to identify common themes. Subsequent readings were conducted to identify and label each factor. A color-coded system was utilized to track each factor as it occurred in multiple responses. Once a list of factors was identified and labeled, occurrences were tallied.

The most commonly mentioned satisfying factor was students. Respondents mentioned students 40 times as a satisfying factor. They often commented on helping students and forming positive relationships with the students they encountered while substitute teaching. Other recurring responses concerning students included acting as a role model, motivating students, and making a difference for students. One respondent wrote, "That I could help a child understand something they were not sure of. I also know that I could help kids having a bad day and give them a positive way to see

school." Another wrote, "My long-term placements have allowed me to create rewarding relationships with students and families." In addition, one respondent acknowledged their role in the community, "I love working with the children of my community I enjoy the school and learning the best ways to impart the knowledge they need to learn." Each of these responses highlights students as a satisfying factor for substitute teachers.

While students represented the most common satisfying factor, they also ranked high on the dissatisfying factor. Mentioned 15 times, poor student behavior, was described as disrespectful, disruptive, unruly, and difficult; poor student behavior was the second most mentioned dissatisfying factor. One respondent wrote that the most dissatisfying part of the job was, "Disruptive students who lessen the chances of interested students." Another respondent stated, "Can't fix kids with deep problems and they go out of their way to be disruptive." While another responded, "Students that just don't give a damn."

Coworkers were also mentioned in both sets of responses. Coworkers were identified as a satisfying factor when they provided assistance, acted welcoming, and were kind. Multiple respondents also indicated that they appreciated being able to help their coworkers. One respondent indicated a satisfying factor was, "working alongside amazing teachers." While another responded, "being able to come to work every day and work with a very welcoming staff." Additionally, substitute teachers expressed satisfaction about being able to help their coworkers. Two respondents acknowledged their role in helping the teachers as satisfying. On the dissatisfaction item, respondents identified unwelcoming coworkers and those who did not leave clear lesson plans as

contributing to dissatisfaction. In addition, respondents indicated that coworkers' perceptions of substitute teachers as "the sub" or as having a lower status as contributing to dissatisfaction. One respondent wrote, "Lots of the HS teachers smile and say hello in the hallway, but they don't talk to you in the teacher lounge, at lunch, or even ask your name. It's a lonely place when you are a substitute teacher." Another wrote, "being referred to continually by the same teachers as 'the sub' even though I've been working with them for five years and they know my name." Similarly, another respondent stated dissatisfaction in, "having some teachers look down on you, even though I probably have more schooling than they do." Multiple respondents noted dissatisfaction when the classroom teacher did not leave adequate lesson plans for the substitute teacher. One respondent noted dissatisfaction when, "the teacher does not make clear to the students what is expected of them and the consequences of their actions in the class." Another stated that lack of work left for students was dissatisfying.

As suggested by the quantitative data, pay was a popular response to the open-ended questions. Only one respondent, a noncertified substitute teacher, indicated pay as a satisfying factor, they stated, "the pay is better than my last job, 20-dollar incentive after 7 days a month." In the dissatisfying factors respondents mentioned pay 18 times by 12 certified substitute teachers and 6 noncertified substitute teachers. One, a noncertified substitute teacher, responded, "I have worked in my present school for 11 yrs [sic] and have never received any raise in pay." Another respondent, a certified substitute teacher, noted, "The pay and benefits for substitute teachers is beyond terrible.

Working at a grocery store pays nearly the same." One respondent, a noncertified substitute teacher, stated that the pay makes them, "feel undervalued as a professional."

The work schedule was mentioned often by respondents. Mentioned a total of 15 times, 6 mentions as a satisfying factor and 9 times as a dissatisfying factor. Some touted the flexible schedule of substitute teachers as a satisfying element, but others denounced the unpredictability and uncertainty as dissatisfying. One respondent indicated dissatisfaction at, "going into a building expecting to cover one teacher and made to be three different teachers do [sic] to sub shortage." Many respondents indicated dissatisfaction in covering classes during their preparation period. One indicated, "this has happened to me at least 15x [times] during the current school year. There are teachers I sub for and they want me to grade paper[s], then I have no time to complete the task."

Training was noted as a dissatisfying element in 5 different responses. One respondent noted not being trained on, "safety protocols for emergency situations." Multiple respondents indicated that they were not shown how to operate technology within the classrooms. Many of these responses indicated that respondents were not informed where things were located. One respondent noted, "You don't even know where a bathroom is near your classroom (even if you have time to get there)." One respondent did refer to training as a satisfying element of the job. They wrote, "Being in the school setting; having the opportunity to practice teaching techniques and broaden skills/ideas. Learning child development through hands on experience."

Supervision was also noted in both the satisfaction and dissatisfaction responses. Twice supervision was mentioned as a satisfying factor while it was mentioned six times as a dissatisfying factor. One respondent noted, "The substitute coordinator does an excellent job finding jobs and assigning duties that are closest to my home!" In the dissatisfaction responses, respondents noted difficulty reaching supervisors, lack of recognition or feedback from supervisors, lack of guidance from supervisors, and a lack of face-time with supervisors.

Another frequently mentioned factor was promotion. Many respondents touted long-term placements as a satisfying element of employment as a substitute teacher. However, others lamented lack of opportunities for promotion as a dissatisfying element to the position. One described the lack of opportunities as, "disheartening," a sentiment echoed in another response that stated, "My district rarely hires from the substitute pool."

Only mentioned in the satisfaction responses, nature of work was a popular response. In 11 different respondents mentioned the nature of the work as a factor contributing to their satisfaction. Respondents indicated that getting to teach and helping students learn were some of the most satisfying elements of the job. One respondent indicated, "Even though I am a retired teacher, I have the opportunity to continue working with students in my certified area." While mentions of the nature of the work only occurred in the satisfaction responses, responses concerning communication only occurred in the dissatisfaction responses.

Communication was mentioned 10 times as a dissatisfying factor. Much of these responses focused on communication a lack of communication from coworkers and

supervisors. While some suggested substitute teachers carried the status of an "outsider" or did not receive respect as a professional. One respondent suggested, "Because I am a substitute, I am not privy to "inside" information about the school or students. I stay an outsider." Others focused on the perceptions of others. One respondent indicated dissatisfaction from, "Being thought of as a babysitter, not a professional." Another noted, "not always being thought of as 'part of the team.''

Overall, the most common sources of satisfaction amongst respondents were: students, coworkers, and the nature of work. The most common sources of dissatisfaction amongst respondents were: pay, student behavior, and communication.

Summary

As the sections above detailed, this study found answers to each of the research questions asked. Concerning the overall job satisfaction of substitute teachers (RQ 1), the mean score on the TSS was 17.27 (SD = 3.45, n = 51) while the mean score on the JSS was 142.74, (SD = 27.19, n = 51). As these are only relative to their maximum possible scores, 25 and 216 respectively, they were used to make comparisons. The following subgroups reported overall job satisfaction above the average score reported on both measures of job satisfaction: females, those with 1-3 years of experience, those with a Bachelor's degree as their highest level of education, and those from East School District. Those with 16+ years of experience reported a higher than the average score on the TSS, while those with 4-7 years of experience reported a higher than average score on the JSS.

Concerning the potential difference in job satisfaction between noncertified and certified substitute teachers (RQ2), the study data analysis was conclusive. The only statistically significant difference between noncertified and certified substitute teachers occurred in the subcategory of pay with certified substitute teachers expressing a higher degree of dissatisfaction. In this category, the null hypothesis was rejected. In all other categories, including overall job satisfaction (both TSS and JSS total scores), promotion, supervision, fringe benefits, contingent reward, operating conditions, coworkers, nature of work, communication there was no statistically significant difference between the groups and I failed to reject the null hypothesis.

In addressing RQ3, the open-ended response items allowed for further insight to the factors that influence satisfaction and dissatisfaction amongst substitute teachers. The most common sources of satisfaction amongst respondents were: students, coworkers, and the nature of work. The most common sources of dissatisfaction amongst respondents were: pay, student behavior, and communication. The following chapter will discuss the significance of such findings, their implications, limitations of the current study, and suggest directions for future research concerning the job satisfaction of substitute teachers.

Chapter 5: Discussion, Conclusions, and Recommendations

The purpose of this quantitative study was to assess the job satisfaction of substitute teachers with regard to differences between the two subgroups of certified substitute teachers and noncertified substitute teachers. This study was based on two-factor theory. The research questions addressed the overall job satisfaction of substitute teachers, whether teacher job satisfaction (DV) differed by subgroup membership (IV), and the motivation and hygiene factors of substitute teaching. Data collection involved a cluster sampling of substitute teachers working in four rural school districts that experienced shortages of substitute teachers. Data were analyzed using ANOVA and thematic analysis. To answer the first research question, data analysis was used to identify demographic subgroups that reported above average job satisfaction, which were females, those with 1-3 years of experience, and those with the highest level of education being a bachelor's degree. To answer the second research question, analysis uncovered one statistically significant difference between noncertified and certified substitute teachers in the subcategory of pay. To answer the third research question, the analysis identified the most commonly reported motivation factors as the students, coworkers, and the nature of the work. The most commonly reported hygiene factors amongst respondents were pay, student behavior, and communication.

Interpretation of the Findings

As noted in the previous chapters, substitute teachers are not well represented in educational literature. As such, it was difficult to frame the findings of this study within previous research. In the following section I discuss the findings in light of existing

literature in the key areas of pay, experience, students, school-level factors, and two-factor theory.

Pay

The findings do align with many of the previous studies acknowledging the difficult and stressful nature of the job of substitute teaching (Bletzer, 2010; Driedger-Enns, 2014; Gershenson, 2012; Chia-Lin & Wei-Wen, 2017; Vorell, 2012). Those found to have the highest job satisfaction were at the relative beginning of a career (1-3 years of experience) indicating that the stressful nature of the job may take a toll over time. As addressed by the research of Cardon (2002), the controversial issue of pay amongst substitute teachers also appeared in the findings of this study as a significant factor. This study found that certified substitute teachers were significantly less satisfied than noncertified substitute teachers in the category of pay. Pay received some of the lowest subcategory scores on the JSS and was the most commonly identified negative hygiene factor. In addressing recruitment and retention issues, school districts may need to address the potential impact that pay has on an individual's job satisfaction. As indicated as lacking in many of the open ended responses incentive programs including provisions for higher levels of education, consistent attendance, and longevity may help to boost job satisfaction amongst substitute teachers.

Experience

As discussed in Chapter 2, the literature on teacher job satisfaction was used to draw parallels to the job of substitute teaching. In this study, the demographic groupings that reported the lowest levels of satisfaction included those with 8-15 years of

experience and those possessing a master's degree as their highest level of education. This is in line with findings by Arnup and Bowles (2016) who found the highest intention to leave amongst Australian teachers occurred in those with 5-10 years' experience and lower levels of job satisfaction and resiliency. Both studies seem to indicate that those in the middle of their career may be most likely to display lower levels of job satisfaction. Analysis of the open-ended responses indicates that respondents with 4 or more years of experience frequently noted dissatisfaction with opportunities for promotion, feedback, recognition, and not being respected as a professional in the field. This may suggest that those in the middle to later stages of their careers value professional respect more than their younger counterparts. School districts struggling to recruit and retain substitute teachers may want to create recognition programs for substitute teachers and take steps to improve the professional standing of substitute teachers in their district.

Students

In another acknowledgement of previous findings from the literature, this study found that students were frequently named as both a motivation and hygiene factor. Students were the most commonly referenced motivational factor when respondents were asked to name the satisfying elements of their jobs as substitute teachers. Their behavior was one of the most commonly referenced hygiene factors when respondents were asked to name the dissatisfying elements of their jobs as substitute teachers. Although students were not directly addressed in the TSS or JSS, the open-ended questions provided a window with which to see the impact students may have on the job satisfaction of substitute teachers. In agreement with previous research (Landers et al., 2008; Hughes,

2012; Xia et al., 2015), this study found that students do play a role in determining job satisfaction.

School Level Factors

The findings in this study acknowledge the influence of school-level factors on job satisfaction (Dinham & Scott, 1998, 2000; Holzberger et al., 2014; Xia et al., 2015; You et al., 2017). In this study, differences by school district were apparent in multiple subcategories of the JSS. Respondents from East School District reported the highest overall satisfaction (M = 153.8, SD = 35.89). However, this mean is accompanied by the largest standard deviation of the comparison indicating that respondents from East School District presented the most variation in their responses to the survey. While some did confirm larger patterns and trends in terms of pay and experience, statistical analysis indicated that school level differences were present. Evidence of these school level factors may suggest the potential for positive change, as many studies have found improvements in areas including administrative support, working conditions, coworker relations, and student behavior (Grissom et al., 2016; Tiplic et al., 2015; Xia et al., 2015).

Two Factor Theory

In alignment with the two-factor theory, I intended this study to delineate the motivation and hygiene factors of the job of substitute teaching and how these may differ across demographic groups. Utilizing multiple methods of data collection and analysis, the findings suggested the most common sources of satisfaction, or motivational factors, amongst respondents were students, coworkers, and the nature of work. The most common sources of dissatisfaction, or hygiene factors, amongst respondents were pay,

student behavior, and communication. In confirmation of the two-factor theory, all motivational factors are independent of the hygiene factors. In agreement with the two-factor theory, the intrinsic factor nature of the work was noted as motivating. Perhaps indicative of the rewarding nature of the work, as discussed by Bletzer (2010), the nature of work subscale from the JSS received some of the highest subcategory scores across all demographic subgroups. Extrinsic factors (pay, student behavior, and communication) were noted as hygiene or dissatisfying factors. Much of the data concerning communication, especially in the open-ended responses, emphasized negative perceptions and lack of professional respect for substitute teachers. As discussed in the literature by Duggleby and Badali (2007), Cardon (2002), Lassman (2001), negative perceptions were frequently identified as a hygiene factor in the open-ended responses.

At first glance, it appears that two of the most common motivating factors identified by respondents, the students and coworkers, were contradictory to the two-factor theory in that they appeared to be extrinsic. However, when examined further, many of the responses emphasized the relationships themselves, and thus would be considered intrinsic. Respondents most often noted the meaning and value of such relationships with students and coworkers. They indicated value in the process of the formation of such relationships. Use of action verbs ("helping, making, working, developing, building") in their responses indicated that they viewed themselves as active participants in forming those relationships suggesting that their view of these relationships was intrinsic. These relationships were something within their power to build, maintain, and improve. In the subscale analysis of the JSS data, the only

subcategories to receive mean scores over 20 (out of 24) were supervision, nature of work, and coworkers. This may indicate that respondents in every district may glean the most satisfaction from the people they work with and the job that they do.

Limitations of the Study

Although care was taken to design a study that would yield reliable and valid generalizable results, this study did have some limitations. As previously noted, the lack of literature concerning substitute teachers provided this study with limited guidance. To compensate, the literature search, as discussed in Chapter 2, drew from the literature concerning teacher job satisfaction once the literature on substitute teaching was exhausted. Additionally, the theory provided historical reference and guidance for the design of the study. In addition to providing limited guidance, the literature failed to provide details on other geographical areas experiencing a similar shortage of substitute teachers.

This study was limited by geographical location as it only involved rural school districts in Pennsylvania experiencing a shortage of substitute teachers. As such, it was also limited by a small sample size. Although the sample was expanded once, expanding the sample further would have delayed results and introduced the potential for many complicated variables to interfere with any conclusive findings. Maintaining a smaller sample size from similar communities allowed any interfering variables to be kept to a minimum. Although these decisions impacted the generalizability of the study, with little to build from in the existing literature, this study was intended to be a starting point to help address a local problem.

Recommendations

In light of the limitations discussed above, I recommend that similar studies be conducted with larger and more diverse samples. As this study focused on districts and a geographical region experiencing a shortage of substitute teachers, it should be expanded into geographical regions not experiencing a shortage. This would allow for valuable comparisons between regions of shortage and regions of surplus. Similarly, no research exists on the prevalence of substitute teacher shortages. Educational research should focus on surveying and identifying the extent of substitute teacher shortages.

In addition, it is imperative that educational research acknowledge the role substitute teachers play in the educational process. As such, future research cannot ignore substitute teachers as a viable pool of study participants and a valuable source of information. Continued ignorance of such contribution will continue to be detrimental to the improvement of educational processes and educational outcomes.

Although beyond the scope of this study, future research is needed in the areas of teacher shortages and teacher absences. As they play an integral role in determining the need for substitute teachers, teacher shortages and teacher absences are also an important element in future research as they are inherently related to the subject matter of this study. Ultimately, the continuation of research concerning substitute teachers and job satisfaction in the field of education are vital to the continued process of improving educational outcomes for students.

Implications

This study was designed to gain more information concerning a local shortage of substitute teachers. On a larger scale it provided a methodological roadmap for future studies concerning the job satisfaction of substitute teachers. As a contribution to the literature at large, it provided another data point on a relatively unstudied population, although its greatest implications may still remain at a local level.

The district administrators in the participating districts were all faced with a shortage and agreed to participate in hopes of gaining more information on the job of substitute teaching and the job satisfaction of substitute teachers. As substitute teachers were mostly absent from the literature, this study was designed to provide actionable data for districts facing such problems. The study identified the demographic groups that reported the highest and lowest satisfaction ratings. Districts may want to create targeted recruitment efforts to reach the demographic groups with the highest potential for job satisfaction and likelihood to remain once employed. As indicated by this study, those groups are females, those with 1-3 years of experience, and those with a bachelor's degree (Liu, 2012; McInerney et al., 2015; Rhodes et al., 2004; Wang et al., 2015).

In addition, this study found the only statistically significant difference between noncertified and certified substitute teachers was in the category of pay. A category which often differentiates between the groups with certified substitute teachers receiving a higher pay rate. The implications of pay are difficult to address overall, as they are subject to many local and regional differences such as cost of living. As such it is difficult to make a comprehensive suggestion. However, as pay was demonstrated, in

this study, to differentiate certified and noncertified substitute teachers it is important that districts attend to pay as important, but not the only contributor to job satisfaction. As certified and noncertified substitute teachers did not differ significantly in all other categories, districts may want to design targeted recruitment to attract noncertified substitute teachers just as they would to attract certified substitute teachers, as noncertified substitute teachers demonstrated similar levels of job satisfaction.

Finally, this study helped identify the motivation and hygiene factors within this population of substitute teachers. The factors identified were not limited to pay. As education funding continues to vary by state, district, and the federal government, it is on each school district to find a way to do more with less. Substitute teacher shortages are complex issues, and as this study demonstrates are not just about pay. While higher pay would certainly address an identified hygiene factor, it was not the only factor that could improve the job satisfaction of substitute teachers. Other hygiene factors identified can be addressed by school districts. As evident from the data, the job satisfaction of substitute teachers is also impacted by student behavior and communication. Improvements in these areas could have a direct and positive effect on the job satisfaction of substitute teachers and potentially increase their retention. Doing so may have the potential to improve the quality of the educational process and hopefully improve educational outcomes for students in a ripple effect of positive social change.

Additionally, it is important that districts understand why substitute teachers are motivated to work in their position. This study found that they are most motivated by students, coworkers, and the nature of work. Districts could promote these as benefits to

the position and any improvements in these areas such as improved communication and recognition would most certainly positively impact the job satisfaction of substitute teachers currently employed.

Conclusion

The goal of this study, in terms of positive social change, was to identify satisfying aspects of substitute teaching that could be further improved which could increase retention, alleviate the shortage, and provide students with more consistent substitutes. Furthermore, the findings helped to identify dissatisfying aspects of substitute teaching which must be improved. Data analysis identified demographic subgroups that reported above average job satisfaction were females, those with 1-3 years of experience, and those with the highest level of education being a Bachelor's degree. Such findings pave the way for targeted recruitment efforts. Such efforts need to highlight the satisfying aspects of the job and focus on recruiting those groups most likely to be satisfied by the work. Those groups include females, individuals with 1-3 years of experience, and individuals with 16+ years of experience. As the research demonstrates (Aydogdu & Asikgil, 2011; Huang & Su, 2016; Liu, 2012; McInerney et al., 2015; Naderi Anari, 2012; Rhodes et al., 2004; Wang et al., 2015) satisfied employees are most likely to remain employed.

The analysis uncovered a statistically significant difference between noncertified and certified substitute teachers only in the subcategory of pay. This suggests that noncertified and certified substitute teachers differ very little in other aspects that impact job satisfaction in their work as substitute teachers. As teacher shortages loom and

districts look for creative solutions, this study illustrates, at least in terms of substitute teachers, those with or without a teaching certification are just as likely to be satisfied with the work.

Lastly, the analysis identified the most commonly reported motivation factors were the students, coworkers, and the nature of work. The most commonly reported hygiene factors amongst respondents were: pay, student behavior, and communication. These findings direct school districts to areas in which improvement may be needed and may result into tangible differences in job satisfaction of substitute teachers. Ultimately, as Ingersoll (2006) reminds, "The data suggest a clear but difficult lesson: If we want to improve the quality of our teachers and schools, we need to improve the quality of the teaching job" (p. 249). Following Ingersoll's logic, if we want to improve the quality and quantity of our substitute teachers then we must first address the quality of the work of substitute teaching.

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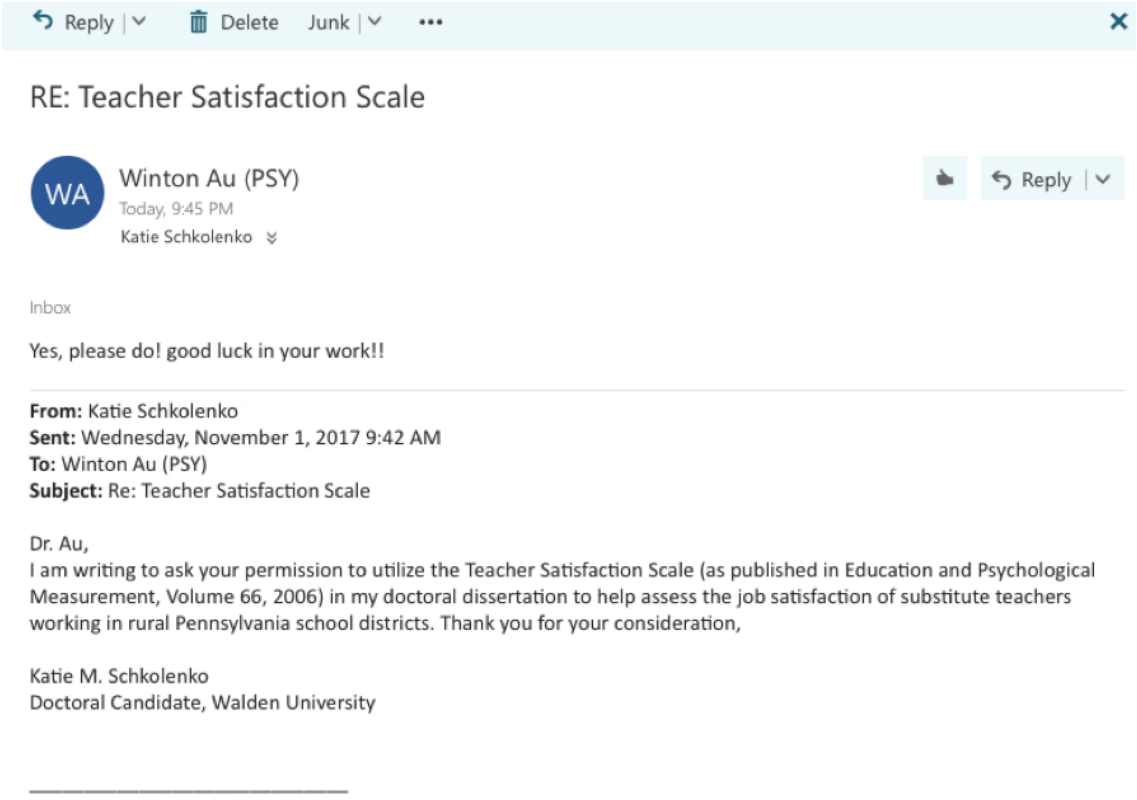
Appendix A: Design Alignment Tool

Study Problem and Purpose Provide one sentence for each. They must align with all RQ rows.	**Research Questions** List each research question (RQ) in a separate row below. Add or delete rows, as needed.	**Data Collection Tools** List which instrument(s) are used to collect the data that will address each RQ.	**Data points Yielded** List which specific questions/variables /scales of the instrument will address each RQ.	**Data Source** List which persons/artifacts/records will provide the data.	**Data Analysis** Briefly describe the specific statistical or qualitative analyses that will address each RQ.
A mid-sized rural Pennsylvania school district is having difficulty recruiting and retaining substitute teachers. The purpose of this study is to compare the job satisfaction of certified substitute teachers with noncertified substitute teachers.	**RQ 1:** What is the overall job satisfaction level of substitute teachers in rural Pennsylvania districts?	Membership in demographic categories (gender, age, experience, education) descriptive Numeric scores from TSS (Ho & Au, 2006), JSS (Spector, 1985).	Total scores (items 1-5) from the TSS. Total and subscale scores from JSS (items 1-36) Total scores from all instruments.	Completed surveys from a sample of volunteers of the substitute teachers.	Descriptive statistics including (mean, median, standard deviation, variance, gender, experience cohort, education cohort, and total scores.
	RQ 2: Is there a difference in job satisfaction between certified substitute teachers and noncertified substitute teachers in rural Pennsylvania districts?	Dichotomous data (certified substitute teacher / noncertified substitute teacher) (IV). Numeric scores (DV) from TSS (Ho & Au, 2006), JSS (Spector, 1985).	Total scores (items 1-5) from the TSS. Total and subscale scores from JSS (items 1-36) Total scores from all instruments. (DV)	Completed surveys from a sample of volunteers of certified substitute teachers. Completed surveys from a sample of volunteers of noncertified substitute teachers.	Descriptive statistics including (mean, median, standard deviation, variance). ANOVA Group (Certified/Guest) (IV) and mean total score (DV) on the complete instrument.
	RQ 3: What are the motivation and hygiene factors that influence job satisfaction?	Open ended survey items.	Qualitative responses.	Completed surveys from a sample of volunteers of substitute teachers.	Coding and thematic analysis of open ended responses.

Appendix B: The Teacher Satisfaction Scale Permission



Reply | Delete Junk | ...

RE: Teacher Satisfaction Scale

WA

Winton Au (PSY)
Today, 9:45 PM
Katie Schkolenko

Reply

Inbox

Yes, please do! good luck in your work!!

From: Katie Schkolenko
Sent: Wednesday, November 1, 2017 9:42 AM
To: Winton Au (PSY)
Subject: Re: Teacher Satisfaction Scale

Dr. Au,
I am writing to ask your permission to utilize the Teacher Satisfaction Scale (as published in Education and Psychological Measurement, Volume 66, 2006) in my doctoral dissertation to help assess the job satisfaction of substitute teachers working in rural Pennsylvania school districts. Thank you for your consideration,

Katie M. Schkolenko
Doctoral Candidate, Walden University

4/17/18

Dear Dr. Au,

I am completing my doctoral dissertation at Walden University entitled "Comparing the Job Satisfaction Between Certified and Noncertified Substitute Teachers." I would like your permission to reprint in my dissertation excerpts from the following:

Teacher Satisfaction Scale, as printed in:
Ho, C. L., & Au, W. T. (2006). Teaching satisfaction scale measuring job satisfaction of teachers. *Educational and Psychological Measurement*, *66*(1), 172-185. doi:10.1177/0013164405278573

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If these arrangements meet with your approval, please sign this letter where indicated below and return it to me via email [redacted]. Thank you very much,

Sincerely,

Katie M. Schkolenko

PERMISSION GRANTED FOR THE USE REQUESTED ABOVE:

Date ___April 18, 2018___

Winton Au
Director, Industrial-Organizational Psychology Program
Associate Professor, Department of Psychology
Dean of General Education, Shaw College
The Chinese University of Hong Kong

[redacted]

Appendix C: The Teacher Satisfaction Scale

The scale (Ho & Au, 2006) asks participants to agree/disagree with the following items on a 5-point Likert scale (1 = strongly disagree, 5 = strongly agree).

1. In most ways, being a teacher is close to my ideal.
2. My conditions of being a teacher are excellent.
3. I am satisfied with being a teacher.
4. So far I have gotten the important things I want to be a teacher.
5. If I could choose my career over, I would change almost nothing.

Appendix D: Job Satisfaction Survey Permission

Gmail by Google

Katie Schkolenko

Job Satisfaction Survey

Spector, Paul Mon, Jul 18, 2016 at 6:46 PM
To: Katie Schkolenko

Dear Katie:

You have my permission for noncommercial research/teaching use of the JSS. You can find copies of the scale in the original English and several other languages, as well as details about the scale's development and norms in the Scales section of my website (link below). I allow free use for noncommercial research and teaching purposes in return for sharing of results. This includes student theses and dissertations, as well as other student research projects. Copies of the scale can be reproduced in a thesis or dissertation as long as the copyright notice is included, "Copyright Paul E. Spector 1994, All rights reserved." Results can be shared by providing an e-copy of a published or unpublished research report (e.g., a dissertation). You also have permission to translate the JSS into another language under the same conditions in addition to sharing a copy of the translation with me. Be sure to include the copyright statement, as well as credit the person who did the translation with the year.

Thank you for your interest in the JSS, and good luck with your research.

Best,

Paul Spector, Distinguished Professor

4/17/18

Dear Dr. Spector,

I am completing my doctoral dissertation at Walden University entitled "Comparing the Job Satisfaction Between Certified and Noncertified Substitute Teachers." I would like your permission to reprint in my dissertation excerpts from the following:

Job Satisfaction Survey, as provided on your website, with your copyright notice included.

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If these arrangements meet with your approval, please sign this letter where indicated below and return it to me via email. Thank you very much,

Sincerely,

Katie M. Schkolenko

PERMISSION GRANTED FOR THE USE REQUESTED ABOVE:

Signature
Date _4/17/18_____

Appendix E: The Job Satisfaction Survey (JSS)

	JOB SATISFACTION SURVEY Paul E. Spector Department of Psychology University of South Florida 	
	PLEASE CIRCLE THE ONE NUMBER FOR EACH QUESTION THAT COMES CLOSEST TO REFLECTING YOUR OPINION ABOUT IT.	Disagree very much Disagree moderately Disagree slightly Agree slightly Agree moderately Agree very much
1	I feel I am being paid a fair amount for the work I do.	1 2 3 4 5 6
2	There is really too little chance for promotion on my job.	1 2 3 4 5 6
3	My supervisor is quite competent in doing his/her job.	1 2 3 4 5 6
4	I am not satisfied with the benefits I receive.	1 2 3 4 5 6
5	When I do a good job, I receive the recognition for it that I should receive.	1 2 3 4 5 6
6	Many of our rules and procedures make doing a good job difficult.	1 2 3 4 5 6
7	I like the people I work with.	1 2 3 4 5 6
8	I sometimes feel my job is meaningless.	1 2 3 4 5 6
9	Communications seem good within this organization.	1 2 3 4 5 6
10	Raises are too few and far between.	1 2 3 4 5 6
11	Those who do well on the job stand a fair chance of being promoted.	1 2 3 4 5 6
12	My supervisor is unfair to me.	1 2 3 4 5 6
13	The benefits we receive are as good as most other organizations offer.	1 2 3 4 5 6
14	I do not feel that the work I do is appreciated.	1 2 3 4 5 6
15	My efforts to do a good job are seldom blocked by red tape.	1 2 3 4 5 6
16	I find I have to work harder at my job because of the incompetence of people I work with.	1 2 3 4 5 6
17	I like doing the things I do at work.	1 2 3 4 5 6
18	The goals of this organization are not clear to me.	1 2 3 4 5 6

	PLEASE CIRCLE THE ONE NUMBER FOR EACH QUESTION THAT COMES CLOSEST TO REFLECTING YOUR OPINION ABOUT IT. Copyright Paul E. Spector 1994, All rights reserved.	Disagree very much / Disagree moderately / Disagree slightly / Agree slightly / Agree moderately / Agree very much
19	I feel unappreciated by the organization when I think about what they pay me.	1 2 3 4 5 6
20	People get ahead as fast here as they do in other places.	1 2 3 4 5 6
21	My supervisor shows too little interest in the feelings of subordinates.	1 2 3 4 5 6
22	The benefit package we have is equitable.	1 2 3 4 5 6
23	There are few rewards for those who work here.	1 2 3 4 5 6
24	I have too much to do at work.	1 2 3 4 5 6
25	I enjoy my coworkers.	1 2 3 4 5 6
26	I often feel that I do not know what is going on with the organization.	1 2 3 4 5 6
27	I feel a sense of pride in doing my job.	1 2 3 4 5 6
28	I feel satisfied with my chances for salary increases.	1 2 3 4 5 6
29	There are benefits we do not have which we should have.	1 2 3 4 5 6
30	I like my supervisor.	1 2 3 4 5 6
31	I have too much paperwork.	1 2 3 4 5 6
32	I don't feel my efforts are rewarded the way they should be.	1 2 3 4 5 6
33	I am satisfied with my chances for promotion.	1 2 3 4 5 6
34	There is too much bickering and fighting at work.	1 2 3 4 5 6
35	My job is enjoyable.	1 2 3 4 5 6
36	Work assignments are not fully explained.	1 2 3 4 5 6

Appendix F: Demographic Survey Items

Gender:

_____ Male _____ Female

Experience in Education (years): _____

Highest Level of Education:

_____ Associate's Degree

_____ Bachelor's Degree

_____ Master's Degree

_____ Doctoral Degree

Job Role

_____ Guest Teacher (Noncertified substitute teacher)

_____ Certified Substitute Teacher

School District

_____ North School District

_____ South School District

_____ West School District

_____ East School District

Appendix G: Open-Ended Questions

1. List the most satisfying elements of your current job substitute teaching.
2. List the most dissatisfying elements of your current job substitute teaching.