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The Influence of Self-Efficacy on Job Satisfaction in New Jersey Public School Principals

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Kerry L. Postma, has successfully defended and made the required modifications to the text of the doctoral dissertation for the **Ed.D.** during this **Spring Semester 2019**.

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Abstract

This quantitative, descriptive, correlational study sought to describe the nature of the relationship between the self-efficacy of school principals and their job satisfaction. The data were obtained from an online survey sent to all New Jersey public school principals. A total of 822 principals participated in the study. The independent variables included demographic characteristics of respondents and principal self-efficacy as measured by the Principal Self-Efficacy Scale (Tschannen-Moran & Gareis, 2004). The dependent variable was principal job satisfaction, as measured by the Minnesota Satisfaction Questionnaire Short-Form (Weiss, Dawis, England, & Lofquist, 1967). The analyses of the data were completed using simultaneous and hierarchical regression models and mediation analysis. The results indicated that principal self-efficacy is significantly and positively related to principal job satisfaction and partially mediates the relationship between select demographic characteristics of principals and their job satisfaction. The study revealed that a principal's self-efficacy level contributes significantly to his or her job satisfaction, a finding with implications for principal retention.

Keywords: job satisfaction, principal, self-efficacy

Dedication

This work is dedicated to all school principals—past, present and future. “Who knows, perhaps you have come to your royal position for such a time as this” (Esther 4:14b, Holman Christian Standard Version).

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CHAPTER 1: Introduction

Background

In 1939, an Atlanta principal lamented, "I am principal, and all else" (Rousmaniere, 2013, p. 30). The job of the American school principal has always been demanding. Principals in the late nineteenth and early twentieth centuries were teachers first and administrators second. In addition to teaching, many of these principals also coached athletics, advised clubs, directed plays and served in the church and community (Rousmaniere, 2013). The stress associated with the complexity of the role continued through the decades. In a study of high school principals in the Midwest, Poppenhagen, Mingus, and Rogus (1980) called for principal preparation programs to emphasize "skills essential to taking care of one's self and others under high pressure conditions such as those created by staff reduction, decrease in supply and equipment allowances and demands for accountability, and the endurance, physical and psychic, and time management skills essential to coping with an ever expanding role" (p. 87).

Today, the school principal is still managing multiple challenging responsibilities. According to the 2012 MetLife Survey of the American Teacher, 89% of principals and 74% of teachers believe that "a principal should be held accountable for everything that happens to the children in a school" (Harris Interactive, 2013, p. 5). Principals today are expected to serve in many roles, including that of "educational visionaries, instructional and curriculum leaders, assessment experts, disciplinarians, community builders, public relations experts, budget analysts, facility managers, special programs administrators, and expert overseers of legal, contractual, and policy mandates and initiatives" (Davis, Darling-Hammond, LaPointe, and Meyerson, 2005, p. 3). The multi-faceted nature of the principal's role, along with the weight of responsibility that comes with having charge of youngsters makes the job a challenging one.

As a result, principals face tremendous pressure. Nearly half of principals surveyed by the 2012 MetLife Survey reported being under "great stress," and only 59% reported being "very satisfied" in their jobs (Harris Interactive, 2013). Specifically, the challenges that today's principals cite include limited control over curriculum and instruction, the constraints of decreasing budgets, the diversity of students' individual needs and, for some, the difficulty of engaging parents and the community (Harris Interactive, 2013). Implementing the state standards, maintaining an environment of academic rigor, and evaluating teacher effectiveness are additional challenges named by today's principals (Harris Interactive, 2013). It is no wonder, then, that 75% of principals believe "the job has become too complex" (Harris Interactive, 2013, p. 5).

The role of a principal, as complex and challenging as it is, is one that is vital to the success of a school. Principal leadership has a significant impact, both directly and indirectly, on student achievement (Babo & Postma, 2017; Béteille, Kalogrides, & Loeb, 2012; Burkhauser, Gates, Hamilton & Ikemoto, 2012; Chetty, Friedman, & Rockoff, 2014; Fuller, Baker, & Young, 2007; Gamage, Adams, & McCormack, 2009; Horng, Klasik, & Loeb, 2010; Leithwood & Jantzi, 2008; Leithwood, Seashore-Louis, Anderson, & Wahlstrom, 2004; Seashore-Louis, Wahlstrom, Leithwood, & Anderson, 2010; Marzano, Waters, & McNulty, 2005; Robinson, Lloyd, & Rowe, 2008; Sun & Leithwood, 2015; Terziu, Hasani, & Osmani, 2016). In their book *School Leadership that Works: From Research to Results*, Marzano et al. (2005) quantified this impact, concluding from their review of research that the leadership behavior of the principal accounts for 25% of the academic achievement of the students in the school. In addition, a study of 172 New Jersey public elementary schools found a significant positive correlation between principal length of service and student performance on state tests (Babo & Postma, 2017).

Because most principals today do not have direct teaching responsibilities, the effect that they have on student outcomes primarily occurs through their influence on teachers. In many schools, principals are responsible for hiring teachers, and research shows that strong leaders staff schools with strong teachers (Béteille et al., 2012; Horng et al., 2010). In addition, strong principals positively impact student outcomes by influencing the instructional quality, motivation and working conditions of teachers (Fuller et al., 2007; Leithwood et al., 2004; Robinson et al., 2008; Seashore-Louis et al., 2010). Hence, principals impact student performance through their influence on teacher attitudes and classroom instruction.

Statement of the Problem

Given a principal's sizable impact on student achievement, principal attrition and mobility represent a barrier to the success of America's schools. According to the 2012 MetLife Survey of the American Teacher, nearly 25% of the principals in the United States leave their schools each year. The same survey revealed that nearly one in every three of the 500 principals surveyed were actively considering leaving the profession (Harris Interactive, 2013).

This high rate of principal turnover is problematic and detrimental to school success. Research shows that principal longevity is positively related to student achievement, whereas principal turnover has a negative effect on academic performance (Babo & Postma, 2017; Béteille et al., 2012; Burkhauser et al., 2012). In their study of first-year principals in urban school districts, Burkhauser et al. (2012) found that approximately 20% of new principals in urban districts leave their positions within one or two years, negatively impacting student performance. This dip in student achievement generally occurs shortly after the principal turnover occurs (Béteille et al., 2012; Miller, 2013).

In addition to academic decline, principal turnover results in teacher turnover and reluctance of teachers to invest in change (Fuller et al., 2007; Fuller, 2012; Hargreaves, Moore, Fink, Brayman & White, 2003; Miller, 2013; Ronfeldt, Loeb & Wyckoff, 2013). In his review of the literature on principal turnover, Fuller (2012) found that schools with high levels of principal turnover are also marked by high levels of teacher turnover. In addition, in schools with high principal turnover, teachers who do stay at their schools are not as likely to embrace and implement the change that new leadership brings, choosing instead to "wait out" the new principals (Hargreaves et al., 2003). Regarding teacher investment in change, research suggests that it takes an average of five years for a school leader to put a vision in place and see results (Seashore-Louis et al., 2010). However, the current rate of principal turnover often does not allow for this needed amount of time. In their study of Texas high school principals, Fuller and Young (2009) found that only half of newly hired principals stayed for as long as three years, and less than a third stayed beyond year five. Principal turnover has a negative effect on student achievement, teacher retention, and teacher motivation.

Due to the alarming rates of attrition and mobility among American principals, and the resulting negative impact on school success, it is essential to investigate the reasons for the frequent turnover in the principalship. There are various reasons, of course, that people leave their jobs. One such reason is retirement, but research shows that the majority of principals who leave their jobs do so for reasons other than retirement. According to the 2012 Principal Follow-Up Survey conducted by the National Center for Education Statistics (NCES, 2014), of the 12% of principals who left the principalship in 2012, only 38% left due to retirement (NCES, 2014). These attrition statistics are similar to those reported four years earlier in the 2008 Principal Follow-Up Survey (NCES, 2010), which found that of the 12% of principals who left the

principalship in 2008, only 45% left due to retirement (NCES, 2010). The majority of those leaving the principalship each year are leaving for reasons other than retirement, and the negative effects of principal turnover make it imperative for researchers to uncover what those reasons are.

Studies show that job satisfaction is positively related to intent to stay and negatively related to intent to leave (Fraser & Brock, 2006; Lu, While & Barriball, 2005; Tekleselassie & Villarreal, 2011). In their analysis of the 2003–2004 Schools and Staffing Survey, Tekleselassie and Villarreal (2011) found that job satisfaction was the primary factor in determining principals' mobility and departure intentions. In her study of twelve principals who had voluntarily quit the principalship, Johnson (2005) found that the six primary reasons principals leave their positions were a heavy workload; excessive managerial tasks; the physical and psychological toll of the job; a lack of autonomy in hiring, firing and budgeting; and finally profound isolation on the job (Johnson, 2005). These factors are all indicators of job dissatisfaction. Job satisfaction is a key factor to consider in pursuing the goal of principal retention.

Due to its positive relationship to principal retention, which impacts teacher retention, teacher motivation, and student achievement, principal job satisfaction has strong implications for school success. Thus, it is important to examine the factors that contribute to principal job satisfaction. Research shows that it is significantly related to a variety of extrinsic and intrinsic factors, including workload, autonomy, social support, role definition, and job recognition (Bauer & Brazer, 2013; Bauer & Stephenson, 2010; Chang, Leach & Anderman, 2015; Federici, 2013; Poppenhagen et al., 1980; Price, 2012). Dispositional factors related to principal job satisfaction include locus of control and self-efficacy (Federici & Skaalvik, 2012; Maforah &

Schulze, 2012; Richford & Fortune, 1984; Sari, 2005; Tschannen-Moran & Gareis, 2005). Self-efficacy is a term coined by social-cognitive psychologist Albert Bandura, who defined the concept as "people's beliefs about their capabilities to produce designated levels of performance that exercise influence over events that affect their lives" (Bandura, 1994, p. 71). Though the number of studies is few, research does show a link between self-efficacy and principal job satisfaction (Federici & Skaalvik, 2012; Maforah & Schulze, 2012; Richford & Fortune, 1984; Sari, 2005; Tschannen-Moran & Gareis, 2005). If a principal's level of self-efficacy is found to be positively related to his or her job satisfaction, then supports could be added in the field to cultivate and strengthen self-efficacy in school leaders. These supports could help them manage their approach to external factors that are largely out of their control, such as high workload and lack of autonomy. It is crucial to further investigate the impact of the dispositional factor of self-efficacy on principal job satisfaction.

Conceptual Framework

This study examines the relationship between self-efficacy and job satisfaction in school principals. According to Bandura (1982), self-efficacy impacts how people perform in difficult situations, and their level of persistence in the face of obstacles. Rather than being weighed down and mentally drained by stress in the midst of a problem or crisis, those with a strong sense of self-efficacy "deploy their attention and effort to the demands of the situation and are spurred to greater effort by obstacles" (Bandura, 1982, p. 123). Because research shows that principals face many complex tasks and encounter challenging situations on a regular basis, it is likely that self-efficacy would impact how they handle and view their jobs and ultimately, how satisfied they are in their positions.

The primary aim of this study was to describe the relationship between self-efficacy and

job satisfaction among school principals in New Jersey, when controlling for demographic characteristics. In addition, the study attempted to describe the mediating effect that self-efficacy has on the relationship between demographic characteristics and principal job satisfaction. Finally, the study revealed which of the three dimensions of principal self-efficacy (PSE)—instructional leadership, management, or moral leadership—has the strongest association with principal job satisfaction. The conceptual model shown in Figure 1 summarizes the aims of the study as described above.

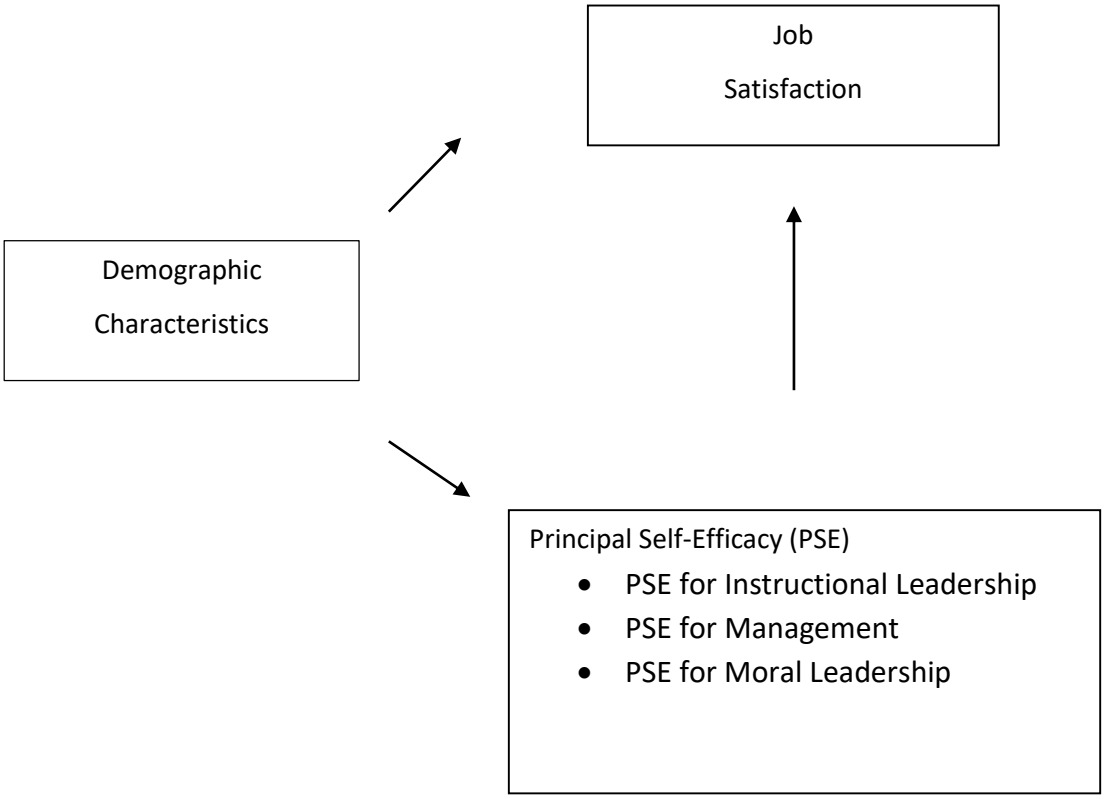

Figure 1. Hypothesized model of the relationship among principal self-efficacy (PSE), demographic characteristics, and job satisfaction.

Research Questions

The overarching research question for this study was as follows: What is the nature of the relationship between self-efficacy and principal job satisfaction?

The following research questions guided this study:

Research Question 1: What are the levels of self-efficacy and job satisfaction among currently employed public school principals in the state of New Jersey?

Research Question 2: What is the nature of the relationship between self-efficacy and principal job satisfaction when controlling for demographic characteristics?

Research Question 3: To what extent does self-efficacy mediate the impact of demographic characteristics on principal job satisfaction?

Research Question 4: Which of the dimensions of PSE (instructional leadership, management, or moral leadership) has the strongest association with principal job satisfaction?

Null Hypotheses

Null Hypothesis 1: There is no statistically significant relationship between self-efficacy and principal job satisfaction when controlling for demographic characteristics.

Null Hypothesis 2: PSE does not mediate the impact of demographic characteristics on job satisfaction.

Independent Variables

The primary independent variable in this study was PSE. The instrument used to measure PSE in the study, the 18-item Principal Self-Efficacy Scale (PSES) (Tschannen-Moran & Gareis, 2004), measures PSE as an overall construct and provides a breakdown of the construct into three dimensions: PSE for instructional leadership, PSE for management, and PSE for moral leadership.

The secondary independent variables, listed in Table 1 below, were the demographic characteristics of the principals, including personal characteristics and school characteristics.

Table 1

Demographic Characteristics Entered as Independent Variables

Personal characteristics	School characteristics
Gender of principal	Grade span
Age of principal	School size
Ethnicity of principal	School neighborhood or setting (urban/suburban)
Race of principal	Percentage of students on free or reduced-price lunch
Highest degree earned	
Years of experience as principal	
Years in current position	

Dependent Variable

The dependent variable in this study was principal job satisfaction. The instrument used to measure principal job satisfaction was the 20-item Minnesota Satisfaction Questionnaire Short-Form (MSQ) (Weiss, Dawis, England, & Lofquist, 1967). The MSQ produces a total score for general job satisfaction, along with scores for two subscales: intrinsic satisfaction and extrinsic satisfaction.

Design and Methodology

This quantitative, descriptive, correlational study used the results of a three-part survey, consisting of the MSQ (Weiss et al., 1967), the PSES (Tschannen-Moran & Gareis, 2004), and a demographic survey including items related to personal and school characteristics of the respondents.

Using the chosen design, I described the levels of self-efficacy and job satisfaction in a sample of New Jersey principals, and examined the relationship of self-efficacy and principal job satisfaction, when controlling for demographic characteristics. In addition, I used this study to explore self-efficacy as a possible mediator of the effect of demographic characteristics on principal job satisfaction, and to determine which of the dimensions of PSE had the strongest association with job satisfaction.

The sampling frame was limited to public school principals in the state of New Jersey during the 2017–2018 school year, totaling 2,526 principals, including principals of charter schools. The names of the 2,526 principals and their email addresses were obtained from the New Jersey Department of Education (NJDOE) website (https://homeroom5.doe.state.nj.us/directory/). This online database is accessible to the public and is updated every year by the state's education department. The data for this study were collected through an online survey which was sent to each of the principals via email. All data representing each of the participating principals were examined using correlation analysis and multiple regression analysis. Statistical analysis of the data provided evidence of the following: (a) the participants' levels of job satisfaction and self-efficacy; (b) the relationship between self-efficacy and principal job satisfaction, when controlling for demographic characteristics; (c) the mediating effect of PSE on the relationship between demographic characteristics and job satisfaction; and (d) the dimension of PSE with the strongest association to job satisfaction.

Significance of the Study

Principals play a pivotal role in school success. Principal retention positively influences student achievement, teacher retention, and teacher motivation. If the current rate of principal turnover continues, school performance will continue to be negatively affected. As job

satisfaction is strongly related to job retention, principal job satisfaction is a timely issue for study in order to understand the underlying factors underlying principals' decisions to stay or leave. To date, there has been little research that examines the effect of the dispositional factor of self-efficacy on principal job satisfaction. Research outcomes may enhance professional growth for principals, increase their job satisfaction, and assist principal preparation programs to ensure that prospective principals have the necessary self-knowledge and skills to succeed in their leadership roles. The research outcomes may inspire stakeholders including principals, superintendents, policymakers, principal preparation program staff, and professional development providers to become more aware of the link between principal retention and student achievement and may eventually lead to further support for principal success by building self-efficacy and increasing job satisfaction among principals.

Limitations of the Study

The following limitations were present in this study:

1. The study was cross-sectional, examining data collected at one point in time. A longitudinal study would provide data over a longer period of time and thus give a deeper understanding of the relationships between the variables being investigated.
2. The design of the study was correlational; therefore, it was descriptive and cannot be used to determine causality.
3. The sample was restricted to principals in public schools; therefore, the results cannot be generalized to nonpublic schools.
4. The sample was restricted to principals in the state of New Jersey, which creates limitations in generalizing the results to populations in other states.

5. The survey was distributed via email, and although the state of New Jersey updates its website annually with principals' contact information, there is a possibility that some names or email addresses were missing or were not current.
6. The survey was emailed by the New Jersey Principals and Supervisors Association (NJPSA) to 1,730 recipients from the NJPSA membership principal database. The survey was emailed again by me to the 2,526 principals listed on the NJDOE website, and three reminder emails were sent. It is possible that some participants may have completed and submitted the survey twice. It is also possible that retired principals who were still listed in the NJPSA database completed the survey.
7. Due to the nature of schools' web security, where emails are filtered for content and bulk emails are blocked, it is possible that the survey emails were not delivered to all intended recipients.

Assumptions of the Study

This study assumes the following:

1. The survey respondents were the principals selected to participate in the study.
2. The respondents answered the questions honestly.

Definitions of Terms

Intent to leave – "a conscious and deliberate willfulness to leave the organization" (Tett & Meyer, 1993, p. 262)

Intent to stay - the likelihood that an employee plans to remain with the organization (Kim, Price, Mueller, & Watson, 1996)

Job autonomy – "the degree to which the job provides substantial freedom, independence, and discretion to the individual in scheduling the work and in determining the procedures to be used in carrying it out" (Hackman & Oldham, 1975, p. 162)

Job satisfaction – "a pleasurable or positive emotional state resulting from an appraisal of one's job or job experiences" (Locke, 1976, p. 1300)

Organizational climate - a set of characteristics perceived by workers that affect their motivations and behavior (Litwin & Stringer, 1968)

Organizational commitment – the interest, time and energy that an employee is willing to devote to work (Eisenhardt & Martin, 2000)

Principal self-efficacy (PSE) - principals' "beliefs in their capability to make a difference in the schools they lead and to effectively manage the challenges they face" (Tschannen-Moran, 2005, para. 5)

Role definition - employees' interpretation of their job requirements (Clark, Zickar, & Jex, 2014)

School climate - social aspects of the learning environment including school members' interactions and relationships, shared values and norms, and the personal development and growth of the members (Lee et al., 2017)

Self-efficacy – "people's beliefs about their capabilities to produce designated levels of performance that exercise influence over events that affect their lives" (Bandura, 1994, p. 2); the belief in one's own ability to perform a given task (Bandura, 1994)

Work engagement – "a positive, fulfilling work-related state of mind that is characterized by vigor, dedication, and absorption" (Schaufeli, Salanova, González-Romá, & Bakker, 2002, p. 74)

Organization of the Dissertation

The problem statement is provided in Chapter 1, along with the purpose and significance of the study and the research questions. A conceptual framework that guided the research questions is also included in the first chapter. A review of the literature on job satisfaction and self-efficacy is contained in Chapter 2. The methodology of the study including the design, the tools, and the participants is included in Chapter 3. Chapter 3 also outlines the data collection methods and data analysis strategies. The results of the study are included in Chapter 4, along with answers to the research questions. Chapter 5 provides a detailed discussion of the results, including implications and suggestions for future research.

CHAPTER 2: Review of the Literature

The purpose of this study was to determine whether there is a relationship between self-efficacy and job satisfaction for public school principals in the state of New Jersey. This purpose guided the literature review, which used empirical and seminal literature to describe the relationship between self-efficacy and principal job satisfaction and to further the research on the relationship between job satisfaction and principals' demographic characteristics. The aim of this study was to provide policymakers, principal preparation program staff, superintendents, and principals themselves with evidence of variables that impact principal job satisfaction and strengthen principals' intent to stay.

Literature Search Procedures

The following online databases were accessed to research the literature for this review: Academic Search Complete, Directory of Open Access Journals, ERIC, JSTOR, ProQuest, PsycINFO, SAGE, and ScienceDirect. The keywords used to search the databases in the research included "efficacy," "job satisfaction," "leader," "principal," "school," and "self-efficacy."

Organization of the Literature Review

The following literature review begins with an introduction that outlines the problem statement and justification for the study and is followed by a review of the literature organized by topic. The review is divided into three topics: job satisfaction, self-efficacy, and the relationship between job satisfaction and self-efficacy. The chapter concludes with a section on the implications that the literature review has for this study and for future research.

Introduction

With nearly 25% of American school principals leaving their schools each year (Harris Interactive, 2013), it is imperative to examine the factors related to principal attrition and

mobility. Principal longevity is positively related to student achievement (Babo & Postma, 2017). Job satisfaction has been clearly linked to job retention and job commitment in both principal and non-principal samples (Locke & Latham, 1990; Lu et al., 2005; Price, 2012; Tekleselassie & Villarreal, 2011).

The existing literature on principal job satisfaction can be divided into two categories: (a) intrinsic and extrinsic factors related to principal job satisfaction and (b) demographic characteristics related to principal job satisfaction. One of the variables contributing to principal job satisfaction that has received little attention in the literature is the dispositional factor of self-efficacy. In addition to describing the characteristics and factors related to job satisfaction, the following review of literature examines the existing research on self-efficacy, including self-efficacy theory, the factors and demographic characteristics related to self-efficacy, and the relationship between self-efficacy and job satisfaction. Though the number of studies is few, the research does show a link between self-efficacy and principal job satisfaction. These findings provide justification for conducting further research on this potentially important relationship.

Job Satisfaction

Job Satisfaction Theory

Many theories of job satisfaction have emerged over the last 100 years. Prevalent job satisfaction theories include the hierarchy of needs theory (Maslow, 1943), the motivator-hygiene theory (Herzberg, 1959), the Job Characteristics Model (Hackman & Oldham, 1976), and the dispositional approach to job satisfaction (Judge & Larsen, 2001). This section of the review summarizes each of these job satisfaction theories.

Maslow's hierarchy of needs. In his paper, "A Theory of Human Motivation," Abraham Maslow (1943) argued that individuals' needs can be understood in hierarchical stages.

Maslow's theory posits that there are a series of needs that are common to all individuals. Those needs include physiological needs, safety, belonging, esteem, and self-actualization. According to Maslow, once a person's physiological and safety needs are met, he or she experiences the need for belonging, esteem, and self-actualization. Self-actualization refers to people's ability to identify their own potential and to begin to pursue meeting that potential (Maslow, 1943).

Maslow's (1943) theory diverged from Frederick Taylor's (1911) principles of scientific management developed in the heart of the Industrial Age, which put forth that workers are motivated mainly by pay. Taylor (1911) posited that workers need close supervision and high levels of structure to ensure productivity. His principles of management called for work to be broken down into small tasks. He held the belief that workers do not naturally enjoy work, and therefore, they need close monitoring and supervision. Maslow's (1943) theory, on the other hand, supported and expanded Mayo's (1933) Hawthorne studies, which revealed that employee motivation was greatly influenced by interpersonal relations at work. Threads of Maslow's theory can be also found in later theories, including McGregor's (1960) theory of X and Y which asserts that organizations either follow a theory X approach, which assumes that employees dislike their work, have little motivation and need an authoritarian management style, or a theory Y approach, under which managers have an optimistic and positive view of their employees. Maslow's hierarchy of needs serves as a foundation for future job satisfaction theories.

Motivation-hygiene theory. Frederick Herzberg (1959), an American psychologist and pioneer in the area of motivation theory, proposed that there are two categories of motivation sources that impact an employee's satisfaction: hygiene factors and motivators. According to Herzberg (1959), hygiene factors, or factors that are extrinsic to the work itself, such as salary and working conditions, generally do not increase satisfaction, but can decrease satisfaction if

they are missing. Alternatively, motivators—or factors that are intrinsic to the work itself, such as achievement and recognition—increase satisfaction, according to Herzberg (1959). Elements of Herzberg's (1959) theory can be found in work-motivation theories that emerged in later years, such as Adams' (1963) equity theory, which holds that workers compare themselves to peers based on the level of balance between the amount of work they put into a task and the results of that work. Similarities to Herzberg's (1959) theory are also found in Locke's range-of-affect theory (1976), which argues that satisfaction is based on the discrepancy between what one wants in a job and what one has in a job, and postulates that the more employees value a certain facet of their job, the less satisfied they are when it is missing, and the more satisfied they are when it is present. Paul Spector's (1985) job satisfaction model also stems from Herzberg's two-factor theory and asserts that the following 14 facets make up job satisfaction: appreciation, communication, coworkers, fringe benefits, job conditions, nature of the work, organization, personal growth, policies, procedures, promotion opportunities, recognition, security, and supervision. Herzberg's (1959) theory is the basis for many of the research studies conducted on the topic of job satisfaction.

Job Characteristics Model. A third theory of job satisfaction is the Job Characteristics Model by Hackman and Oldham (1976). This theory postulates that particular facets of a job, such as skill variety and task significance, impact an employee's internal work motivation, quality of work performance, satisfaction with work, and level of absenteeism and turnover.

Dispositional approach. The dispositional approach to job satisfaction supports the argument that job satisfaction is connected with personality and other affective constructs. This approach suggests that a person is predisposed toward a certain level of satisfaction, and that this level does not change dramatically over time, nor across changes in employer or occupation

(Judge, Locke & Durham, 1997). A longitudinal study following 248 participants from birth to adulthood found that people's dispositions from childhood and adolescence were significantly related to their job satisfaction as adults (Staw, Bell & Clausen, 1986). Using personality measurement instruments, the authors determined that if an individual had either a cheerful disposition or a negative disposition in their younger years, these affective characteristics carried through into adulthood (Staw et al., 1986). These results served to confirm the findings of earlier studies that revealed that dispositional factors affect job attitudes (Fisher & Hanna, 1931; Hoppock, 1935; Munsterberg, 1913).

Brief and Weiss (2002) argued that the affective component of job satisfaction has been largely ignored in the research and is a vital contributor to job attitudes. Judge and Bono (2001) conducted a meta-analysis of job satisfaction studies in which they looked specifically at dispositional or affective factors. Their results showed that dispositional factors such as self-esteem, self-efficacy, and emotional stability were significantly related to job satisfaction. Specifically, these researchers found that as measures of these dispositional areas increased for an individual, so did the individual's job satisfaction.

Many of the studies on principal job satisfaction have focused on the work's intrinsic and extrinsic factors, in line with Herzberg's (1959) motivator-hygiene theory. The dispositional approach has gained popularity in recent years as empirical support has continued to grow. The current study shifts the examination of principal job satisfaction from the lens of the motivator-hygiene theory to the lens of the dispositional approach.

Factors Related to Principal Job Satisfaction

The majority of studies on principal job satisfaction have looked at the construct of job satisfaction from the Herzberg (1959) two-factor theory approach, examining principals'

satisfaction with the intrinsic and extrinsic aspects of their work. A review of the research revealed that the extrinsic factors of salary, workload, policies, interpersonal relationships, and role definition, along with the intrinsic factors of achievement, recognition, work engagement, work content and job autonomy all have significant relationships to principal job satisfaction.

Although Herzberg (1959) asserted that hygiene factors have less of an impact on job satisfaction than intrinsic motivators, the literature of principal job satisfaction does suggest that most extrinsic factors—namely, salary, workload, policies, interpersonal relationships, and role definition—are significantly related to principal job satisfaction. Not surprisingly, the extrinsic factor of salary has consistently been found to be positively related to principal job satisfaction over the years (Darmody & Smyth, 2016; Friesen, 1983; Maforah & Schulze, 2012; Rogus, 1980; Saiti & Fassoulis, 2012; Sari, 2005; Sodoma & Else, 2009; Tekleselassie & Villarreal, 2011). Also, as one would expect, workload and working hours have been found to be negatively related to principal job satisfaction and positively related to principal mobility (Bauer & Brazer, 2013; Bauer & Stephenson, 2010; Friesen, 1983; Howard & Mallory, 2008; Karakose, Kocabaş & Yesilyurt, 2014; Maforah & Schulze, 2012; Rogus, 1980; Sodoma & Else, 2009; Tekleselassie & Villarreal, 2011; Wang, Pollock & Hauseman, 2018). Local, state and federal policies have historically had—and continue to have—an impact on principal job satisfaction, with principals reporting that they are less motivated by these than other factors, and that policies and administration are, in fact, sources of dissatisfaction (Iannone, 1973; Maforah & Schulze, 2012; Schmidt, 1976; Sodoma & Else, 2009).

The extrinsic factor of interpersonal relationships has, over the years, significantly influenced job satisfaction in a number of fields (Bauer & Brazer, 2013; Bauer & Stephenson, 2010; Fraser & Brock, 2006; Friesen, 1983; Friesen, Holdaway, & Rice, 1984; Gaziel, 1985;

Iannone, 1973; Izvercian, Potra, & Ivascu, 2016; Lu et al., 2005; Maforah & Schulze, 2012; Pinto, Dawood, & Pinto, 2014; Price, 2012; Rogus, 1980; Shahmohammadi, 2015; Sodoma & Else, 2009; Wong, Cheuk, & Rosen, 2000; Yu-Kwong & Walker, 2010). Researchers agree that the more social support or positive relationships principals have with their peers, the more satisfied they are (Bauer & Brazer, 2013; Bauer & Stephenson, 2010; Gaziel, 1985; Iannone, 1973; Maforah & Schulze, 2012; Rogus, 1980). Similarly, a principal's relationships with the teachers in the school are linked to his or her job satisfaction (Friesen et al., 1984; Iannone, 1973; Price, 2012; Rogus, 1980; Sodoma & Else, 2009; Wang et al., 2018). Regarding connections between principals and students, although Friesen et al. (1984) found that principals' relationships with students were not related to principal job satisfaction, other studies have found the opposite (Maforah & Schulze, 2012; Rogus, 1980). In fact, Maforah & Schulze (2012) reported that "the relationship between the principals and the learners was one of the most important sources of job satisfaction" (p. 234). There is, however, no dissension among researchers on the finding that a principal's relationship with his or her supervisor significantly influences job satisfaction (Fraser & Brock, 2006; Friesen et al., 1984; Iannone, 1973; Maforah & Schulze, 2012; Sodoma & Else, 2009; Wang et al., 2018; Wong, et al., 2000).

Similar to other fields (Lu et al., 2005), principal job satisfaction has also been linked to the extrinsic factor of role definition (Bauer & Brazer, 2013; Bauer & Stephenson, 2010; Eisenhauer, Willower, & Licata, 1985; Fraser & Brock 2006; Wang et al., 2018). In particular, Fraser and Brock (2006) found in their study of 20 principals of Catholic elementary schools that "clearly defined expectations for the principal role" were of major importance in retaining principals. In addition, role definition was found to be an especially important contributor to job satisfaction for new principals (Bauer & Brazer, 2013; Bauer & Stephenson, 2010).

Thus, as the literature suggests, the extrinsic factors of salary, workload, policies, interpersonal relationships, and role definition do influence principals' job satisfaction to varying degrees.

Regarding Herzberg's (1959) motivators, or intrinsic factors of job satisfaction, the literature points to achievement, recognition, work content and job autonomy as factors closely related to principal job satisfaction. Since as far back as the 1970's, achievement and recognition have been linked to principal job satisfaction (Friesen, 1983; Iannone, 1973; Rogus, 1980; Schmidt, 1976). Today, these two variables, particularly recognition, which is also significantly linked to job satisfaction in non-education fields (Lu et al., 2005), remain as significant factors in principal job satisfaction (Fraser & Brock, 2006; Maforah & Schulze, 2012; Saiti & Fassoulis, 2012; Sodoma & Else, 2009; Wang et al., 2018).

Work content is another intrinsic factor related to job satisfaction, according to the literature. In their study of 300 principals in Iowa's K–12 schools, Sodoma and Else (2009) found that principals tended to spend more time on management tasks than on instructional leadership tasks. The disproportionate amount of time that principals spend on management tasks has been found by these researchers and others to be a source of dissatisfaction for principals (Johnson, 2005; Maforah & Schulze, 2012; Sodoma & Else, 2009). Correspondingly, in a study of 1,423 elementary and secondary principals in Ontario, Canada, Wang et al. (2018) found that as principals spent more time on instructional leadership tasks, their job satisfaction increased.

Job autonomy, which has been linked to job satisfaction in various fields (Lu et al., 2015; Pinto et al., 2014), has also been found to be significantly related to principal job satisfaction and principals' intent to stay (Chang et al., 2015; Federici, 2013; Federici & Skaalvik, 2012; Friesen, 1983; Friesen et al., 1984; Maforah & Schulze, 2012; Price, 2012; Tekleselassie & Villarreal,

2011; Wang et al., 2018). In her analysis of the 2003–2004 Schools and Staffing Survey data, Price (2012) found that "principals with more autonomy have higher satisfaction and commitment levels, form better relationships with their staff, and improve school climate" (p. 70). Similarly, Chang et al. (2015) and Wang et al. (2018) found that job satisfaction was higher for principals who perceived their superintendents to be more autonomy-supportive.

The literature reviewed above confirms Herzberg's (1959) theory that, as in other fields, both extrinsic or hygiene factors and intrinsic motivators are linked to job satisfaction in principals. The next section of this review examines demographic characteristics related to principal job satisfaction.

Demographic Characteristics Related to Principal Job Satisfaction

Personal characteristics. Principal personal characteristics that have been studied in relation to principal job satisfaction include gender, age, years of experience, and level of education. Investigation of the literature shows that although each of these personal characteristics may have been linked to principal job satisfaction in select studies, none are consistently related to principal job satisfaction across the research.

There are mixed results in the research on the relationship between gender and principal job satisfaction. In a study of 164 female and 175 male high school principals in Illinois, Minnesota and Wisconsin, Eckman (2004) found that job satisfaction was similar for women and men. Ten years later, in a study of 139 school administrators in Turkey, no significant difference by gender was found among the principals' job satisfaction levels (Karakose et al., 2014). Chang et al. (2015) found, in a study of 1,501 K–12 public school principals in the United States, that gender was not a significant predictor of job satisfaction, and Wang et al. (2018) found the same in their study of 1,423 principals in Canada. However, not all researchers agree that gender has

no effect on job satisfaction. In a study of 33 principals of special-education schools in Turkey, women reported higher job satisfaction than men (Sari, 2005), and in their analysis of the 2003–2004 Schools and Staffing Survey data, Tekleselassie and Villarreal (2011) found that female principals are less likely to want to switch schools or to leave the principalship than male principals.

Age is another personal characteristic that researchers have looked to as a potential factor when measuring job satisfaction for principals. Much of the literature has found that there is not a direct link between age and principal job satisfaction (Chang et al. 2015; Eckman, 2004; Wang et al., 2018), although some findings may indicate a need further research. Karakose et al. (2014) found in their study of principals in Turkey that although the difference was not significant, principals who were 50 years and older reported slightly higher job satisfaction than principals under 50. This finding fits with the research on age and life satisfaction, which asserts that satisfaction follows a U-shaped curve with a dip in the middle-aged years (Clark, Oswald & Warr, 1996; Fukuda, 2013; Li, 2016). Also, in their analysis of the 2003–2004 Schools and Staffing Survey, Tekleselassie and Villarreal (2011) found that age contributed to departure intentions in school principals, with mobility and departure intentions decreasing as age increased. This finding may indicate that as principals get older and closer to retirement, there may be less opportunity for them to switch schools or careers.

The research is varied on the relationship between a principal's years of experience and his or her job satisfaction. Although Sari (2005) and Wang et al. (2018) found that years of experience were not related to a principal's job satisfaction, several other studies have found that principals with more experience have a higher level of satisfaction (Chang et al., 2015; Price,

2012; Sodoma & Else, 2009). Review of the literature points to a possible link between a principal's years of experience and job satisfaction.

A principal's level of education was not significantly linked to job satisfaction in recent studies (Chang et al., 2015; Wang et al., 2018); however, Tekleselassie and Villarreal (2011) found that principals with a doctoral degree were more likely to change schools than those with a master's degree. This finding may indicate that once they have earned a doctorate, principals have more opportunities available to them.

The literature on personal characteristics of principals as they relate to job satisfaction reveals that gender, age, years of experience and level of education are not consistently linked to principal job satisfaction, though some divergent studies exist. The next section of the review examines the literature on the relationship between school characteristics and principal job satisfaction.

School characteristics. School characteristics that have been studied in relation to principal job satisfaction include school setting (rural, urban, suburban), grade span (elementary, middle, high), school size, and school performance. The literature suggests that of these characteristics, school performance is the only variable that is consistently linked to principal job satisfaction.

Since as far back as 1980, researchers have looked at school setting or neighborhood as a factor when measuring job satisfaction of principals. The results of these studies have varied, with some researchers finding that setting does have an impact on principal job satisfaction, and others finding that it does not. In their survey of 292 principals in rural, urban and suburban districts, Poppenhagen et al. (1980) found that the setting did contribute to a principal's job satisfaction, with urban principals more uniformly satisfied and suburban principals varying

significantly in their levels of satisfaction. However, a survey of 45 principals by Johnston, Yeakey, and Winter (1981) found that the setting of the school district did not significantly affect job satisfaction. In more recent years, researchers continue to disagree on the impact of school setting on principal job satisfaction. Although Başer and Özel (2013) found that primary school principals in Turkey were less satisfied after moving from the city center to more rural areas, other studies have found that school setting was not significantly related to principals' job satisfaction (Darmody & Smyth, 2016; Vang, 2015). Tekleselassie and Villarreal (2011) found that principals in suburban areas were more likely to have an intention to leave their schools than principals in urban areas, contrary to some researchers' findings that principals were fleeing poor and disadvantaged schools (Fuller & Young, 2009). Chang et al. (2015) found that school setting did contribute significantly to job satisfaction in their study of 1,501 K–12 U.S. principals, with principals in suburban districts reporting significantly higher job satisfaction than those in urban districts. The literature is divided on the subject of school setting and its impact on job satisfaction.

The literature on the impact of grade span (elementary, middle, or high) on principal job satisfaction shows mixed results, as does the literature on school size and principal job satisfaction. Although Howard and Mallory (2008) found that high school principals reported that the job's time demands—they typically worked 60 to 90 hours per week—decreased their job satisfaction, more recent studies found grade span to have no link to principal job satisfaction (Chang et al., 2015; Wang et al., 2018). Regarding school size, although Eckman (2002) found that the number of students in the school did affect job satisfaction, with principals reporting that schools of 1,500 or more students were "less satisfying places to work" (p. 16), Tekleselassie and Villarreal (2011) found that school size was unrelated to mobility or departure intentions of

school principals. Although some studies suggest a link, the literature does not establish a consistent relationship between grade span or school size and principal job satisfaction.

In contrast, the literature overwhelmingly suggests that school performance is positively related to principals' job satisfaction (Harris Interactive, 2013; Maforah & Schulze, 2012; Vang, 2015). Vang (2015) found that a principal's demographic characteristics failed to diminish the key role that student achievement plays in determining job satisfaction, and Maforah and Schulze (2012) found that the pressure to improve student performance was a source of dissatisfaction for principals. In addition, a high number of student discipline incidents is negatively related to principal job satisfaction and positively related to a principal's intent to leave (Maforah & Schulze, 2012; Tekleselassie & Villarreal, 2011; Wang et al., 2018).

The literature, as evidenced by the studies reviewed above, highlights school performance as an influential characteristic on principal job satisfaction, and reveals that gender, age, years of experience, level of education, school setting, grade span, and school size are not consistent predictors of a principal's job satisfaction.

Although there are a host of studies that have examined demographic characteristics, along with the intrinsic and extrinsic factors of principal job satisfaction, few studies have looked at the dispositional approach to job satisfaction for principals. Specifically, an area where scant research is available is the relationship between self-efficacy and principal job satisfaction. Due to high principal turnover, it is important to study and understand all factors that are related to principals' job satisfaction. According to Wang et al. (2018), job satisfaction in principals is impacted by the intensity of the work demands. As work demands intensify for principals, those demands have the potential to drive principals out of the position or field. It is critical to examine whether dispositional factors, such as self-efficacy—the belief of an individual that he or she is

capable of handling the challenges posed—can positively impact a principal's job satisfaction. The following section of the literature review describes the theory of self-efficacy, factors and demographic characteristics related to self-efficacy, and the relationship between self-efficacy and job satisfaction.

Self-Efficacy

Self-Efficacy Theory

Self-efficacy, a term originally coined by social-cognitive psychologist Albert Bandura, is defined as "people's beliefs about their capabilities to produce designated levels of performance that exercise influence over events that affect their lives" (Bandura, 1994, p. 71). Stated another way, self-efficacy can be described as the belief in one's own ability to perform a given task (Bandura, 1994). Bandura asserted that there are four avenues to develop and enhance self-efficacy: performance mastery, vicarious experiences, verbal persuasion and physiological states (Bandura, 1977, 1982). The first two avenues, performance mastery and vicarious experiences, are the strongest ways to enhance self-efficacy, according to Bandura (1977, 1982). Success at a given task, or performance mastery, increases a person's efficacy beliefs in that area. In other words, after performing a task successfully, one believes in the likelihood that he or she will experience success in that area again. Although performance mastery has the strongest influence, vicarious experiences are also a powerful tool in enhancing self-efficacy. Bandura claims that modeling successful performance can cause those viewing that success to believe it is possible that they themselves can also successfully perform the given task (Bandura, 1977).

Self-efficacy leads to positive behavioral change, including taking action, pursuing goals, persisting, and coping (Bandura, 1977, 1982). The higher the efficacy beliefs of a person, the

more likely that person is to take action and persist in achieving goals and to view challenges or obstacles as motivators to work harder to achieve the goal (Bandura, 1977, 1982). Self-efficacy has been linked to coping behaviors as well, with higher levels of self-efficacy ensuring higher levels of coping in difficult situations (Bandura, 1977, 1982).

Self-efficacy has a negative correlation with both fear and anxiety (Bandura, 1977, 1982). Those who possess high self-efficacy are able to summon more strength in fearsome situations, whereas lower efficacy beliefs cause fears and anxious thoughts to prevail (Bandura, 1977, 1982). People who perceive their fearsome thoughts to stem from their inadequacies, rather than from situational factors, lower their self-efficacy (Bandura, 1977, 1982). People with low efficacy beliefs in a particular area are likely to give up more readily, to refuse to attempt the task, or to fail at the given task (Bandura, 1977, 1982). Those with lower efficacy beliefs are also likely to yield control to those with higher self-efficacy (Bandura, 1982).

Bandura (1994) asserts that success in a high-level job with a good deal of accountability requires not only a certain level of skill and extrinsic rewards, but also a high level of self-efficacy. According to Bandura (1994), "self-efficacy beliefs determine how people feel, think, motivate themselves and behave" (p. 71). It makes sense then, that job satisfaction for the school principal would likely be influenced by self-efficacy beliefs. The following section of the literature review examines factors found to be related to self-efficacy in non-principal and principal samples.

Factors Related to Self-Efficacy in Non-Principal Samples

Self-efficacy and personal achievement. The existing literature points to a link between self-efficacy and a variety of variables related to personal achievement, including personal accomplishment, learning, risk-taking, purposeful action, and persistence. Self-efficacy has been

found to be positively related to personal accomplishment and learning. In their study of 490 high-school teachers in the Netherlands, Evers, Brouwers, and Tomic (2002) found that self-efficacy was positively related to personal accomplishment. Zimmerman (2000) claims that student self-efficacy is predictive of achievement outcomes, an assertion consistent with findings of Martocchio and Judge (1997) that self-efficacy was positively related to learning for adult students in a computer-software training course. In a similar vein, the majority of the literature shows that self-efficacy has been linked to risk-taking, purposeful action, and persistence in pursuing goals. Evers et al. (2002) found that teachers with strong self-efficacy beliefs were more prepared to experiment with new educational practices. Gruman, Saks, and Zweig (2006) found self-efficacy to be positively related to proactive behaviors in university students, and Schunk (1995) found that students with higher self-efficacy were more persistent in solving complex mathematics problems than those with lower self-efficacy. Diverging from this pattern, however, were the results of a study by Whyte and Saks (2007), which found that, when presented with negative feedback, geologists with high self-efficacy were not more persistent in their search for oil than those with lower self-efficacy. The researchers hypothesized that this outcome could have been a result of the geologists interpreting the negative feedback as a legitimate reason to cease searching in that particular area, as there was not likely to be oil found there, which would speak to the efficiency and discernment of this group of scientists. Overall, the existing literature indicates that self-efficacy is linked to personal accomplishment, learning, risk-taking, purposeful action, persistence and risk-taking.

Self-efficacy and workplace behaviors. The literature shows that self-efficacy can have a positive effect in the workplace. Work performance, organizational commitment and work engagement have been found to be positively related to self-efficacy in a variety of fields

(Federici & Skaalvik, 2011; Locke & Latham, 1990; Luthans & Peterson, 2002; Paglis & Green, 2002; Schunk, 1995; Skaalvik & Skaalvik, 2014). In his review of various studies on self-efficacy, Schunk (1995) asserts that self-efficacy predicts both performance and motivation. Locke and Latham (1990) support this assertion, claiming that "if high challenge is accompanied by high expectancy of success or self-efficacy, high performance results" (p. 240). Locke and Latham (1990) further contend that high performance leads to higher job satisfaction, and that high job satisfaction leads to organizational commitment. In a study on self-efficacy in business managers, Paglis and Green (2002) also found that self-efficacy was related to a manager's organizational commitment. Work engagement is another byproduct of self-efficacy. In their study of 2,569 elementary and middle school teachers in Norway, Skaalvik and Skaalvik (2014) found that self-efficacy was a predictor of work engagement. The literature clearly supports that self-efficacy is positively related to work performance, commitment and engagement.

Self-efficacy and organizational climate. In addition to the positive links between self-efficacy and personal achievement and between self-efficacy and workplace behaviors, the literature strongly suggests that the self-efficacy of an organization's leader is positively related to the organizational climate. Hannah, Avolio, Luthans, and Harms (2008) contend that a leader's self-efficacy enhances organizational climate by increasing followers' trust in their leaders. Similarly, Hannah et al. (2008) found in their review of literature that leaders' self-efficacy influenced the efficacy of employees. The literature on the self-efficacy of leaders suggests that it has a positive impact on the success of an organization and its employees. The next section of the literature review addresses the research on factors related to PSE.

Factors Related to Self-Efficacy in Principal Samples

PSE and personal achievement and workplace behaviors. PSE is defined as principals' "beliefs in their capability to make a difference in the schools they lead and to effectively manage the challenges they face" (Tschannen-Moran, 2005, para. 5). Self-efficacy in principals has been linked to personal achievement and positive workplace behaviors. In their study of 112 Florida principals and their reaction to state and federal policies, McCullers and Bozeman (2010) found that high self-efficacy for the goals of a particular policy led to purposeful leadership action in pursuit of those goals. Osterman and Sullivan (1996) found that principals with high self-efficacy tend to be more adaptable to change and more persistent in pursuing goals, and McCollum and Kajs (2009) found, in their study of 312 early-career principals, that school administrators with high self-efficacy tend to pursue challenges and have high achievement. Similarly, Federici and Skaalvik (2011) reported that self-efficacy was positively related to work engagement in school principals.

PSE and school climate. Though the literature indicates that PSE is not directly related to student achievement (Leithwood & Jantzi, 2008), it has been found to influence school climate. Eberhard (2013) asserts that as principals model self-efficacy, it raises the efficacy of the whole school, and thereby impacts student learning. In particular, the literature points to the impact that PSE has on leadership behavior, such as developing people, setting directions, managing instruction and redesigning the organization (Leithwood & Jantzi, 2008; Lowrey, 2014). In a survey of 121 midwestern school principals, Lyons and Murphy (1994) found that principals with higher self-efficacy were less likely to exert external power in their relationships with teachers. This finding fits with the research of Tschannen-Moran and Gareis (2004), who found that PSE was positively correlated to trust in teachers. Therefore, just as the self-efficacy

of a leader has the potential to influence organizational climate in non-school settings, PSE can influence school climate. The following section examines the relationship between demographic characteristics and PSE.

Demographic Characteristics Related to PSE

Personal characteristics related to PSE. Personal characteristics of principals that have been found in the literature to be related to self-efficacy include age, years of experience, gender, and race. The research is varied on whether there is a significant relationship between each of these characteristics and PSE.

In his study of the self-efficacy of 74 middle school principals in the Midwest, Lucas (2003) found that there was a significant positive correlation between principal age and self-efficacy in the areas of faculty staffing and professional development, organizational practices for relationships, and overall implementation of middle-level practices. This finding may reveal that as principals get older, they are more likely to have successfully performed tasks in these areas, causing their self-efficacy to increase.

Regarding years of experience, although some studies showed that a principal's level of experience was not related to PSE (Lucas, 2003; Tschannen-Moran & Gareis, 2004), others have found that this was, in fact, a significant factor. Diverging from DeMoulin's (1992) findings that older principals with more experience had lower self-efficacy than their counterparts, Oplatka (2004) found that middle- and later-career principals reported a higher level of self-efficacy than their less-experienced peers. Similarly, in a study of 123 principals in Israel, Fisher (2014) found that the highest levels of self-efficacy were found in the principal's first year, with major dips in the second year and up to their fifth year. He also found that self-efficacy starts to rise again after a principal's fifth year and stabilizes after 10 years (Fisher, 2014).

Again, research results vary on the influence of gender on self-efficacy, but a review of the literature does show a possible link. Although, in their study of 544 Virginia principals, Tschannen-Moran and Gareis (2004) found that gender was not related to PSE, a year later, in the regression analysis of their 2005 study of 558 Virginia principals, the same researchers found that female principals perceived higher self-efficacy than their male counterparts (Tschannen-Moran & Gareis, 2005). Similarly, in their study of 284 principals from twelve states, Smith, Guarino, Strom, and Adams (2006) found that females scored higher on PSE than males. However, Imants and DeBrabander (1996) found the opposite, asserting that due to lower self-efficacy levels, women were underrepresented in the field of school administration. This finding may be due to the fact that the study had been conducted 10 years earlier, when fewer females served as principals.

Although Tschannen-Moran and Gareis (2005) found no relationship between race and self-efficacy in their study of 558 Virginia principals, the same researchers had found that race was related to PSE in their study of 544 Virginia principals a year earlier, with white principals reporting slightly higher self-efficacy than black principals (Tschannen-Moran & Gareis, 2004).

The literature suggests that a principal's personal characteristics of age, years of experience, gender, and race can be related to PSE; however, these relationships are not consistent across the research. The next section examines the literature on the relationship between school characteristics and PSE.

School characteristics related to PSE. In addition to personal characteristics, researchers have also examined school characteristics, including socioeconomic status, school setting, and school size in relation to PSE. Of these school characteristics, the literature points to a possible link between school size and PSE.

The research shows mixed results regarding socioeconomic status of students and the self-efficacy of the principal. Smith et al. (2006) found that principals with more students on free and reduced-price lunch scored higher in self-efficacy than their counterparts; however, other studies revealed that the socioeconomic status of the students in the school did not significantly predict PSE (Tschannen-Moran & Gareis, 2004, 2005). Research shows that school setting (rural, urban, suburban) and grade span (elementary, middle, high) are not related to PSE (Tschannen-Moran & Gareis, 2005). School size and PSE have been found to be related, but the nature of the relationship differs among studies. Smith et al. (2006) found that principals of larger schools reported higher self-efficacy, whereas DeMoulin (1992) found that "low-efficacy principals had higher building populations" (p. 1). In the above review of the research, the findings vary as far as whether the school characteristics of socioeconomic status and school setting have the potential to influence a principal's self-efficacy; however, school size emerges as a variable that may relate to PSE.

Relationship between Self-Efficacy and Job Satisfaction

Self-Efficacy and Job Satisfaction in Non-Principal Samples

Although there are few studies that specifically examine the relationship of self-efficacy and principal job satisfaction, a number of researchers have examined the influence of self-efficacy on job satisfaction in other fields. This literature overwhelmingly supports a positive relationship between self-efficacy and job satisfaction. Judge and Bono (2001) conducted a meta-analysis of 135 studies of personal traits in various professionals and found that self-efficacy, along with emotional stability, locus of control and self-esteem, had a positive correlation with job satisfaction. Judge's (2009) review of research on self-efficacy revealed that those with higher self-efficacy were more successful and more satisfied, coped more effectively

with setbacks, and took advantage of more opportunities. Similarly, in their study of physicians, business school graduates, and students, Judge, Locke, Durham, and Kluger (1998) found that self-efficacy had direct effects on job and life satisfaction. Hsieh, Hsieh, and Huang (2017) found in their study of 315 frontline employees in Taiwan that self-efficacy mediated the relationship between emotional labor and job satisfaction. Tojjari, Esmaeili and Bavandpour (2013) found that football referees in Iran with high self-efficacy enjoyed a higher job satisfaction, and in a study of first- and second-year auditors from a Big Four accounting firm, McNatt and Judge (2008) found that self-efficacy interventions bolstered job satisfaction and reduced intentions to quit. A study in Italy showed that of 241 public- and private-sector workers, those with higher self-efficacy experienced greater job satisfaction (Guarnaccia, Scrima, Civilleri & Salerno, 2016). Similarly, a study of 422 Russian employees in various industries revealed that self-efficacy is positively related to career satisfaction (Yalalova, Li & Durrani, 2017).

Within the education field, there have been several studies conducted on the self-efficacy and its relationship to job satisfaction. Overwhelmingly, researchers have found that teachers with higher self-efficacy experience greater job satisfaction (Blackburn & Robinson, 2008; Klassen & Chiu, 2010; Skaalvik & Skaalvik, 2010; Yildirim, 2015). Similarly, in their study of secondary-school vice principals in Hong Kong, Yu-Kwong and Walker (2010) found that a sense of efficacy proved to be a source of overall job satisfaction for vice principals.

Investigation of the literature points to a clear link between self-efficacy and job satisfaction in non-education and education fields alike. The next section details the findings in the literature on the relationship between self-efficacy and job satisfaction in school principals.

Self-Efficacy and Job Satisfaction in Principal Samples

There has been little research conducted to determine the relationship between self-efficacy and principal job satisfaction; however, those studies that have been done do indicate a link between the two variables (DeMoulin, 1992; Federici & Skaalvik, 2012; Maforah & Schulze, 2012; Richford & Fortune, 1984; Sari, 2005; Tschannen-Moran & Gareis, 2005). Richford and Fortune (1984) studied the job satisfaction of 225 secondary principals in Virginia and found that the principals' internal locus of control, or "the extent to which they feel personally and socially efficacious" (p. 19), was positively related to job satisfaction. More than a decade later, also in Virginia, Tschannen-Moran and Gareis (2004) found that higher self-efficacy was slightly related to higher job satisfaction in 544 elementary, middle, and high school principals, where principals with higher self-efficacy reported that, given the opportunity, they "would do it all over again" (p. 580). In his study of the impact of self-efficacy on motivation and stress in 212 elementary, middle, and secondary principals in the midsouthern and northeastern United States, DeMoulin (1992) found that principals with high self-efficacy used fewer sick days, whereas principals with low self-efficacy used "an extremely high number of sick/personal days" (p. 1). DeMoulin (1992) along with Tschannen-Moran and Gareis (2005) called for further research on PSE, asserting that longitudinal studies of principals' self-efficacy beliefs over the various stages of their careers would be helpful in providing needed support to school leaders.

Outside the United States, studies that examine PSE as it relates to principal job satisfaction have pointed to a clear link between the two constructs. Maforah and Schulze (2012) found that a sense of self-efficacy significantly impacted overall job satisfaction in 30 secondary principals of rural schools in South Africa, and Sari (2005) found a positive correlation between

self-efficacy and job satisfaction in his study of 33 principals of special-education schools principals in Turkey. Federici and Skaalvik (2012) studied the self-efficacy of 1,818 elementary and middle school principals in Norway and found that self-efficacy, while negatively related to burnout, was positively related to job satisfaction. The results of this study also indicated a moderately positive relationship between PSE and motivation to leave the principal position, which was interpreted by the researchers as possibly suggesting that principals with higher self-efficacy may be confident enough to pursue another position (Federici & Skaalvik, 2012).

The literature on the relationship between self-efficacy and principal job satisfaction, although limited in volume, reveals a positive link between the two variables. The following section details the implications the literature discussed above has for the research community in the area of self-efficacy as it relates to principal job satisfaction.

Implications

The above review of the research shows that extrinsic factors including salary and workload and intrinsic factors including autonomy and recognition are significant contributors to a principal's job satisfaction. Principal job satisfaction, in turn, is linked to school performance. The existing research only touches on the relationship between PSE and job satisfaction, but in that small body of research, it appears that the self-efficacy of a principal does impact his or her job satisfaction. Given the current problem of principal turnover in American schools, it is important to study and understand the factors that are related to principals' job satisfaction. Self-efficacy is one such factor, though largely unexplored. The above review of research underscores the need for a continued and deeper look at the dispositional factor of self-efficacy as it relates to principal job satisfaction.

CHAPTER 3: Methodology

The purpose of this study was to describe the relationship between self-efficacy and job satisfaction for public school principals in the state of New Jersey. Self-efficacy was selected as the variable of interest, because although research indicates that there is a link between job satisfaction and the dispositional factor of self-efficacy in various fields, few studies have examined this relationship within the school principalship. This study utilized the Principal Self-Efficacy Scale (PSES) developed by Tschannen-Moran and Gareis (2004) and the Minnesota Satisfaction Questionnaire Short-Form (MSQ) developed by Weiss et al., (1967). As the chief of his or her school, the school principal faces significant responsibilities and great challenges each day. As principals are faced with these challenges, many are left dissatisfied for a variety of reasons. Principal dissatisfaction is a key factor in principal turnover, which has a negative impact on school success. Researchers have identified that job satisfaction in principals is influenced by a combination of intrinsic and extrinsic factors (Bauer & Brazer, 2013; Chang et al., 2015; Federici, 2013; Federici & Skaalvik, 2012; Maforah & Schulze, 2012; Price, 2012). Dispositional factors, such as self-efficacy, have rarely been examined by researchers studying principal job satisfaction. Surveying New Jersey's principals about their levels of self-efficacy and job satisfaction and analyzing the relationship between these two variables has furthered the research on the effect of dispositional factors on principal job satisfaction. This research has implications for policymakers, principal preparation program staff, superintendents, professional development providers and principals themselves and should help in the search for ways to bolster principal job satisfaction and strengthen principals' intent to stay.

Research Questions

The overarching research question for this study was as follows: What is the nature of the relationship between self-efficacy and principal job satisfaction?

Research Question 1: What are the levels of self-efficacy and job satisfaction among currently employed public school principals in the state of New Jersey?

Research Question 2: What is the nature of the relationship between self-efficacy and principal job satisfaction when controlling for demographic characteristics?

Research Question 3: To what extent does self-efficacy mediate the impact of demographic characteristics on principal job satisfaction?

Research Question 4: Which of the dimensions of PSE (instructional leadership, management, or moral leadership) has the strongest association with principal job satisfaction?

Null Hypothesis

Null Hypothesis 1: There is no statistically significant relationship between self-efficacy and principal job satisfaction when controlling for demographic characteristics.

Null Hypothesis 2: PSE does not mediate the impact of demographic characteristics on job satisfaction.

Organization of the Chapter

This chapter outlines the plan used to obtain answers to the research questions and addresses why the plan was appropriate and reliable for this study. The overall design of the study is discussed, including the context for and the participants in the study. The data sources are identified, as are the selected instruments used to collect the data, and the reliability and validity of those instruments are discussed. Data collection procedures and the strategies used in analyzing the data are also discussed.

Research Design

The research design for this study was a quantitative, descriptive, correlational design. This cross-sectional study utilized an online survey to identify the levels of self-efficacy and job satisfaction as reported by a sample of public school principals in the state of New Jersey. The design was appropriate for this study, as quantitative survey research is generally used to describe current conditions, and correlational research investigates relations between two variables (Gay, Mills, & Airasian, 2012). The current levels of job satisfaction and self-efficacy in the principal sample were summarized through a descriptive statement. Correlational analysis was used to explore the nature of the relationship between self-efficacy and job satisfaction among school principals in New Jersey. A cross-sectional approach provides "a snapshot of the current behaviors, attitudes, and beliefs in a population" (Gay et al., 2012, p. 185), which aligned with the primary aim of this study. The participants were recruited only after the institutional review board (IRB) at Seton Hall University approved the study.

Study Sample

According to the NJDOE (2018), there were 2,526 public school principals in New Jersey during the 2017–2018 school year. The sample for this study was initially recruited by the communications director of the NJPSA, using names in the association's electronic membership database. The survey was emailed by the communications director to each individual in the NJPSA database whose title was "principal." However, because not all New Jersey school principals are members of NJPSA, a follow-up email was sent out to every school principal listed on the website of state's education department using the email addresses provided on that website. This study intended to recruit 758 participants, or about 30% of the New Jersey public school principals. General rules for determining sample size state that for a population size of

500, 50% should be sampled, and for a population size of 1,500, 20% should be sampled (Gay et al., 2012). Therefore, the sample size was adequate for this study. The inclusion criteria required that participants were currently employed as public school principals in the state of New Jersey. The exclusion criteria specified that principals who were not currently employed or were serving in non-public schools would not be included in the study.

Potential participants were selected from a database of school principals on the NJDOE website. All 2,526 New Jersey public school principals at the elementary, middle, and secondary levels, including principals of charter schools, were solicited for participation in the study. The list of recipients and their email addresses were obtained from the school directory on the NJDOE website https://homeroom5.doe.state.nj.us/directory/. This list is updated every year by the state department of education. The survey was distributed via email. Email addresses of the participants were hidden from fellow participants. To protect the privacy of the participants, the survey questions did not ask for any identifying information. The survey was configured through SurveyMonkey, an online survey tool, and was designed to be anonymous. SurveyMonkey allows the creator of the survey to decide whether he or she would like to have access to the collected IP addresses. I opted not to view the collected IP addresses, so that the data collected were strictly anonymous.

Framework of the Study

This study describes the relationship between self-efficacy and job satisfaction in New Jersey school principals. Principal job satisfaction is declining according to the 2012 MetLife Survey (Harris Interactive, 2013). It is important to investigate and identify the factors influencing principal job satisfaction, as these data can be useful in attempting to reduce the high rate of turnover currently occurring in the principalship.

Principal job satisfaction research has focused on intrinsic and extrinsic factors such as salary, workload, interpersonal relationships, and role definition. The dispositional factor of self-efficacy is rarely discussed in the literature on principal job satisfaction, though self-efficacy has been found to be positively related to job satisfaction in a number of other fields (Blackburn & Robinson, 2008; Hsieh et al. 2017; Judge, 2009; Judge et al., 1998; Judge & Bono, 2001; Klassen & Chiu, 2010; Locke & Latham, 1990; McNatt & Judge, 2008; Skaalvik & Skaalvik, 2010, 2014; Tojjari et al., 2013; Yildirim, 2015; Yu-Kwong & Walker, 2010). A small number of studies in the United States and abroad reveal a possible link between self-efficacy and principal job satisfaction (DeMoulin, 1992; Federici & Skaalvik, 2012; Maforah & Schulze, 2012; Richford & Fortune, 1984; Sari, 2005; Tschannen-Moran & Gareis, 2005). Exploring the potential relationship between these two constructs for principals in New Jersey can shed further light on the factors influencing principal job satisfaction.

The study participants completed a survey composed of questions regarding job satisfaction, self-efficacy beliefs, and demographic characteristics (see Appendix A).

Data Collection Procedure

Survey methodology was used to collect the data for this study. The advantages of using this method are that online surveys are efficient, inexpensive, easily standardized, and confidential; however, the disadvantages are that they are subject to low response rates, they do not allow the researcher to ask probing or follow-up questions, and not all potential respondents have email service (Gay et al., 2012). Upon evaluation for purposes of this study, the advantages were believed to outweigh the disadvantages of this approach. In addition, because the research topic required participants to reveal sensitive information regarding their work environment and

personal demographic characteristics, an online survey tool was deemed the best choice for this study.

The sampling frame for this study included all public school principals in New Jersey during the 2017–2018 school year, including charter school principals. A letter of solicitation was forwarded via email by the NJPSA communications director to the principals who were part of the NJPSA's membership. The letter provided a statement of confidentiality and directions for accessing the survey on Surveymonkey.com. Participants were informed that they were free to discontinue their participation at any time. One month was allotted for those who received the initial invitation to access the survey. Because the NJPSA membership included only 1,730 of the 2,526 public school principals in New Jersey, I also sent the solicitation email directly to all 2,526 public school New Jersey principals. I accessed a list of their names and email addresses from the school directory on the NJDOE website, https://homeroom5.doe.state.nj.us/directory/. The survey was open for a total of 14 weeks, during which time three reminder emails were sent. A total of 823 school principals responded to the survey, which was sufficient, as it was anticipated that the response rate would be approximately 30%, or a total of 758 respondents. Participants' names, school locations, and other identifying information were not included in the survey. As each participant completed and submitted the survey, the data were electronically stored on Surveymonkey.com.

Instrumentation

The instrumentation used in this study included three instruments combined into one online survey: the MSQ (Weiss et al., 1967), the PSES (Tschannen-Moran & Gareis, 2004), and a demographic questionnaire. Both the MSQ and the PSES utilized a Likert-scale, which is appropriate when attitudes, beliefs and behaviors are measured (Losby & Wetmore, 2012), as

was the case with the present study. I developed the demographic questionnaire to collect personal and school characteristics of the participants such as gender, age, race, years of experience, school setting, and so on.

Job Satisfaction Instrumentation

The instrument that was used to measure job satisfaction in this study was the 20-item MSQ (Weiss et al., 1967). A host of tools have been developed over the years to measure job satisfaction. According to Hora, Júnior and Souza (2018), the two most widely used instruments to measure job satisfaction in the United States are the Job Satisfaction Survey (JSS) (Spector, 1985) and the MSQ (Weiss et al., 1967). The 36-item JSS produces a total satisfaction score and breaks job satisfaction down into various dimensions including pay, fringe benefits, coworkers, nature of work, and more (Spector, 1985). The 20-item MSQ (Weiss et al., 1967) produces a score for intrinsic satisfaction, extrinsic satisfaction, and general satisfaction (Weiss et al., 1967). Both the JSS and the MSQ would provide the data that fit with the research questions of this study. However, the MSQ (Weiss et al., 1967) was chosen because of its length and its close alignment with Herzberg's (1959) two-factor theory, which was the commonly used theoretical framework for prior studies on principal job satisfaction.

Minnesota Satisfaction Questionnaire Short-Form (MSQ). The MSQ (Weiss et al., 1967) was designed to measure an employee's job satisfaction. The reliability coefficients Weiss et al. (1967) obtained for the MSQ were generally high. The coefficients ranged from .84 to .91 for the intrinsic satisfaction scale, with a median coefficient of .86, while reliability coefficients for the extrinsic scale ranged from .77 to .82, with a median of .80. For the general satisfaction scale, the coefficients ranged from .87 to .92, with a median reliability coefficient of .90. Test-retest correlations of general satisfaction scale scores were run over a one-week period and over

a one-year period, yielding coefficients of .89 and .70 respectively (Weiss et al., 1967). Each item on the MSQ (Weiss et al., 1967) begins with the phrase: "On my present job, this is how I feel about…." The three scores produced from the MSQ (Weiss et al., 1967) are the intrinsic satisfaction score, the extrinsic satisfaction score, and the general satisfaction score. The general satisfaction score includes the twelve-item intrinsic scale, the six-item extrinsic scale, and two additional items about coworkers and working conditions. The intrinsic satisfaction scale measures the respondent's job satisfaction as it relates to the intrinsic facets of work, including independence, variety, moral values, creativity, and more (Weiss et al., 1967). The extrinsic satisfaction scale measures the extent of the respondent's job satisfaction in the areas of technical and relational supervision received, along with compensation and other extrinsic factors. The 20 items on the MSQ (Weiss et al., 1967) and the facets for each item are presented in Table 2. A Likert 5–point forced-response rating scale was used to collect the data. The scale asked participants to rate their satisfaction level for each item as one of the following: 5 = *very satisfied*, 4 = *satisfied*, 3 = *neither satisfied nor dissatisfied*, 2 = *dissatisfied*, or 1 = *very dissatisfied*. This part of the survey included 20 items and was approximated to take five minutes to complete.

Table 2

Items and Corresponding Facets on Minnesota Satisfaction Questionnaire Short-Form (MSQ)

Facets	Item #	Item
Intrinsic		
Activities	1	Being able to keep busy all the time
Independence	2	The chance to work alone on the job
Variety	3	The chance to do different things from time to time
Social status	4	The chance to be somebody in the community
Moral values	7	Being able to do things that don't go against my conscience
Security	8	The way my job provides for steady employment
Social service	9	The chance to do things for other people
Authority	10	The chance to tell people what to do
Ability utilization	11	The chance to do something that makes use of my abilities
Responsibility	15	The freedom to use my own judgment
Creativity	16	The chance to try my own methods of doing the job
Achievement	20	The feeling of accomplishment I get from the job
Extrinsic		
Supervision-human	5	The way my boss handles his/her workers
Supervision-technical	6	The competence of my supervisor in making decisions
Company policies	12	The way company policies are put into practice
Compensation	13	My pay and the amount of work I do
Advancement	14	The chances for advancement on this job
Recognition	19	The praise I get for doing a good job
Other		
Working conditions	17	The working conditions
Co-workers	18	The way my co-workers get along with each other

Note. Descriptive note. Adapted from "Manual for the Minnesota Satisfaction Questionnaire," by D. J. Weiss, R. V. Dawis, G. W. England, and L. H. Lofquist, *Minnesota Studies in Vocational Rehabilitation, 22*. Copyright 1967 by the University of Minnesota.

Self-Efficacy Instrumentation

There are several established survey tools available to measure self-efficacy. Because the sample for this study was limited to school principals, and the focus was to discover how efficacious these principals were in their jobs and how that workplace self-efficacy related to their job satisfaction, it was decided that a tool that specifically measured principal self-efficacy (PSE) should be used. There are two known survey tools designed to measure self-efficacy of U.S. principals: the PSES (Tschannen-Moran & Gareis, 2004) and the Principal Self-Efficacy Survey (Smith et al., 2006). Outside the United States, the Brama-Friedman Scale was developed to measure the self-efficacy of principals in Israel (Brama & Friedman, 2007), and the Norwegian Principal Self-Efficacy Scale was developed by Federici and Skaalvik (2011).

The Principal Self-Efficacy Survey for use in the United States was developed by Smith et al. (2006) as part of a study that included 284 principals from 12 U.S. states. This survey contains 14 items that assess the domains of instructional leadership and management skills, and the survey demonstrated internal consistency measured with Cronbach's alpha coefficients of .86 and .74 for instructional leadership and management practices, respectively (Smith et al., 2006).

The 18-item PSES was developed by Tschannen-Moran and Gareis (2004) as an adaptation of the Teacher Self-Efficacy Scale (TSES) (Tschannen-Moran & Woolfolk Hoy, 2001), and it was administered to 544 public school principals across Virginia to measure principal self-efficacy (PSE). It was tested for reliability, and the Cronbach's alpha coefficient for internal consistency was .91 for the overall 18-item scale. The subscale coefficients were .86 for PSE for instruction, .87 for PSE for management, and .83 for PSE for moral leadership. Due to the high reliability and the comprehensive nature of the instrument in measuring three dimensions of PSE, the PSES (Tschannen-Moran & Gareis, 2004) was selected for this study.

Principal Self-Efficacy Scale (PSES). The instrument that was used to measure PSE in this study was the PSES (Tschannen-Moran & Gareis, 2004). In the factor analysis of the 18 items measured on the PSES (Tschannen-Moran & Gareis, 2004), three factors emerged, each of which included six items. The first factor included six items related to PSE for instructional leadership, the second to PSE for management, and the third to PSE for moral leadership.

Permission to use the PSES (Tschannen-Moran & Gareis, 2004) was granted by Dr. Megan Tschannen-Moran, one of the two authors who developed the instrument (see Appendix B). The 18 items on the PSES (Tschannen-Moran & Gareis, 2004) address the self-efficacy beliefs of principals, asking them to rate their self-efficacy levels for a variety of leadership tasks in the areas of instructional leadership, management, and moral leadership. Each item on the PSES (Tschannen-Moran & Gareis, 2004) begins with the phrase, "In your current role as principal, to what extent can you …." Items in the area of instructional leadership conclude this phrase with questions such as "… motivate teachers?" and "… manage change in your schools?" Items in the area of management include questions such as "… handle the time demands of the job?" and "… cope with the stress of the job?" Items in the area of moral leadership include questions such as "… promote acceptable behavior among students?" and "… promote ethical behavior among school personnel?" Data were collected using a Likert 9-point forced-response rating scale, which asked participants to rate their self-efficacy beliefs according to the following scale: 9 = *a great deal*, 7 = *quite a bit*, 5 = *some degree*, 3 = *very little*, or 1 = *none at all*. This part of the survey included 18 questions and took approximately five minutes to complete.

Demographic Survey

The third part of the survey asked participants for demographic information, including several personal and school characteristics. This portion of the instrument was piloted by several

former New Jersey principals to assess the clarity of the questions. Any questions that were found to be confusing or ambiguous were revised. The items related to personal characteristics asked for the respondent's gender, age, ethnicity, race, highest degree earned, years of principal experience, and years in current position. The items related to school characteristics asked for the grade span of the school, school size (enrollment), school neighborhood (rural, urban, or suburban), and percentage of students on free or reduced-price lunch. This part of the survey was used to collect data on the participants in order to identify any association between principals' job satisfaction levels and their personal characteristics (i.e. age, gender, years of experience, etc.) or the characteristics of their schools (i.e. school size, school neighborhood, etc.). The demographic section took less than five minutes to complete.

Data Analysis

This research study sought to describe the relationship between self-efficacy and principal job satisfaction. Descriptive statistical analyses and various statistical tests (i.e., correlation, multiple regression, etc.) were used to analyze the data. The IBM Statistical Program for the Social Sciences (SPSS) software (Version 25; IBM Corp., 2017) was used to conduct the data analyses. The next chapter presents the study's findings.

Summary

This chapter outlined the methodology used in this study, which sought to describe the relationship between self-efficacy and job satisfaction for public school principals in New Jersey. An online survey was completed by a sample of public school principals who served as principals in the state of New Jersey during the 2017–2018 school year. The quantitative data were analyzed through the IBM SPSS Statistics 25 data analysis program (Version 25; IBM Corp., 2017).

CHAPTER 4: Results

There has been little research on the relationship between dispositional factors and principal job satisfaction. The purpose of this study was to determine whether the dispositional factor of self-efficacy significantly contributes to job satisfaction among principals in New Jersey, when controlling for demographic characteristics. The following research questions were pursued:

Research Question 1: What are the levels of self-efficacy and job satisfaction among currently employed public school principals in the state of New Jersey?

Research Question 2: What is the nature of the relationship between PSE and job satisfaction when controlling for demographic characteristics?

Research Question 3: To what extent does PSE mediate the impact of demographic characteristics on job satisfaction?

Research Question 4: Which of the dimensions of PSE (management, instructional leadership, or moral leadership) has the strongest association with job satisfaction?

This chapter details the data collection methods used for the study and a descriptive analysis of the sample, followed by the answers to the research questions using the statistical analysis results. These results describe the nature of the relationship between PSE and job satisfaction, when controlling for demographic characteristics, and an analysis of how PSE mediates the relationship between demographic variables and job satisfaction. The chapter concludes with a brief summary of the study findings.

Data Collection

The data for this study were collected from a survey (see Appendix A) sent to all school principals in the state of New Jersey. I obtained the list of names and email addresses for public school principals in New Jersey from the state education department's website, https://homeroom5.doe.state.nj.us/directory/. The survey included three instruments: the 20-item Minnesota Satisfaction Questionnaire Short-Form (MSQ) (Weiss et al., 1967), the 18-item Principal Self-Efficacy Scale (PSES) (Tschannen-Moran & Gareis, 2004), and a demographic survey.

A total of 2,526 school principals were solicited via email to participate in this study. The survey was open for 14 weeks, during which time three reminder emails were sent. A total of 823 school principals responded to the survey. Data from one respondent who did not meet the inclusion criteria for the study were excluded from the data analysis. The resulting sample size of 822 respondents, 32.54% of the sampling frame or response rate, exceeded the targeted percentage response rate as discussed in Chapter 3 (30% or 758 respondents). An a priori power analysis using G*Power software (Version 3.1; Faul, Erdfelder, Buchner, & Lang, 2009) confirmed the adequacy of the sample size for this study. The following section provides a descriptive analysis of the sample.

Descriptive Analysis of the Sample

The following are the descriptive statistics for the demographic information collected from survey participants, organized into two categories: personal characteristics and school characteristics. Personal characteristics included gender of the respondents, age, ethnicity, race, highest degree earned, years of experience as a principal, and years in current position. School

characteristics included grade span of the respondents' school, school size, school neighborhood or setting, and percentage of students eligible for free or reduced-price lunch.

Personal Characteristics

Table 3 summarizes the personal characteristics of survey respondents, including gender, age, ethnicity, race, highest degree earned, number of years as a principal, and number of years in their current position. The sample contained slightly more male respondents (55.4%), than female (44.6%). The largest age group responding to the survey were principals between the ages of 45 and 54 years, who constituted 42.4% of respondents. The ethnicity of the majority of survey respondents was "Not Hispanic/Spanish/Latino" (93.7%), and the race of most respondents was White (86.9%). The highest degree earned by the majority of respondents was a master's degree (67.2%). Nearly 60% of the sample had less than 10 years of experience as a principal, and 75% had been in their current position for less than 10 years.

Table 3

Personal Characteristics of Principals (N = 822)

Personal characteristic	Frequency	Percent
Gender		
Male	455	55.4%
Female	367	44.6%
Age		
25 - 34 years old	10	1.2%
35 - 44 years old	259	31.5%
45 - 54 years old	349	42.4%
55 - 64 years old	157	19.1%
65 - 74 years old	47	5.7%

Continued on next page

Table 3 (continued)

Personal characteristic	Frequency	Percent
Ethnicity		
Not Hispanic/Spanish/Latino	770	93.7%
Hispanic/Spanish/Latino	52	6.3%
Race		
American Indian or Alaska native	3	0.37%
Asian	4	0.49%
Black or African American	82	9.96%
Native Hawaiian or other Pacific Islander	3	0.36%
White	714	86.88%
Multiple categories reported	16	1.94%
Highest degree earned		
Master's degree	552	67.2%
Ph.D., Ed.D. or other advanced degree	270	32.8%
Years as a principal		
Less than 10 years		
Less than a year	35	4.3%
1 - 3 years	113	13.7%
4 - 6 years	186	22.6%
7 - 9 years	150	18.2%
10 years or more	338	41.1%
Years in current position		
Less than 10 years		
Less than a year	56	6.8%
1 - 3 years	187	22.7%
4 - 6 years	236	28.7%
7 - 9 years	137	16.7%
10 years or more	206	25.1%

Note. Respondents who selected more than one race category are included only in the row labeled "Multiple categories reported."

School Characteristics

Table 4 summarizes the school characteristics of the survey respondents, including grade span of the respondents' schools, school size, school neighborhood, and percentage of students eligible for free or reduced-price lunch. The survey indicated that the majority of the respondents (74.8%) were elementary principals. For purposes of this study, any school that included at least one secondary grade level—grade 9, 10, 11, 12, or beyond grade 12—was considered a secondary school, and all other schools were considered elementary. Just over half of principal respondents (53%) worked in a school with less than 500 students. The majority of the sample (77.8%) worked in schools situated in a suburban or rural neighborhood, and 73% worked in schools where less than half of students were eligible for free or reduced-price lunch.

Table 4

School Characteristics of Principals (N = 822)

School characteristic	Frequency	Percent
Grade span		
Elementary	615	74.8%
Secondary	207	25.2%
School size		
Less than 500 students		
Under 100 students	20	2.4%
100 - 199 students	40	4.9%
200 - 299 students	98	11.9%
300 - 399 students	149	18.1%
400 - 499 students	129	15.7%
500 students or more	386	47.0%

Continued on next page

Table 4 (continued)

School characteristic	Frequency	Percent
School setting		
Suburban		
Suburban	553	67.3%
Rural	86	10.5%
Urban	183	22.3%
Percentage of students on free or reduced-price lunch		
Less than 50%		
0 – 24%	418	50.9%
25 – 49%	182	22.1%
50% or more	222	27.0%

Research Findings

Research Question 1 - Analysis and Results

The first research question pursued was this: What are the levels of self-efficacy and job satisfaction among currently employed public school principals in the state of New Jersey?

Research Question 1a: Levels of self-efficacy. The PSES (Tschannen-Moran & Gareis, 2004), consists of 18 items scored on a 1–9 scale; the total Principal Self-Efficacy (PSE) score is the average score of these 18 items. The PSES is designed to produce three sub-scores in addition to the total PSE score—one for each of three dimensions of PSE: PSE for instructional leadership, PSE for management, and PSE for moral leadership.

I tested the PSES for reliability, and it demonstrated high internal consistency with a Cronbach's alpha coefficient of .913, matching the .91 coefficient found for the same instrument in a previous study (Tschannen-Moran & Gareis, 2005). The Cronbach's alpha coefficients I

found for the three dimensions of the PSES for this study were as follows: .863 for PSE for instructional leadership, .840 for PSE for management, .and .803 for PSE for moral leadership. These coefficients aligned well with the reliability coefficients for the three dimensions obtained in the study by Tschannen-Moran and Gareis (2005), which were .86, .87, and .83 respectively.

The range of mean scores for the PSES items was 5.87 to 7.53 on a 1–9 point scale. The total PSE score for each respondent was the average of his or her responses to all 18 items of the PSES. The total PSE score mean for this sample was 6.72 (*SD* = 0.97), which falls closest to the point on the instrument's Likert scale for *quite a bit*. Bandura (1994) described self-efficacy as the belief in one's own ability to perform a given task. The relatively high self-efficacy scores of the respondents indicate that, in general, the principals believed in their own abilities to carry out the demands of the principalship. Table 5 provides the means and standard deviations for the PSES.

Table 5

Descriptive Statistics for the Dimensions of Principal Self-Efficacy (PSE) N = 715

PSE dimension	Mean	Median	SD
Total PSE score	6.72	6.72	.97
PSE for instructional leadership	6.83	6.83	1.10
PSE for management	6.23	6.33	1.26
PSE for moral leadership	7.11	7.17	1.01

Note. SD = Standard deviation. Item scores range from 1 = *none at all* to 9 = *a great deal*.

I determined the score for the instructional leadership dimension of PSE by examining the six items identified as related to PSE for instructional leadership. The mean for PSE for instructional leadership was 6.83 (*SD* = 1.10), which indicates that the principals' sense of self-efficacy in the area of instructional leadership came closest to *quite a bit* on average. In other

words, the principals tended to believe in their own abilities to lead in the areas of teaching and learning. The mean scores for these six items ranged from 5.87 to 7.53 on a 1–9 point scale. The highest mean score, 7.53 (*SD* = 1.27), came from item 6: "To what extent can you create a positive learning environment in your school?" The lowest mean score, 5.87 (*SD* = 1.47), came from item 7, which asked "to what extent can you raise student achievement on standardized tests?"

I determined the score for the management dimension of PSE by examining the six items identified as related to PSE for management. The mean score for PSE for management was 6.23 (*SD* = 1.26), which indicates that the principals' self-efficacy in the area of management, although fairly high, was slightly lower than their self-efficacy in the area of instructional leadership. The mean scores for these six items ranged from 5.93 to 6.49 on a 1–9 point scale. The highest average score, 6.49 (*SD* = 1.53), in PSE for management was for item 18, which asked "to what extent can you prioritize the competing demands of the job?" The lowest average score, 5.93 (*SD* = 1.83) came from item 12: "To what extent can you shape the operational policies and procedures that are necessary to manage your school?"

I determined the score for the moral leadership dimension of PSE by examining the six items identified as related to PSE for moral leadership. The mean score for PSE for moral leadership, 7.11 (*SD* = 1.01), was the highest out of all three dimensions of PSE and fell between *quite a bit* and *a great deal* on the Likert scale. This result indicates that the principals had a strong sense of their own abilities and capacity to exert influence in the area of moral leadership. The mean scores for these six items ranged from 6.53 to 7.48 on a 1–9 point scale. The highest average score, 7.48 (*SD* = 1.29) in PSE for moral leadership was for item 13: "To what extent can you handle effectively the discipline of students in your school?" The lowest average score,

6.53 (*SD* = 1.47), was for item 10: "To what extent can you promote the prevailing values of the community in your school?" Table 6 summarizes the descriptive statistics for each item of the PSES, and Table 7 shows the percentage frequencies.

Table 6

Descriptive Statistics for Each Principal Self-Efficacy Scale (PSES) Item (N = 715)

Principal Self-Efficacy (PSE)	Mean	Median	SD
PSE for Instructional Leadership			
Facilitate student learning in your school	6.87	7.00	1.47
Generate enthusiasm for a shared vision for the school	7.17	7.00	1.46
Manage change in your school	6.77	7.00	1.52
Create a positive learning environment in your school	7.53	7.00	1.27
Raise student achievement on standardized tests	5.87	6.00	1.47
Motivate teachers	6.77	7.00	1.33
PSE for Management			
Handle the time demands of the job	6.38	7.00	1.68
Maintain control of your own daily schedule	5.96	6.00	1.78
Shape the operational policies and procedures that are necessary to manage your school	5.93	6.00	1.83
Handle the paperwork required of the job	6.36	7.00	1.68
Cope with the stress of the job	6.25	7.00	1.64
Prioritize among competing demands of the job	6.49	7.00	1.53

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Table 6 (continued)

Principal Self-Efficacy (PSE)	Mean	Median	*SD*
PSE for Moral Leadership			
Promote school spirit among the large majority of the student population	7.34	7.00	1.48
Promote a positive image of your school with the media	6.89	7.00	1.60
Promote the prevailing values of the community in your school	6.53	7.00	1.47
Handle effectively the discipline of students in your school	7.48	7.00	1.29
Promote acceptable behavior among students	7.44	7.00	1.23
Promote ethical behavior among school personnel	6.96	7.00	1.46

Note. SD = Standard deviation. Item scores range from 1 = *none at all* to 9 = *a great deal*.

Table 7

Percentage Frequencies for Each Principal Self-Efficacy Scale (PSES) Item (N = 715)

#	Item	A Great deal 9	8	Quite a bit 7	6	Some degree 5	4	Very little 3	2	None at all 1
PSE for instructional leadership										
1	Facilitate student learning in your school	127 17.8%	96 13.4%	239 33.4%	107 15.0%	116 16.2%	13 1.8%	17 2.4%	- -	- -
2	Generate enthusiasm for a shared vision for the school	164 22.9%	119 16.6%	255 35.7%	72 10.1%	77 10.8%	12 1.7%	14 2.0%	1 0.1%	1 0.1%
4	Manage change in your school	101 14.1%	97 13.6%	282 39.4%	83 11.6%	109 15.2%	12 1.7%	28 3.9%	- -	3 0.4%

Continued on next page

Table 7 (continued)

#	Item	A great deal 9	8	Quite a bit 7	6	Some degree 5	4	Very little 3	2	None at all 1
6	Create a positive learning environment in your school	212 29.7%	138 19.3%	250 35.0%	62 8.7%	43 6.0%	6 0.8%	3 0.4%	- -	1 0.1%
7	Raise student achievement on standardized tests	29 4.1%	55 7.7%	162 22.7%	164 22.9%	218 30.5%	43 6.0%	33 4.6%	5 0.7%	6 0.8%
9	Motivate teachers	91 12.7%	80 11.2%	283 39.6%	130 18.2%	106 14.8%	16 2.2%	8 1.1%	1 0.1%	- -
PSE for management										
3	Handle the time demands of the job	78 10.9%	96 11.7%	239 29.1%	107 13.0%	116 14.1%	13 1.6%	17 2.1%	- -	- -
11	Maintain control of your own daily schedule	164 20%	119 14.5%	255 31.0%	72 8.8%	77 9.4%	12 1.5%	14 1.7%	1 0.1%	1 0.1%
12	Shape the operational policies and procedures that are necessary to manage your school	101 12.3%	97 11.8%	282 34.3%	83 10.1%	109 13.3%	12 1.5%	28 3.4%	- -	3 0.4%
15	Handle the paperwork required of the job	212 25.8%	138 16.8%	250 30.4%	62 7.5%	43 5.2%	6 0.7%	3 0.4%	- -	1 0.1%

Continued on next page

Table 7 (continued)

#	Item	A great deal 9	8	Quite a bit 7	6	Some degree 5	4	Very little 3	2	None at all 1
17	Cope with the stress of the job	29 3.5%	55 6.7%	162 19.7%	164 20.0%	218 26.5%	43 5.2%	33 4.0%	5 0.6%	6 0.7%
18	Prioritize among competing demands of the job	91 11.1%	80 9.7%	283 34.4%	130 15.8%	106 12.9%	16 1.9%	8 1.0%	1 0.1%	- -
PSE for moral leadership										
5	Promote school spirit among the large majority of the student population	218 30.5%	100 14.0%	231 32.3%	71 9.9%	74 10.3%	10 1.4%	9 1.3%	1 0.1%	1 0.1%
8	Promote a positive image of your school with the media	140 19.6%	102 14.3%	236 33.0%	98 13.7%	98 13.7%	12 1.7%	22 3.1%	2 0.3%	5 0.7%
10	Promote the prevailing values of the community in your school	76 10.6%	74 10.3%	260 36.4%	123 17.2%	142 19.9%	17 2.4%	16 2.2%	2 0.3%	5 0.7%
13	Handle effectively the discipline of students in your school	206 28.8%	129 18.0%	259 36.2%	57 8.0%	54 7.6%	7 1.0%	2 0.3%	1 0.1%	- -
14	Promote acceptable behavior among students	197 27.6%	112 15.7%	271 37.9%	86 12.0%	43 6.0%	5 0.7%	1 0.1%	- -	- -
16	Promote ethical behavior among school personnel	119 16.6%	124 17.3%	261 36.5%	85 11.9%	96 13.4%	17 2.4%	7 1.0%	3 0.4%	3 0.4%

To identify which demographic characteristics were significantly related to PSE for this sample, simultaneous multiple regression was conducted, with all personal and school characteristics entered simultaneously as predictor variables, and PSE entered as the outcome variable. The regression model explained 6.1% of the variance in the outcome variable (Total PSE: Avg 1–18) with a standard error of .95 and was found to be statistically significant, F (15, 699) = 3.022, $p < .001$). The beta coefficients are presented in Table 8. Gender, age, race, ethnicity, highest degree earned, and years of experience were not significantly related to PSE, nor were school size and percentage of students on free or reduced-price lunch. Number of years in current position was significantly related to PSE (β = .111, t = 2.217, p = .027), as were grade span (β = -.132, t = -3.247, p = .001) and school setting (β = -.119, t = -2.370, p = .018). These results show that principals who had served in their current position for 10 or more years reported greater self-efficacy than those who had served in their current position for less than 10 years. In addition, elementary principals reported higher self-efficacy than secondary principals, and principals of urban schools reported higher levels of self-efficacy than principals of suburban schools.

In summary, analysis of the data revealed positive relationships between number of years in current position and PSE, elementary grade span and PSE, and urban school setting and PSE. The principals in this sample reported a higher sense of self-efficacy for moral leadership than for instructional leadership and management. Management was the area where principals reported the lowest sense of self-efficacy; however, on the whole, the PSES revealed that principals had a strong sense of self-efficacy in their current positions. These results suggest that the principals possessed strong beliefs in their own abilities to carry out the demands of the principalship.

Table 8

Simultaneous Multiple Regression Analysis for Demographic Characteristics Related to Principal Self-Efficacy (N = 715)

Variable	*B*	*SE B*	β	*t*	*p*
Gender	.065	.074	.033	.876	.381
Age	-.054	.044	-.049	-1.205	.229
Hispanic/Spanish/Latino	-.093	.155	-.023	-.600	.548
American Indian/Alaska native	-.748	.563	-.050	-1.329	.184
Asian	-.925	.477	-.071	-1.937	.053
Black or African American	-.006	.125	-.002	-.045	.964
Native Hawaiian/Pacific Islander	.473	.558	.032	.848	.397
Multiple races	-.102	.260	-.015	-.391	.696
Highest degree earned (0 = MA, 1 = degree beyond MA)	.079	.076	.039	1.036	.301
Years as principal (0 = <10yrs, 1 = 10+yrs)	.094	.100	.048	.938	.349
Years current position (0= <10yrs, 1 = 10+yrs)	.244	.110	.111	2.217	.027
Grade span (0 = elementary, 1 = secondary)	-.293	.090	-.132	-3.247	.001
Student enrollment (0 = <500, 1 = 500+)	-.052	.078	-.027	-.667	.505
School neighborhood (0 = urban, 1 = suburban)	-.273	.115	-.119	-2.370	.018
Percentage of students on free or reduced lunch (0 = <50%, 1 = 50+%)	-.178	.108	-.082	-1.657	.098

Note. $R^2 = .06$; $F(15, 699) = 3.022$, $p<.001$.

Research Question 1b: Levels of job satisfaction. The levels of job satisfaction of the participating New Jersey public school principals were measured using the 20-item MSQ (Weiss

et al., 1967). The mean of the responses to all 20 items on the MSQ provided the general satisfaction score. The MSQ also produces scores for two subscales: intrinsic satisfaction and extrinsic satisfaction. I tested the MSQ for reliability for this sample and found the Cronbach's alpha of internal consistency with all 20 items in the analysis was .914, falling at the high end of the range of 0.87–0.92 reported in the scoring manual (Weiss et al., 1967). Both of the subscales also had high reliability, with a coefficient of .866 for the 12-item intrinsic satisfaction subscale and .834 for the 6-item subscale for extrinsic satisfaction. The coefficients reported in the scoring manual ranged from .84 to .91 for the intrinsic satisfaction scale, with a median coefficient of .86, and from .77 to .82 for the extrinsic satisfaction scale, with a median of .80.

The mean of general satisfaction scores for this sample was 3.83 (*SD* = 0.61), on a 1–5 point scale. This mean indicates that the principal participants were generally satisfied with their jobs. The descriptive statistics for the MSQ are summarized in Table 9.

Table 9

Descriptive Statistics for Minnesota Satisfaction Questionnaire Short-Form (MSQ) General Satisfaction and Subscales (N = 746)

Job Satisfaction	Mean	Median	SD
General Satisfaction	3.83	3.90	.61
Intrinsic Satisfaction	4.01	4.08	.58
Extrinsic Satisfaction	3.47	3.67	.84

Note. SD = Standard deviation. Item scores range from 1 = *very dissatisfied* to 5 = *very satisfied*.

Responses to the 12 items on the MSQ related to intrinsic factors of satisfaction produced the intrinsic job satisfaction score. The range of mean scores was 3.51 to 4.49 on a 1–5 point scale. The mean of the intrinsic satisfaction scores was 4.01 (*SD* = 0.58), which indicates that the principals were satisfied with the intrinsic factors of their jobs—that is, the way their abilities are utilized, the authority and social service aspects of the job, and their sense of creativity and

achievement. The highest average score in intrinsic satisfaction, 4.49 (*SD* = 0.68) was related to the social service aspect of the job, that is, "the chance to do things for other people." The lowest average score, 3.51 (*SD* = 0.96) was related to independence, that is, "the chance to work alone on the job."

Responses to the six items on the MSQ related to extrinsic factors of satisfaction produced the extrinsic job satisfaction score. The range of mean scores was 3.36 to 3.62 on a 1–5 point scale. The mean of extrinsic satisfaction scores was 3.47 (SD = 0.84), indicating that the principals' extrinsic satisfaction level fell between *neither satisfied nor dissatisfied* and *satisfied*. In other words, the principals' satisfaction waned in the areas of the pay, recognition, and supervision afforded by the job. The extrinsic satisfaction item that asked respondents to rate how they feel about "the way company policies are put into practice" resulted in the lowest mean score out of all MSQ items: 3.36 (*SD* = 1.05).

The two items that are not included in either the intrinsic or extrinsic subscales of the MSQ are "the working conditions" and "the way my co-workers get along with each other." The mean score for "the working conditions" was 3.88 (*SD* = 1.03), and the mean score for "the way my co-workers get along with each other" was 3.79 (*SD* = 0.96), indicating that the principals' satisfaction in these two areas was lower than the satisfaction they experienced from the intrinsic aspects of the job, and was slightly higher than their extrinsic satisfaction. Table 10 summarizes the descriptive statistics for each of the items on the MSQ, and Table 11 lists the percentage frequencies.

Table 10

Descriptive Statistics for Each Minnesota Satisfaction Questionnaire Short-Form (MSQ) Item (N = 746)

Item #	Facet	MSQ survey item	Mean	Median	*SD*
Intrinsic satisfaction					
1	Activity	Being able to keep busy all the time	4.21	4.00	0.89
2	Independence	The chance to work alone on the job	3.51	4.00	0.96
3	Variety	The chance to do different things from time to time	3.91	4.00	1.02
4	Social status	The chance to be “somebody” in the community	4.09	4.00	0.85
7	Moral values	Being able to do things that don't go against my conscience	3.94	4.00	1.02
8	Security	The way my job provides for steady employment	4.42	5.00	0.78
9	Social service	The chance to do things for other people	4.49	5.00	0.68
10	Authority	The chance to tell people what to do	3.57	3.00	0.74
11	Ability utilization	The chance to do something that makes use of my abilities	4.15	4.00	0.93
15	Responsibility	The freedom to use my own judgement	3.89	4.00	1.03
16	Creativity	The chance to try my own methods of doing the job	3.87	4.00	1.00
20	Achievement	The feeling of accomplishment I get from the job	4.01	4.00	0.91
Extrinsic satisfaction					
5	Supervision--human relations	The way my boss handles his/her workers	3.48	4.00	1.27
6	Supervision--technical	The competence of my supervisor in making decisions	3.62	4.00	1.21

Continued on next page

Table 10 (continued)

Item #	Facet	MSQ survey item	Mean	Median	*SD*
12	Company policies	The way company policies are put into practice	3.36	4.00	1.05
13	Compensation	My pay and the amount of work I do	3.52	4.00	1.18
14	Advancement	The chances for advancement on this job	3.44	4.00	0.96
19	Recognition	The praise I get for doing a good job	3.38	4.00	1.10
Other satisfaction					
17	Working conditions	The working conditions	3.88	4.00	1.03
18	Co-workers	The way my co-workers get along with each other	3.79	4.00	0.96

Note. SD = Standard deviation.

Table 11

Percentage Frequencies for Each Minnesota Satisfaction Questionnaire Short-Form (MSQ) Item (N = 746)

Item #	Facet	MSQ survey item	5 Very satisfied	4 Satisfied	3 Neither dis-satisfied nor satisfied	2 Dis-satisfied	1 Very dis-satisfied
Intrinsic Satisfaction							
1	Activity	Being able to keep busy all the time	323 43.3%	309 41.4%	78 10.5%	20 2.7%	16 2.1%
2	Independence	The chance to work alone on the job	96 12.9%	318 42.6%	225 30.2%	85 11.4%	22 2.9%
3	Variety	The chance to do different things from time to time	222 29.8%	353 47.3%	75 9.1%	77 9.4%	19 2.3%

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Table 11 (continued)

Item #	Facet	MSQ survey item	5 Very satisfied	4 Satisfied	3 Neither dis-satisfied nor satisfied	2 Dis-satisfied	1 Very dis-satisfied
4	Social status	The chance to be "somebody" in the community	258 34.6%	336 45.0%	118 15.8%	28 3.8%	6 0.8%
7	Moral values	Being able to do things that don't go against my conscience	242 32.4%	324 43.4&	97 13.0%	61 8.2%	22 2.9%
8	Security	The way my job provides for steady employment	408 54.7%	274 36.7%	41 5.5%	14 1.9%	9 1.2%
9	Social service	The chance to do things for other people	422 56.6%	283 37.9%	27 3.6%	11 1.5%	3 0.4%
10	Authority	The chance to tell people what to do	84 11.3%	282 37.8%	357 47.9%	21 2.8%	2 0.3%
11	Ability utilization	The chance to do something that makes use of my abilities	303 40.6%	331 44.4%	45 6.0%	57 7.6%	10 1.3%
15	Responsibility	The freedom to use my own judgement	212 28.4%	364 48.8%	69 9.2%	78 10.5%	23 3.1%
16	Creativity	The chance to try my own methods of doing the job	199 26.7%	369 49.5%	82 11.0%	77 10.3%	19 2.5%
20	Achievement	The feeling of accomplishment I get from the job	224 30.0%	383 51.3%	78 10.5%	46 6.2%	15 2.0%
Extrinsic satisfaction							
5	Supervision-human relations	The way my boss handles his/her workers	175 23.5%	269 36.1%	111 14.9%	120 16.1%	71 9.5%
6	Supervision-technical	The competence of my supervisor in making decisions	201 26.9%	266 35.7%	128 17.2%	99 13.3%	52 7.0%

Continued on next page

Table 11 (continued)

12	Company policies	The way company policies are put into practice	78 10.5%	319 42.8%	177 23.7%	136 18.2%	36 4.8%
13	Compensation	My pay and the amount of work I do	149 20.0%	316 42.4%	99 13.3%	137 18.4%	45 6.0%
14	Advancement	The chances for advancement on this job	85 11.4%	295 39.5%	258 34.6%	78 10.5%	30 4.0%
19	Recognition	The praise I get for doing a good job	92 12.3%	312 41.8%	184 24.7%	103 13.8%	55 7.4%
Other satisfaction							
17	Working conditions	The working conditions	211 28.3%	359 48.1%	76 10.2%	76 10.2%	24 3.2%
18	Co-workers	The way my co-workers get along with each other	154 20.6%	398 53.4%	92 12.3%	90 12.1%	12 1.6%

To identify which demographic characteristics were significantly related to job satisfaction for this sample, I conducted simultaneous multiple regression, with all personal and school characteristics entered simultaneously as predictor variables, and job satisfaction entered as the outcome variable. The regression model explained 5.3% of the variance in the outcome variable (general job satisfaction) with a standard error of .60 and was found to be statistically significant, $F(15, 730) = 2.732$, $p < .001$). The beta coefficients are presented in Table 12. The two personal characteristics that were significantly related to job satisfaction were Black or African American ($\beta = -.112$, $t = -2.970$, $p = .003$) and multiple races ($\beta = -.083$, $t = -2.243$, $p = .025$), with white principals reporting greater job satisfaction than black or multiracial principals. The personal characteristics of gender, age, ethnicity, highest degree earned, years of principal experience, and years in current position were not significantly related to job satisfaction for this sample. The only school characteristic that was significantly related to job satisfaction was grade

span (β = -.098, t = -2.456, p = .014), with elementary principals reporting greater job satisfaction than secondary principals. School size, school setting, and percentage of students on free or reduced-price lunch were not found to be significantly related to job satisfaction.

Table 12

Simultaneous Multiple Regression Analysis for Demographic Characteristics Related to Job Satisfaction (N = 746)

Variable	*B*	*SE B*	β	*t*	*p*
Gender	.062	.046	.051	1.356	.176
Age	.031	.028	.045	1.124	.261
Hispanic/Spanish/Latino	-.054	.096	-.021	-0.563	.573
American Indian/Alaska native	.124	.356	.013	0.348	.728
Asian	-.277	.303	-.033	-0.915	.361
Black or African American	-.229	.077	-.112	-2.970	.003
Native Hawaiian/Pacific Islander	.374	.354	.039	1.057	.291
Multiple races	-.360	.160	-.083	-2.243	.025
Highest degree earned (0 = MA, 1 = beyond MA)	.050	.047	.039	1.062	.289
Years as principal (0 = <10yrs, 1 = 10+yrs)	.024	.061	.019	0.383	.701
Years current position (0 = <10yrs, 1 = 10+yrs)	.085	.068	.061	1.255	.210
Grade span (0 = elementary, 1 = secondary)	-.137	.056	-.098	-2.456	.014
School size (0 = <500, 1 = 500+)	.011	.048	.009	0.232	.817
School setting (0 = urban, 1 = suburban)	-.017	.072	-.012	-0.239	.811
Percentage of students on free or reduced-price	-.079	.067	-.058	-1.178	.239

Note. R^2 = .05; $F(15, 730) = 2.732$, $p < .001$.

Overall, the MSQ results showed that the school principals were generally satisfied with their jobs, and that race is related to job satisfaction, with white principals reporting higher job satisfaction than black or multiracial principals. In addition, the results revealed that greater job satisfaction is reported by elementary principals in the sample than secondary principals. The principals in this sample reported higher intrinsic satisfaction than extrinsic satisfaction, indicating that they were more satisfied with the work itself than with the external rewards.

Research Question 2 - Analysis and Results

The second research question was, "What is the nature of the relationship between PSE and job satisfaction when controlling for demographic characteristics?"

To investigate the nature of the relationship between PSE and job satisfaction, a hierarchical linear regression was computed. The control variables for this regression were Black or African American, grade span, and multiple races. These three variables had emerged as significant predictors of job satisfaction in the prior regression analysis where all demographic characteristics were entered simultaneously as predictors of principal job satisfaction. The predictor variables were added to the hierarchical linear regression in order from weakest to strongest, based on the betas from the prior regression analysis (see Table 12), to better determine whether the variable of interest contributed significantly to the explained variance in the outcome variable, job satisfaction.

Table 13 presents the model summary of the hierarchical regression analysis, and Table 14 provides the ANOVA table. Multiple races, the weakest predictor in the multiple regression, was entered alone in Model 1. Grade span was added as a predictor in Model 2, and Black or African American was added as a third predictor in Model 3. PSE, the variable of interest, was added in Model 4.

Table 13

Model Summary Predicting Job Satisfaction from Principal Self-Efficacy, When Controlling for Demographic Characteristics (N = 715)

					Change Statistics					
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	R Square Change	F Change	df1	df2	Sig. F Change	Durbin-Watson
1	.070[a]	.005	.004	.59754	.005	3.528	1	713	.061	
2	.115[b]	.013	.010	.59547	.008	5.950	1	712	.015	
3	.172[c]	.030	.026	.59088	.017	12.120	1	711	.001	
4	.650[d]	.422	.419	.45627	.393	482.376	1	710	.000	1.890

Note: Dependent variable: Average general job satisfaction.
a. Predictors: (Constant), multiple races
b. Predictors: (Constant), multiple races, grade span (0=elementary 1=secondary)
c. Predictors: (Constant), multiple races, grade span (0=elementary 1=secondary), Black or African American
d. Predictors: (Constant), multiple races, grade span (0=elementary 1=secondary), Black or African American, total principal self-efficacy: Avg 1-18

Table 14

ANOVA Predicting Job Satisfaction from Principal Self-Efficacy, When Controlling for Demographic Characteristics (N = 715)

ANOVA[a]

Model		Sum of squares	df	Mean square	*F*	Sig.
1	Regression	1.260	1	1.260	3.528	.061[b]
	Residual	254.576	713	.357		
	Total	255.836	714			
2	Regression	3.370	2	1.685	4.751	.009[c]
	Residual	252.466	712	.355		
	Total	255.836	714			
3	Regression	7.601	3	2.534	7.257	.000[d]
	Residual	248.234	711	.349		
	Total	255.836	714			
4	Regression	108.025	4	27.006	129.72	.000[e]
	Residual	147.811	710	.208		
	Total	255.836	714			

Note: a. Dependent variable: Average general job satisfaction.
b. Predictors: (Constant), multiple races
c. Predictors: (Constant), multiple races, grade span (0=elementary 1=secondary)
d. Predictors: (Constant), multiple races, grade span (0=elementary 1=secondary), Black or African American
e. Predictors: (Constant), multiple races, grade span (0=elementary 1=secondary), Black or African American, total principal self-efficacy: Avg 1-18

When multiple races was entered alone, it did not significantly predict job satisfaction, $p = .061$. When grade span was added to the model, the combination of the two variables significantly predicted job satisfaction, $F(1, 712) = 5.950$, $p = .015$, and multiple races became a significant predictor. When Black or African American was added as a variable, it significantly improved the prediction, R^2 change = .017, $F(1, 711) = 12.120$, $p = .001$, and grade span and multiple races remained significant predictors. When the variable of interest, PSE, was added, it significantly improved the prediction, R^2 change = .393, $F(1,710) = 482.376$, $p < .001$, and multiple races and Black or African American remained significant predictors, whereas grade span did not. The entire group of variables significantly predicted job satisfaction $F(4, 710) = 129.722$, $p < .001$, $R^2 = .422$, adjusted $R^2 = .419$. The beta weights and significance values presented in Table 15 indicate which variables contributed most to predicting job satisfaction, when Black or African-American, grade span, multiple races, and PSE were entered as predictors. With this combination of predictors, PSE was a significant predictor of job satisfaction, had the highest beta ($\beta = .633$, $t = 21.963$, $p < .001$), and accounted for 40.4% of the explained variance of the model. Black or African American ($\beta = -.134$, $t = -4.683$, $p < .001$) and multiple races ($\beta = -.069$, $t = -2.398$, $p = .017$) were also significant predictors, accounting for 3.0% and 0.8% of the explained variance of the model, respectively. Table 15 is the coefficients table for the regression analysis.

Table 15

Coefficients Table for Hierarchical Multiple Regression Analysis Predicting Job Satisfaction from Principal Self-Efficacy (PSE), When Controlling for Demographic Characteristics (N = 715)

Coefficients[a]

		Unstandardized coefficients		Standardized coefficients			Correlations			Collinearity statistics	
	Model	B	Std. Error	Beta	t	Sig.	Zero-order	Partial	Part	Tolerance	VIF
1	(Constant)	3.842	.023		170.246	.000					
	multiple races	-0.303	.161	-.070	-1.878	.061	-.070	-.070	-.070	1.000	1.000
2	(Constant)	3.874	.026		148.515	.000					
	multiple races	-0.335	.161	-.078	-2.078	.038	-.070	-.078	-.077	.993	1.007
	grade span 0=elementary 1=secondary	-0.126	.051	-.091	-2.439	.015	-.085	-.091	-.091	.993	1.007
3	(Constant)	3.901	.027		144.627	.000					
	multiple races	-0.362	.160	-.084	-2.257	.024	-.070	-.084	-.083	.991	1.009
	grade span 0=elementary 1=secondary	-0.127	.051	-.092	-2.495	.013	-.085	-.093	-.092	.993	1.007
	black or African American	-0.259	.074	-.129	-3.481	.001	-.124	-.129	-.129	.998	1.002
4	(Constant)	1.229	.123		9.956	.000					
	multiple races	-0.297	.124	-.069	-2.400	.017	-.070	-.090	-.068	.991	1.010
	grade span 0=elementary 1=secondary	0.001	.040	.001	.022	.982	-.085	.001	.001	.972	1.029
	black or African American	-0.269	.057	-.134	-4.686	.000	-.124	-.173	-.134	.998	1.002
	Total PSE: Avg 1-18	0.393	.018	.633	21.963	.000	.633	.636	.627	.978	1.022

Note. a. Dependent variable: Average general job satisfaction.

Research Question 3 - Analysis and Results

The third research question was, "To what extent does PSE mediate the impact of demographic characteristics on job satisfaction?"

To determine if principal self-efficacy mediates the relationship between demographic characteristics and principal job satisfaction, I conducted statistical mediation analysis using the PROCESS macro developed by Hayes (2017). Assumptions of linearity, normally distributed errors, and uncorrelated errors were checked and met. The three characteristics that emerged as significant contributors to principal job satisfaction in the prior regression analysis—grade span, Black or African American, and multiple races—were entered as independent variables in the mediation analysis. PSE was entered as the mediating variable, and job satisfaction as the outcome variable. Figure 2 shows the *b*'s and *p* values for the effects. PSE did significantly partially mediate the relationship between grade span and principal job satisfaction, $b = -2.54$, BCa CI [-3-9469, -1.2737]. Figure 2 shows that the path from grade span to job satisfaction was reduced in absolute size when PSE was introduced as a mediator, but was still different from zero, indicating only a partial mediating effect (Kenny & Bolger, 1998). Therefore, although there was a significant correlation between grade span and job satisfaction, with elementary principals reporting greater job satisfaction than secondary principals, that correlation was reduced when PSE was added as a mediator. Table 16 summarizes these results. PSE did not statistically significantly mediate the relationship between Black or African American and principal job satisfaction, nor did PSE statistically significantly mediate the relationship between multiple races and principal job satisfaction.

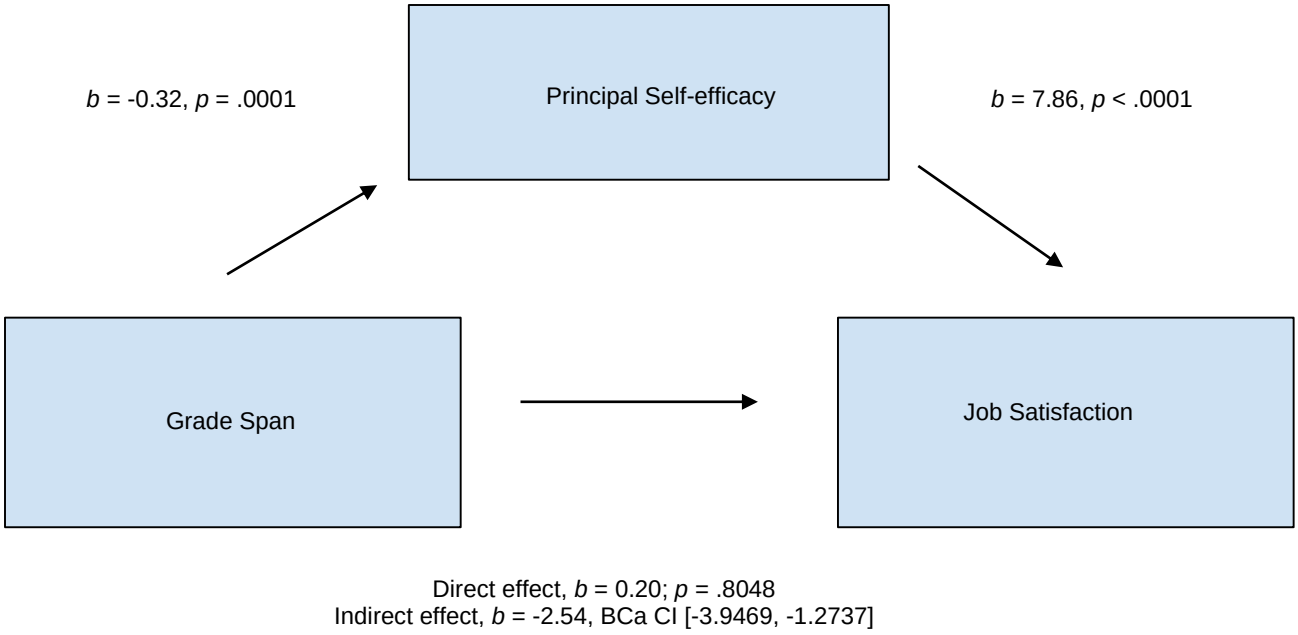

Figure 2. Diagram of the mediation model with regression coefficients, indirect effect and bootstrapped confidence intervals.

Table 16

Regression Analysis Summary for the Independent Variable Grade Span and the Mediator Variable Principal Self-Efficacy (PSE) in the Prediction of Job Satisfaction (N = 715)

OUTCOME VARIABLE: PSE
Model summary

R	*R-sq*	*MSE*	*F*	*df*1	*df*2	*p*
.1451	.0211	0.9137	15.3448	1.0000	713.0000	.0001

Model

	coeff	se	*t*	*p*	LLCI	ULCI
constant	6.8017	0.0413	164.5819	.0000	6.7205	6.8828
Grade Span	-0.3226	0.0824	-3.9172	.0001	-0.4844	-0.1609

OUTCOME VARIABLE: General job satisfaction
Model summary

R	R-sq	MSE	F	df1	df2	p
.6329	.4005	86.1646	237.8299	2.0000	712.0000	.0000

Model

	coeff	se	t	p	LLCI	ULCI
Constant	23.8523	2.5059	9.5184	.0000	18.9324	28.7722
Grade span	0.1998	0.8084	0.2472	.8048	-1.3873	1.7870
Principal self-efficacy	7.8601	0.3637	21.6132	.0000	7.1461	8.5741

Continued on next page

Table 16 (continued)

TOTAL EFFECT MODEL
OUTCOME VARIABLE: General job satisfaction

Model summary

R	*R-sq*	*MSE*	*F*	*df*1	*df*2	*p*
.0848	.0072	142.4953	5.1589	1.0000	713.0000	.0234

Model

	coeff	se	*t*	*p*	LLCI	ULCI
Constant	77.3140	0.5161	149.8079	.0000	76.3008	78.3273
Grade span	-2.3362	1.0286	-2.2713	.0234	-4.3557	-0.3168

TOTAL, DIRECT, AND INDIRECT EFFECTS OF X ON Y

Total effect of X on Y

Effect	se	*t*	*p*	LLCI	ULCI	*c_ps*
-2.3362	1.0286	-2.2713	.0234	-4.3557	-.3168	-.1951

Direct effect of X on Y

Effect	se	*t*	*p*	LLCI	ULCI	*c'_ps*
0.1998	0.8084	.2472	.8048	-1.3873	1.7870	.0167

Indirect effect(s) of X on Y:

	Effect	BootSE	BootLLCI	BootULCI
AVG_PSES	-2.5361	0.6561	-3.9469	-1.2737

Partially standardized indirect effect(s) of X on Y:

	Effect	BootSE	BootLLCI	BootULCI
AVG_PSES	-0.2118	0.0536	-0.3222	-0.1093

Note. Y = Job satisfaction, X = Grade span

Research Question 4 - Analysis and Results

The fourth research question was, "Which of the dimensions of PSE (management, instructional leadership, or moral leadership) has the strongest association with job satisfaction?"

A simultaneous multiple regression model was run to determine which of the three dimensions of PSE—management, instructional leadership, or moral leadership—had the strongest association with job satisfaction. Tables 17, 18, and 19 present the model summary, ANOVA table, and coefficients table, respectively, for the regression analysis. All variables were normally distributed and the reported Durbin Watson statistic was 1.899, indicating that the

residuals were normally distributed and uncorrelated with the predictor variables. This combination of variables significantly predicted job satisfaction, $F(3, 711) = 159.803$, $p < .001$, with all three variables significantly contributing to the prediction. The R^2 value was .403 and the adjusted R^2 value was .400, indicating that 40% of the variance in job satisfaction could be predicted from the three dimensions of PSE combined.

PSE for management was the strongest predictor variable in the model and was statistically significant *(*$t = 7.065$; $p < .001$), explaining 6.6% percent of the overall variance to the model. PSE for instructional leadership was the second strongest predictor variable in the model and was statistically significant ($t = 6.817$, $p < .001$), explaining 6.2% percent of the overall variance to the model. PSE for moral leadership was the third strongest predictor variable in the model and was statistically significant ($t = 3.779$, $p < .001$), explaining 2.0% percent of the overall variance to the model. The reported collinearity statistics for the model indicated no observable multicollinearity issues among the predictor variables. This model showed that the management dimension of PSE had the strongest association with job satisfaction. These results suggest that principals who had strong beliefs in their own capabilities regarding the management aspects of the principalship—prioritizing competing demands, maintaining control of their own schedule, and handling the paperwork, stress, and time demands of the job—experienced higher job satisfaction than those with lower self-efficacy in these areas. Tables 17, 18, and 19 present the model summary, ANOVA table, and coefficients table, respectively, for the regression analysis.

Table 17

Model Summary Table from Multiple Regression Analysis Determining Association of Three Dimensions of Principal Self-Efficacy (PSE) with Job Satisfaction (N = 715)

Model summary[b]

					Change statistics					
Model	*R*	*R* square	Adjusted *R* square	Std. error of the estimate	*R* square change	*F* change	*df*1	*df*2	Sig. *F* change	Durbin-Watson
1	.635[a]	.403	.400	.46359	.403	159.803	3	711	.000	1.899

Note. a. Predictors: (Constant), PSE moral leadership, PSE management, PSE instructional leadership
b. Dependent variable: Average general job satisfaction.

Table 18

ANOVA Table from Multiple Regression Analysis Determining Association of Three Dimensions of Principal Self-Efficacy (PSE) with Job Satisfaction (N = 715)

ANOVA[a]

Model		Sum of squares	*df*	Mean square	*F*	Sig.
1	Regression	103.032	3	34.344	159.803	.000[b]
	Residual	152.804	711	.215		
	Total	255.836	714			

Note: a. Dependent variable: Average general job satisfaction.
b. Predictors: (Constant), PSE moral leadership, PSE management, PSE instructional leadership

Table 19

Coefficients Table from Multiple Regression Analysis Determining Association of Three Dimensions of Principal Self-Efficacy (PSE) with Job Satisfaction (N = 715)

Coefficients[a]										
	Unstandardized coefficients		Standardized coefficients			Correlations			Collinearity statistics	
Model	*B*	Std. error	Beta	*t*	Sig.	Zero-order	Partial	Part	Tolerance	VIF
1 (Constant)	1.221	.127		9.604	.000					
PSE instructional leadership	0.171	.025	.313	6.817	.000	.582	.248	.198	.398	2.511
PSE management	0.120	.017	.254	7.065	.000	.520	.256	.205	.652	1.533
PSE moral leadership	0.099	.026	.167	3.779	.000	.532	.140	.110	.432	2.316

Note. a. Dependent variable: Average general job satisfaction.

Summary of Study Findings

My purpose in conducting this study was to describe the relationship between self-efficacy and principal job satisfaction. I also described the levels of self-efficacy and job satisfaction in currently employed New Jersey principals, and identified which of the dimensions of (PSE) has the strongest association with job satisfaction. A multiple regression model was used for the main statistical analysis.

In response to research question 1: The descriptive statistics from the MSQ showed that the principal respondents were generally satisfied with their jobs. The results indicated that the principals were more intrinsically satisfied than extrinsically satisfied. The PSES descriptive statistics showed that the principals have generally high levels of self-efficacy in their jobs.

In response to research question 2: When controlling for demographic characteristics, PSE was found to be significantly related to job satisfaction.

In response to research question 3: Statistical mediation analysis revealed that PSE did significantly partially mediate the relationship between grade span and principal job satisfaction. PSE did not significantly mediate the relationship between Black or African American and principal job satisfaction, nor did PSE significantly mediate the relationship between multiple races and principal job satisfaction.

In response to research question 4: A simultaneous multiple regression analysis revealed that of the three dimensions of PSE—instructional leadership, management, and moral leadership—PSE for management had the strongest association with job satisfaction.

The next chapter will present a more detailed discussion of these findings and their implications, along with recommendations for future research.

CHAPTER 5: Discussion

The purpose of this quantitative, descriptive, correlational study was to describe the nature of the relationship between the job satisfaction of school principals and their self-efficacy, or the degree to which they believe they can handle the tasks associated with the job. This chapter includes a discussion of major findings as related to the literature on school principals' job satisfaction, on PSE, and on the relationship between the two when taking demographic characteristics into account. Implications are named that may be valuable for use by superintendents, policymakers, principal preparation program staff, and principals themselves. The chapter concludes with a discussion of the limitations of the study, areas for future research, and a brief summary.

Research Findings and Discussions

My goal in asking the first research question was to identify and describe the levels of self-efficacy and job satisfaction of currently employed principals in the state of New Jersey. The second research question, which was the overarching question guiding the study, examined the nature of the relationship between PSE and job satisfaction when taking demographic characteristics into account. My goal in asking the third research question was to determine the mediating effect, if any, of PSE on the relationship between demographic characteristics and job satisfaction, and the final research question compared the three dimensions of PSE to identify which dimension had the strongest association with job satisfaction.

Research Question (RQ) 1

The first research question asked, "What are the levels of self-efficacy and job satisfaction among currently employed public school principals in the state of New Jersey?" The results for this question can be divided into two parts: levels of self-efficacy and levels of job

satisfaction. The findings and discussion for each part of the first research question are detailed below.

Findings from RQ 1a: Levels of self-efficacy. The average of the 715 principals' scores on the Principal Self-Efficacy Scale (PSES) was 6.72 out of 9 points (*SD* = 0.97). This score indicates that, in general, the sample of school principals felt capable of fulfilling the duties required in their jobs. The average scores for each of the dimensions of PSE were 6.83 (*SD* = 1.10) for PSE for instructional leadership, 6.23 for PSE for management (*SD* = 1.26), and 7.11 for PSE for moral leadership (*SD* = 1.01). These results showed that the principals felt a higher sense of self-efficacy for leadership in the areas of values, ethics and behavior than in the areas of instructional leadership and management.

Discussion of RQ 1a: Levels of self-efficacy. The levels of self-efficacy reported by principals in this sample were generally high, indicating that the principals felt confident in executing their job-related responsibilities. Of the personal demographic characteristics that were examined in this study— gender, age, race, ethnicity, level of education, years as principal, and years in current position— the number of years served in their current positions was the only significant contributor to self-efficacy. Gender was not found to be related to PSE, which supports the findings of Tschannen-Moran and Gareis (2004) in their study of 544 Virginia principals. This finding differs, though, from the findings of Smith et al., (2006) which showed that female principals reported higher self-efficacy than males. Age was not a significant factor in PSE for this sample, contrary to Lucas's (2003) study, which found a significant correlation between age and self-efficacy for middle school principals in the Midwest. This contradiction could be due to the fact that Lucas's (2003) study focused on principals at the middle-school level, compared to the current study which examined the levels of self-efficacy for principals at

all levels. Although, just as in the findings of Lucas (2003) and Tschannen-Moran and Gareis (2004), years of experience as a principal did not significantly relate to PSE in the current study, the number of years a principal served in his or her current position was found to be a significant contributor. This result fits with Oplatka's (2004) finding that middle- and later-career principals reported a higher level of self-efficacy, and with Fisher's (2014) study of principals in Israel which showed that self-efficacy rises after a principal's fifth year on the job and stabilizes after 10 years. Just as Tschannen-Moran and Gareis (2005) reported in their study of 558 Virginia principals, race and ethnicity were not related to PSE in the current study of New Jersey principals. Level of education was not significantly related to principal self-efficacy in this study, unlike DeMoulin's (1992) finding that principals—particularly of middle and secondary schools—with higher levels of education reported higher self-efficacy than their peers.

Regarding school characteristics, the results of the current study showed that grade span and school setting were significant predictors of PSE, whereas school size and percentage of students on free or reduced-price lunch were not. Grade span of the principal's school was found to be significantly related to PSE, supporting the results of DeMoulin's (1992) study of 212 U.S. principals, which found that elementary principals had higher self-efficacy than secondary principals. Interestingly, school setting, though not a significant predictor of PSE in prior research (Tschannen-Moran & Gareis, 2004, 2005), emerged as a significant predictor in the current study, with urban principals reporting higher self-efficacy than suburban principals. Bandura (1977, 1982) asserts that performance mastery enhances self-efficacy—that is, after people perform a task successfully, they are more confident that they will experience success in that area again. This finding, then, may indicate that urban principals in this sample may face and tackle more frequent or more intense obstacles than suburban principals, building higher self-

efficacy in those areas. In contrast to what was reported in Smith et al.'s (2006) study of 284 U.S. principals and DeMoulin's (1992) study of 212 U.S. principals, school size was not a significant predictor of PSE in the current study. This finding fits with the findings of Tschannen-Moran and Gareis (2004, 2005), who found no significant correlation between these two variables. The difference in results may be due to the differences in instrumentation among the studies, as the current study utilized the same instrument as the study by Tschannen-Moran and Gareis (2004) —the PSES—whereas different instruments were used by the other researchers. Similar to prior studies, socioeconomic status or percentage of students on free or reduced-price lunch did not emerge as a significant predictor of PSE (Smith et al., 2006; Tschannen-Moran & Gareis, 2004, 2005).

Of the three dimensions of principal self-efficacy (PSE) identified by Tschannen-Moran and Gareis (2004), principals in this sample experienced the greatest sense of self-efficacy in the area of moral leadership, with PSE for instructional leadership ranking second, and PSE for management ranking third. These results support the findings of Tschannen-Moran and Gareis (2004), which measured the same order of self-efficacy levels for their sample of 544 Virginia principals. These findings point to the strength of the principals' confidence in their own abilities to lead well in the areas of promoting values and ethical behavior in staff and students, and their relative lack of confidence in handling the management tasks associated with the job. Smith et. al (2006) found, however, that principals were spending more time on such management tasks than on instructional practices. If this was also the case for the current sample of principals, the finding of a lack of confidence in handling management tasks is somewhat surprising, given Bandura's (1994) theory that the more often a person succeeds at a task the more efficacious he

or she feels in that area. A closer look at how principals spend their time may be warranted to gain a clearer understanding of how their self-efficacy beliefs are developed.

Findings from RQ 1b: Levels of job satisfaction. The average score from the Minnesota Satisfaction Questionnaire Short-Form (MSQ) was 3.83 on a 5-point scale (*SD* = 0.61). This score indicates that the sample of school principals felt generally satisfied in their jobs. The intrinsic average score was 4.01 (*SD* = 0.58), and the extrinsic job satisfaction average score was 3.47 (*SD* = 0.84), showing that the principals were more satisfied with the quality and rewards inherent in the work itself than with the extrinsic factors and rewards of the job. The results showed that race was associated with job satisfaction, with white respondents indicating higher levels of satisfaction than black and multiracial respondents. In addition, grade span of the school was significantly correlated with job satisfaction, with elementary principals reporting higher satisfaction than secondary principals.

Discussion of RQ 1b: Levels of job satisfaction. In general, the principals in this sample were satisfied in their jobs, according to their responses on the MSQ. Participants rated job satisfaction higher on intrinsic factors than extrinsic factors, indicating that pay and other extrinsic factors may be a challenge for school principals, and factors and rewards inherent in the work itself are more satisfying for principals. Just as in this study, where extrinsic satisfaction was rated lower for the principals than intrinsic satisfaction, prior studies also showed that extrinsic factors produced lower rates of satisfaction in principals. Specifically, salary, local policies, and long hours have been found to be positively related to principal departure and mobility intentions, and negatively related to principal job satisfaction (Howard & Mallory, 2008; Karakose et al., 2014; Maforah & Schulze, 2012; Sodoma & Else, 2009; Tekleselassie & Villarreal, 2011).

In addition to Maforah and Schulze (2012) who found that the intrinsic aspects of principals' work were meaningful to them, other studies have confirmed that intrinsic factors have significantly contributed to principal job satisfaction. Specifically, the intrinsic factors measured in this study, including achievement, social status, responsibility and creativity, had also emerged in prior studies as significant factors in principal job satisfaction. Historically, achievement and social status or recognition, were significant factors in principals' job satisfaction (Friesen, 1983; Iannone, 1973; Rogus, 1980; Schmidt, 1976) and have remained so in recent years (Fraser & Brock, 2006; Maforah & Schulze, 2012; Saiti & Fassoulis, 2012; Sodoma & Else, 2009; Wang et al., 2018). Autonomy, identified on the MSQ as responsibility and creativity, has also been positively associated with job satisfaction for principals in studies across the world over the last 40 years (Chang et al., 2015; Federici, 2013; Federici & Skaalvik, 2012; Friesen, 1983; Friesen et al., 1984; Maforah & Schulze, 2012; Price, 2012; Tekleselassie & Villarreal, 2011; Wang et al., 2018).

Of the personal characteristics of the principals measured in this sample—gender, age, race, ethnicity, level of education, years of experience as a principal, and years in current position—race was the only significant predictor of job satisfaction. The gender and age of the principals in this sample were not found to be significant contributors to job satisfaction, as had also been suggested by prior research (Chang et al., 2015; Eckman, 2004; Karakose et al., 2014; Tekleselassie & Villarreal, 2011). Years of experience also did not emerge as a significant predictor in the current study, which diverges from the findings of some prior studies that found that principals with more experience had a higher level of satisfaction (Chang et al., 2015; Price, 2012; Sodoma & Else, 2009). The level of education earned by the principals was not found to be significantly related to job satisfaction, similar to prior research (Chang et al., 2015). Race

emerged as a contributor to job satisfaction with white principals reporting higher levels of satisfaction than black or multiracial principals. There is little prior research on the correlation between race and principal job satisfaction; however, in their study of 77,000 highly educated employees, Hersch and Xiao (2016) examined job satisfaction by race and found that black professionals were less satisfied than white professionals. These researchers found that the lower satisfaction of black workers was not explained by immigrant status or individual or job characteristics, and they called for future research to explore other potential environmental factors. The current study confirms that further research is warranted to determine the reasons for this differential in job satisfaction.

Of the school characteristics examined in this study—school setting, grade span, school size, and percentage of students on free or reduced-price lunch—grade span was the only characteristic that had a significant correlation with principal job satisfaction. Some researchers have found that school setting impacts principal job satisfaction (Başer & Özel, 2013; Chang et al., 2015; Poppenhagen et al., 1980; Tekleselassie & Villarreal, 2011); however, the current study confirmed the results of other studies that found no link between the two variables (Darmody & Smyth, 2016; Johnston et al., 1981; Vang, 2015). Just as school setting was not significantly related to job satisfaction of principals in this sample, neither was the socioeconomic status of the student body. This variable was measured as the percentage of students on free or reduced lunch, and the analysis divided the variable into two categories: less than 50% of students on free or reduced-price lunch, and 50% or more of students on free or reduced-price lunch. It was found that job satisfaction did not differ significantly for principals in these two groups. School size did not emerge as a contributor to principal job satisfaction in this study, supporting prior research by Tekleselassie and Villarreal (2011), yet contradicting

Eckman's (2002) finding that larger schools resulted in lower satisfaction for principals. Grade span of the school was a significant contributor to job satisfaction for principals in this sample, despite some prior studies that found no link (Chang et al., 2015; Wang, 2018). This finding may support the study that found that high school principals were less satisfied as a result of the time demands associated with the job (Howard & Mallory, 2008).

Results of this study showed that principals were generally satisfied with their jobs, and experienced higher intrinsic than extrinsic satisfaction. Of the demographic characteristics examined in this sample, significant predictors of job satisfaction for principals included race and grade span of the school. Gender, age, years of experience, and level of education were not found to be significantly related to job satisfaction for this sample, nor were school setting, school size, school neighborhood, or percentage of students on free or reduced-price lunch.

Research Question 2

The second research question asked, "What is the nature of the relationship between self-efficacy and principal job satisfaction when controlling for demographic characteristics?" This question was the overarching research question for the study. The findings and discussion for the second research question are detailed below.

Findings from RQ 2: The relationship between self-efficacy and principal job satisfaction, when controlling for demographic characteristics. The analysis for this research question showed self-efficacy to be significantly related to principal job satisfaction when demographic characteristics were controlled for. To run the analysis, I entered as control variables the demographic characteristics that had emerged as significant predictors of job satisfaction—Black or African American, multiple races, and grade span. When these characteristics were controlled for, PSE was found to be a significant predictor of job

satisfaction, indicating that the job satisfaction of principals increases as their beliefs in their own abilities to succeed in the job increase.

Discussion of RQ 2: The relationship between self-efficacy and principal job satisfaction, when controlling for demographic characteristics. The results of this study indicated a significant relationship between self-efficacy and principal job satisfaction. Other researchers have also reported such a link (DeMoulin, 1992; Federici & Skaalvik, 2012; Maforah & Schulze, 2012; Richford & Fortune, 1984; Sari, 2005; Tschannen-Moran & Gareis, 2004). The earliest study on record examining self-efficacy and principal job satisfaction found that there was a positive relationship between the two constructs for 225 secondary principals in the state of Virginia (Richford & Fortune, 1984). Tschannen-Moran and Gareis (2004) conducted a study in which they used the PSES, the same tool used in the current study, to measure the self-efficacy of 544 elementary, middle, and high school principals in the state of Virginia. They found that self-efficacy was slightly related to job satisfaction ($r = 0.17$; $p < 0.01$) (Tschannen-Moran & Gareis, 2004). This was the most similar of the studies in the literature to the current study, in that the sample included both elementary and secondary principals from a state on the eastern coast of the U.S. The results of the two studies differed in that the findings of Tschannen-Moran and Gareis (2004) showed that self-efficacy was only slightly related to job satisfaction, whereas in the current study there was a significant and strong correlation between the two constructs. It is important to note that Tschannen-Moran and Gareis (2004) did not use the MSQ to measure job satisfaction, as was done in the current study, but instead measured job satisfaction by asking respondents one question: "Would you do it again?" If the current study had used the same method as Tschannen-Moran and Gareis (2004) to measure job satisfaction, it may have resulted in outcomes that were more similar. Outside the United States, Maforah and

Schulze (2012) found that PSE significantly impacted job satisfaction. This study's sample differed from that of the current study in that it included only 30 principals, all secondary principals from rural schools in South Africa. Given the different nature of the study's sample, though, it is interesting that its results were similar to those of the current study. The sample in Sari's (2005) study of 33 special-education principals in Turkey was also quite different from the current study's sample; yet again, the results of the two studies were similar, showing a significant relationship between self-efficacy and job satisfaction. The largest sample size found in the literature on PSE and job satisfaction was the study by Federici and Skaalvik (2012) of 1,818 elementary and middle school principals in Norway, which also showed that PSE was positively related to job satisfaction.

The results of the current study extend previous research and support the hypothesis that there is a significant relationship between self-efficacy and job satisfaction among currently employed principals in New Jersey.

Research Question 3

The third research question asked, "To what extent does self-efficacy mediate the impact of demographic characteristics on principal job satisfaction?" The findings and discussion for this research question are detailed below.

Findings from RQ 3: The mediating effect of PSE on the impact of demographic characteristics on principal job satisfaction. The results for this research question showed that PSE did partially mediate the relationship between grade span and principal job satisfaction, but did not mediate the relationship between Black or African American and principal job satisfaction, nor the relationship between multiple races and principal job satisfaction. These results indicate that although elementary principals had higher job satisfaction than secondary

principals, the correlation between job satisfaction and grade span was weakened when PSE was added as a mediator.

Discussion of RQ 3: The mediating effect of PSE on the impact of demographic characteristics on principal job satisfaction. The current study found that PSE did not mediate the relationship between a principal's race and job satisfaction but did partially mediate the relationship between grade span and job satisfaction. Although prior research is lacking in the area of self-efficacy as a possible mediator between demographic variables and principal job satisfaction, there have been studies that examined self-efficacy as a mediator impacting job satisfaction in other fields. In their study of 315 public service employees in Taiwan, Hsieh et al. (2017) researched whether self-efficacy acted as a mediator and moderator between emotional labor and job satisfaction. The results showed that self-efficacy did mediate the positive effect of emotional labor and alleviated its negative relationship with job satisfaction. Another study looked at the mediating role of teacher self-efficacy and the relationship between emotional intelligence and job burnout in 225 public primary school teachers in the city of Babol, Iran (Barari & Jamshidi, 2015). The researchers used the Teacher Self-Efficacy Scale developed by Tschannen-Moran and Woolfolk (2001), which was a foundational tool in the development of the PSES (Tschannen-Moran & Gareis, 2004). The results showed that burnout was well-explained by emotional intelligence and self-efficacy after examining self-efficacy as a mediator variable. A study of 241 workers in Italy showed that self-efficacy mediated the relationship between job insecurity and job satisfaction (Guarnaccia et al., 2016).

In the current study, PSE partially mediated the relationship between grade span and job satisfaction. Specifically, the school grade span of the principals in this sample, although significantly related to their job satisfaction, had a weaker correlation once the principals' levels

of self-efficacy were taken into account. It can be assumed, then, that principals of high schools with high levels of self-efficacy are more likely to experience satisfaction in their jobs than those with lower self-efficacy, and principals of elementary schools with low self-efficacy may not experience the high level of job satisfaction expected.

Research Question 4

The fourth and final research question asked, "Which of the dimensions of PSE (instructional leadership, management, or moral leadership) has the strongest association with principal job satisfaction?" The findings and discussion for this research question are detailed below.

Findings from RQ 4: The dimension of PSE with the strongest association to principal job satisfaction. The results for this question showed that of the three dimensions of principal self-efficacy—PSE for instructional leadership, PSE for management, and PSE for moral leadership—PSE for management had the strongest association with job satisfaction, and the association was statistically significant. This outcome indicated that principals who believed that they were capable of handling the various management tasks associated with the job experienced higher job satisfaction.

Discussion of RQ 4: The dimension of PSE with the strongest association to principal job satisfaction. Of the three dimensions of PSE, PSE for management had the strongest association with job satisfaction, PSE for instructional leadership had the second highest association, and PSE for moral leadership had the lowest association with job satisfaction. There is a limited amount of literature that addresses the dimensions of PSE as they were developed by Tschannen-Moran and Gareis (2004) in the PSES. For their study of 300 principals in Norway, Federici and Skaalvik (2011) developed their own scale to measure PSE,

which had eight dimensions: economic management, instructional leadership, relation to municipal authority, parental relations, relation to local community, administrative management, teacher support, and school environment. These researchers were looking specifically at work engagement as the outcome variable, which they found was positively related to job satisfaction. They found that the dimension of PSE which most strongly predicted work engagement was PSE for instructional leadership, followed by PSE for administrative management, and then PSE for school environment. Of the eight factors measured in the Norway study, it is interesting to note that the two highest predictors of engagement were PSE for instructional leadership and PSE for management. This outcome aligns to the results of the current study, where PSE for management was the strongest of only three dimensions in its association with job satisfaction, and PSE for instructional leadership had the second strongest association.

Similar to previous findings (Maforah & Schulze, 2012; Sodoma & Else, 2009), the results of the current study, in which PSE for management was most strongly associated with a principal's job satisfaction, suggest that the management tasks of the job, including the paperwork and time demands associated with the principalship, are key factors in how satisfied principals are in their roles.

It is interesting to note that PSE for moral leadership was the dimension of self-efficacy with the highest average score for this principal sample; however, when analyzed in terms of its association with job satisfaction, it had the weakest association of the three dimensions. In the area of PSE for moral leadership, as noted in the previous chapter, the item on which the principals scored the highest was "to what extent can you handle effectively the discipline of students in your school?" It is evident from the relatively high average score—7.48 out of 9 (*SD* = 1.29)—that the principals in this sample had confidence in their own abilities to handle student

discipline. However, given prior research which suggests that student discipline is generally a source of dissatisfaction for principals and contributes to a principal's intent to leave (Maforah & Schulze, 2012; Tekleselassie & Villarreal, 2011), the fact that PSE for moral leadership was the dimension least associated with job satisfaction is somewhat surprising. In the area of PSE for instructional leadership, which was the second strongest of the three dimensions in its association with job satisfaction, the item that was scored the lowest by the principals was "to what extent can you raise student achievement on standardized tests?" This result fits with prior research which indicated that pressure to improve student achievement is negatively related to principal job satisfaction (Maforah & Schulze, 2012).

Implications

These study results highlight the important role that the dispositional factor of self-efficacy plays in principal job satisfaction. They reveal that the stronger principals' beliefs are in their own capabilities at work, the greater their job satisfaction. Job satisfaction leads to job commitment and reduces intent to leave (Locke & Latham, 1990; Lu et al., 2005; Price, 2012; Tekleselassie & Villarreal, 2011). Given that retention and longevity of principals result in increased student achievement, teacher retention, and teacher commitment (Babo & Postma, 2017; Fuller, 2012; Hargreaves et al., 2003), the results of this study have important implications for theory, research and practice.

The findings of the study also support and confirm current theories of job satisfaction and self-efficacy. The results align with each of the four major theories of job satisfaction: Maslow's (1943) hierarchy of needs theory, Herzberg's (1959) motivator-hygiene theory, Hackman and Oldham's (1976) Job Characteristics Model, and the dispositional approach to job satisfaction. Maslow's (1943) hierarchy of needs theory posits that once an individual's basic needs and

safety needs are met, he or she seeks belonging, esteem and self-actualization. In line with Maslow's belonging stage, and with the Hawthorne effect, where Mayo (1933) found that workers' motivation increased when they considered themselves part of a group, this study revealed that interpersonal relationships at work was an area of satisfaction for principals. Social status or esteem was also an area of satisfaction for the principals in this sample. Just as Maslow's (1943) theory argued that self-actualization or reaching one's full potential is needed for full satisfaction, this study revealed that self-efficacy, or believing in one's own abilities, is significantly related to job satisfaction. The principals in this sample rated themselves lower on extrinsic than intrinsic satisfaction, which confirms Herzberg's (1959) theory that when extrinsic hygiene factors are missing, job satisfaction decreases. In addition, the principals' scores on the MSQ administered in this study supported the model of Hackman and Oldham (1976), in which five core dimensions contribute to job satisfaction—skill variety, task identity, task significance, autonomy, and feedback. The clear link that emerged in this study between self-efficacy and principal job satisfaction effectively furthers the research on the dispositional approach to job satisfaction, supporting the assertions of Judge and Bono (2001) that several dispositional factors, including self-efficacy, are significantly related to job satisfaction.

The relationship between self-efficacy and principal job satisfaction revealed in this study confirms Bandura's (1977, 1982) theory of self-efficacy, which posits that "self-efficacy beliefs determine how people *feel* [emphasis added], think, motivate themselves and behave" (p. 71). Job satisfaction has been defined as positive feelings about work (De Nobile, 2003). It follows then that, with both constructs centered on an individual's feelings, self-efficacy would be related to job satisfaction, as evidenced by the results of this study. Bandura (1977, 1982) argues that the higher self-efficacy a person has, the more likely that individual is to take action, to

persist in achieving goals and to cope with difficult situations. The principalship presents unique challenges that are best served by an individual who can take action and who exhibits persistence and strong coping skills (Davis et al., 2005; Poppenhagen et.al, 1980). The results of the current study, which reveal a significant correlation between principal job satisfaction and self-efficacy, extend self-efficacy theory by indicating that high levels of self-efficacy are required not only for *success* in a high-level job (Bandura, 1994), but also for *satisfaction* in a high-level job.

In addition to supporting and extending current theories of job satisfaction and self-efficacy, this study has important implications for research. This study furthers the research on the job satisfaction of principals, revealing the current levels of job satisfaction for principals in the state of New Jersey and the factors contributing to those levels of satisfaction. The study results support prior research findings, showing that both intrinsic and extrinsic factors influence principal job satisfaction, with intrinsic factors being more satisfying than extrinsic factors (Maforah & Schulze, 2012; Wang, 2018). In addition, the study extends the research on the demographic characteristics related to principal job satisfaction, particularly on the variable of race, which has not been an area of focus in past studies.

This study provides insight into the self-efficacy levels of principals in the state of New Jersey, revealing that, in general, these principals report a high level of self-efficacy. Of the three dimensions of self-efficacy that were measured, moral leadership was rated the highest dimension of PSE within this sample, revealing that principals felt confident in their beliefs that they could impact the moral environment of their school communities. The results also show that the principals felt they could handle the student discipline in the school, which contradicts prior research that found that student discipline contributes to principals' dissatisfaction and their intent to leave (Maforah & Schulze, 2012; Tekleselassie & Villareal, 2011; Wang et al., 2018).

This study opens the door to future research on the three dimensions of PSE—instructional leadership, management, and moral leadership (Tschannen-Moran & Gareis, 2004).

Most studies on principal job satisfaction have examined extrinsic and intrinsic factors of satisfaction such as salary, working conditions, workload, interpersonal relationships and role definition. There have been few studies that have examined dispositional factors as they relate to principal job satisfaction. This study, which showed a significant relationship between self-efficacy and principal job satisfaction, furthers the research on the dispositional factors of job satisfaction, specifically on how a principal's beliefs about his or her own capabilities influence job satisfaction. In addition, this study may be the first to look at the three dimensions of PSE and how they relate to job satisfaction for American school principals. Tschannen-Moran and Gareis (2004) found that PSE was slightly related to job satisfaction; however, these researchers did not identify which of the three dimensions—PSE for instructional leadership, PSE for management, or PSE for moral leadership—had the strongest association with job satisfaction. Outside the United States, Federici and Skaalvik (2012) looked to see which dimensions of self-efficacy influenced principals' work engagement, a construct that they found to relate to job satisfaction, and they found that management was the second highest of the eight dimensions of PSE defined in their study to relate to work engagement. The current study found that principals' self-efficacy for management had the strongest association with job satisfaction, thereby extending the research on the specific dimensions of self-efficacy and their relationship to job satisfaction.

In terms of practice, this study has strong implications for superintendents, for policymakers, for principal preparation program staff, for professional development providers, and for principals themselves.

It is essential for superintendents, who are responsible for hiring and evaluating principals and for providing opportunities for professional development, to be armed with knowledge of which factors contribute to a principal's job satisfaction. This knowledge has the potential to impact principal retention and reduce turnover. If superintendents know that self-efficacy significantly contributes to a principal's job satisfaction, they can provide professional development for principals on how to develop one's own self-efficacy. In addition, superintendents and hiring committees can include screening for self-efficacy in the recruitment process, considering the self-efficacy levels of potential candidates for principal openings within their districts.

Also, this study has implications for practice on the part of principal preparation program staff and policymakers. Because of the high rate of attrition and mobility of principals in America (Harris Interactive, 2013), it is important for policymakers and principal preparation programs to take into account the potential for dissatisfaction and burnout of principals in the field. As policymakers and staff of principal certification programs are creating and updating their curriculum, it should not be overlooked that the dispositional factor of self-efficacy significantly impacts job satisfaction. Principal preparation program staff should incorporate into the coursework the concept of self-efficacy and how to develop it in various areas, including the areas of instructional leadership, management, and moral leadership. Policymakers should consider making self-efficacy a required area of study for principal certification.

Principals themselves can benefit greatly from the information that this study reveals. The results raise awareness for principals regarding their own levels of job satisfaction and self-efficacy, helping them to assess their own professional development needs. Principals may not currently be aware of the concept of self-efficacy and how it contributes to job satisfaction. By

raising awareness of the impact of self-efficacy and the dimensions of PSE—instructional leadership, management, and moral leadership—this study can help principals recognize their strengths and identify areas where they may need to build their own self-efficacy. In this way, principals can contribute to their own job satisfaction. In the past, studies have focused on intrinsic and extrinsic factors of job satisfaction, most of which are outside the principal's control. Self-efficacy, however, is an area where principals have a degree of control over their own success and satisfaction.

In addition, this study has implications for professional development providers. Companies that provide professional development for principals and school leaders should provide courses and workshops in the areas of understanding self-efficacy and building PSE. These resources will create more opportunities for principals to learn about self-efficacy and to develop it in themselves, and they will provide opportunities for districts to support principals in bolstering their own satisfaction. Promoting PSE has the potential to enhance the job satisfaction of principals, resulting in an increased intent to stay, which will positively impact staff and students.

Limitations to the Study

The following limitations to this study are important to consider:

1. The design of the study was correlational; therefore, it cannot be used to suggest cause-effect relationships among variables.
2. The study was cross-sectional and collected data from participants at a single point in time only. A longitudinal study would provide data over a longer period of time, and thus give a deeper understanding of the relationship between self-efficacy and principal job satisfaction.
3. The sample for this study was nonrandomized. Although commonly used in educational research, convenience sampling is limited as far as to whom the results can be generalized (Gay et al., 2012). The data were obtained from public school principals in the state of New Jersey; therefore, the results or findings from this study cannot be generalized to other populations.
4. Approximately 30% of the 2,526 recruited principals participated in the study. Although this number was sufficient to conduct the statistical analyses for the study, the large number of nonreturns introduces a potential response bias (Gay et al., 2012).
5. The survey was emailed by the NJPSA to 1,730 recipients from the NJPSA membership principal database. I then emailed the survey again to the 2,526 principals listed on the NJDOE website, and three reminder emails were sent. It is possible that some participants may have completed and submitted the survey twice. It is also possible that retired principals who were still listed in the NJPSA database completed the survey.
6. Although school performance emerged in the literature review as a significant factor in principals' job satisfaction, the variables examined in this study did not include school

performance. Because there are no state-mandated assessments for students in the primary grades (K - 2) in the state of New Jersey, it was not feasible to collect data on school performance from all participants.

7. The demographic variables of years of experience as a principal, years in current position, school size, and percentage of students on free and reduced-price lunch were converted to dichotomous variables for the statistical analysis, due to the multiple-choice structure of the survey items. The variable of age was presented in multiple choice format as well, and participants were asked to select an age range. If these survey items had been open-ended, participants would have entered the exact number rather than a range for each of these items, and the resulting data would have been more precise.
8. When I performed the statistical analysis for the grade span variable, any school that served students in grade nine or above was considered a secondary school, and any school that did not serve students in grade nine or above was considered an elementary school. Although it would have been beneficial to the research to divide the grade span variable into three categories—elementary, middle, and high school—due to the many grade level configurations within schools in New Jersey, it was not feasible to do so.

Recommendations for Future Research

This study added to the small body of research available on the relationship between self-efficacy and job satisfaction for public school principals. Based on the findings of this study and additional questions that emerged during the research process, I recommend future research to extend the knowledge in the areas of principal job satisfaction and PSE.

1. A qualitative study would dig deeper into principals' perceptions of self-efficacy and job satisfaction. Also, a longitudinal study would offer more insights, whereas the current cross-sectional study looks at only one moment in time.
2. As this was the first and only study on the mediating effect of self-efficacy on principal job satisfaction, and the results showed that there was, in fact, a partial mediating effect on the relationship between grade span and job satisfaction, further studies are warranted in this area.
3. Judge and Bono (2001) found that, in addition to self-efficacy, the dispositional factors of self-esteem, locus of control, and emotional stability are all significant predictors of job satisfaction. Further studies on these relationships for school principals are needed.
4. The results of this study showed that principals have the lowest self-efficacy in the area of management, but that self-efficacy for management had the strongest association with principal job satisfaction. Further research on this dimension of self-efficacy and its relationship to principal job satisfaction is warranted.
5. The item on the PSES that resulted in the lowest average score was "to what extent can you raise student achievement on standardized tests?" This result indicated that principals feel the least efficacious in the area of raising student test scores. Future studies on principals' perceptions of instructional leadership and their own capacity to improve student achievement are needed.
6. I recommend that this study be replicated in other states, to extend the population and to further the knowledge on principal job satisfaction in America.

7. Additional studies are needed on the job satisfaction of principals who have recently left the profession or left their positions, in order to determine the factors that are related to principal attrition and mobility.
8. Future research is needed on the relationship of grade span and principal job satisfaction, as this study showed that elementary principals reported greater job satisfaction than secondary principals.
9. I recommend further research on the relationship between race and principal job satisfaction. The study revealed that white principals expressed higher job satisfaction than black and multiracial respondents. Race is an area that has not been looked at in recent research on principal job satisfaction, but it is an important one to explore in order to understand the differential that emerged in this study.
10. I recommend future studies to examine how much of a principal's time is spent on management, instructional leadership tasks and moral leadership tasks, and how time spent may relate to PSE and principal job satisfaction.
11. Future research should look at ways to develop or increase self-efficacy in principals. Bandura (1977, 1982) identifies four ways to build self-efficacy: mastery, vicarious experiences, verbal persuasion, and physiological states. Further research into which of these sources have been used by high-efficacy principals to develop their self-efficacy will help to identify potential areas of professional development for principals with low self-efficacy.

Conclusion

This study examined the self-efficacy and job satisfaction of 822 principals working in New Jersey public schools. This study extended the research on the role of dispositional factors,

specifically self-efficacy, in determining the job satisfaction of principals. The results indicate that self-efficacy was a significant predictor of principal job satisfaction. Using regression analysis, this study investigated which dimension of PSE had the strongest association with job satisfaction, and whether self-efficacy mediated the relationship between demographic characteristics and job satisfaction. PSE for management had the strongest association with job satisfaction, when compared with PSE for instructional leadership and PSE for moral leadership. This study also showed that self-efficacy partially mediates the relationship between grade span and job satisfaction. Although ongoing study is needed to discover more about the nature of school principals' job satisfaction, this study provides insights into the levels of job satisfaction for current public school principals and the important relationship between self-efficacy and principal job satisfaction.

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Appendix A

Principal Self-Efficacy and Job Satisfaction Survey

Job Satisfaction of New Jersey Public School Principals

Invitation to Participate in a Research Study

You are being invited to participate in a research study about the job satisfaction of public school principals in the state of New Jersey. The study is being conducted by Kerry Postma, a student in the Education Leadership Executive Ed.D. program at Seton Hall University, as part of a dissertation.

Why You Were Selected as a Possible Participant

You were selected as a possible participant in this study because you are currently employed as a principal (including school leadership positions that may be known by other titles such as "Head of School" or "Superintendent/Principal") located in the state of New Jersey.

Description of the Survey

There are no known risks if you decide to participate in this research study. There are no costs to you for participating in this study. The information you provide will be used to determine how self-efficacy beliefs influence a principal's job satisfaction. The survey includes items from a job satisfaction questionnaire developed by Weiss, Dawis, England, and Lofquist (1967). In addition, the survey includes items from a principal self-efficacy questionnaire that was designed by Tschannen-Moran and Gareis (2004), who gave me permission to use their questionnaire to collect the data for my dissertation research study. There will also be a section of the survey that asks for demographic information including your age, ethnicity and your years of experience as a principal. The questionnaire will take about 9 minutes to complete. The information collected may not benefit you directly, but the information learned in this study should provide more general benefits to school principals through improved school leadership policies in the future.

Anonymity of Participants

This questionnaire is anonymous. Do not include your name anywhere in the questionnaire. This is a web-based questionnaire, in which absolute anonymity cannot be guaranteed, however IP addresses will not be collected and the results will be submitted through Surveymonkey.com, not directly to the researcher. The researcher will not be able to identify you or your answers, and will not know whether or not you participated in the study. Individuals from the Institutional Review Board may inspect these records. Should the data be published, no individual information will be disclosed.

Participation is Voluntary

Your participation in this study is voluntary. By completing and submitting the answers to the questionnaire, you are voluntarily agreeing to participate. Upon submission of your answers, you are also voluntarily agreeing to allow the researcher to utilize the data for potential future research related to job satisfaction of public school principals. You are free to decline to answer any particular question that does not seem reasonable. However, the validity of the findings is greater when the questionnaire is answered completely.

Contact Information for the Researcher

If you have any questions about the study, you may contact me, Kerry Postma, kerry.postma@student.shu.edu, or my advisor, Dr. Gerard Babo, gerard.babo@shu.edu. If you are interested in having a copy of the dissertation once it is published, please email the researcher at the address below. Please understand that doing so will void your anonymity to the researcher; however, the researcher still will not be able to see what your responses were. Also, the researcher will not disclose which participants requested copies of the study to any persons other than the dissertation committee members. The Seton Hall University Institutional Review Board (IRB) has reviewed my request to conduct this project. If you have any concerns about your rights in this study, please contact Mary F. Ruzicka, Ph.D., Director of the Seton Hall University IRB at 973.313.6314 or email Dr. Ruzicka at irb@shu.edu. Thank you for consideration in participating in this research.</

Demographics

Please respond to the questions below by selecting the best answer choice(s).

1. What is your gender?

- ◯ Male
- ◯ Female

2. What is your age?

- ◯ 18 - 24 years old
- ◯ 25 - 34 years old
- ◯ 35 - 44 years old
- ◯ 45 - 54 years old
- ◯ 55 - 64 years old
- ◯ 65 - 74 years old
- ◯ 75 years or older

3. Are you of Hispanic, Latino, or Spanish origin?

- ◯ Yes
- ◯ No

4. How would you describe yourself? Select all that apply.

- ☐ American Indian or Alaska Native
- ☐ Asian
- ☐ Black or African American
- ☐ Native Hawaiian or other Pacific Islander
- ☐ White

5. What is the highest degree or level of school you have completed? If currently enrolled, highest degree received.

- ◯ Bachelor's degree
- ◯ Completed some postgraduate
- ◯ Master's degree
- ◯ Ph.D., Ed.D. or other doctoral degree
- ◯ Other advanced degree beyond a Master's degree

6. How long have you been a principal?

- ◯ Less than a year
- ◯ 1 - 3 years
- ◯ 4 - 6 years
- ◯ 7 - 9 years
- ◯ 10 years or more

7. How long have you been in your current position?

- ◯ Less than a year
- ◯ 1 - 3 years
- ◯ 4 - 6 years
- ◯ 7 - 9 years
- ◯ 10 years or more

8. How many students are enrolled in your school?

- ◯ Under 100 students
- ◯ 100 - 199 students
- ◯ 200 - 299 students
- ◯ 300 - 399 students
- ◯ 400 - 499 students
- ◯ 500 students or more

9. What grade levels does your school include? Select all that apply.

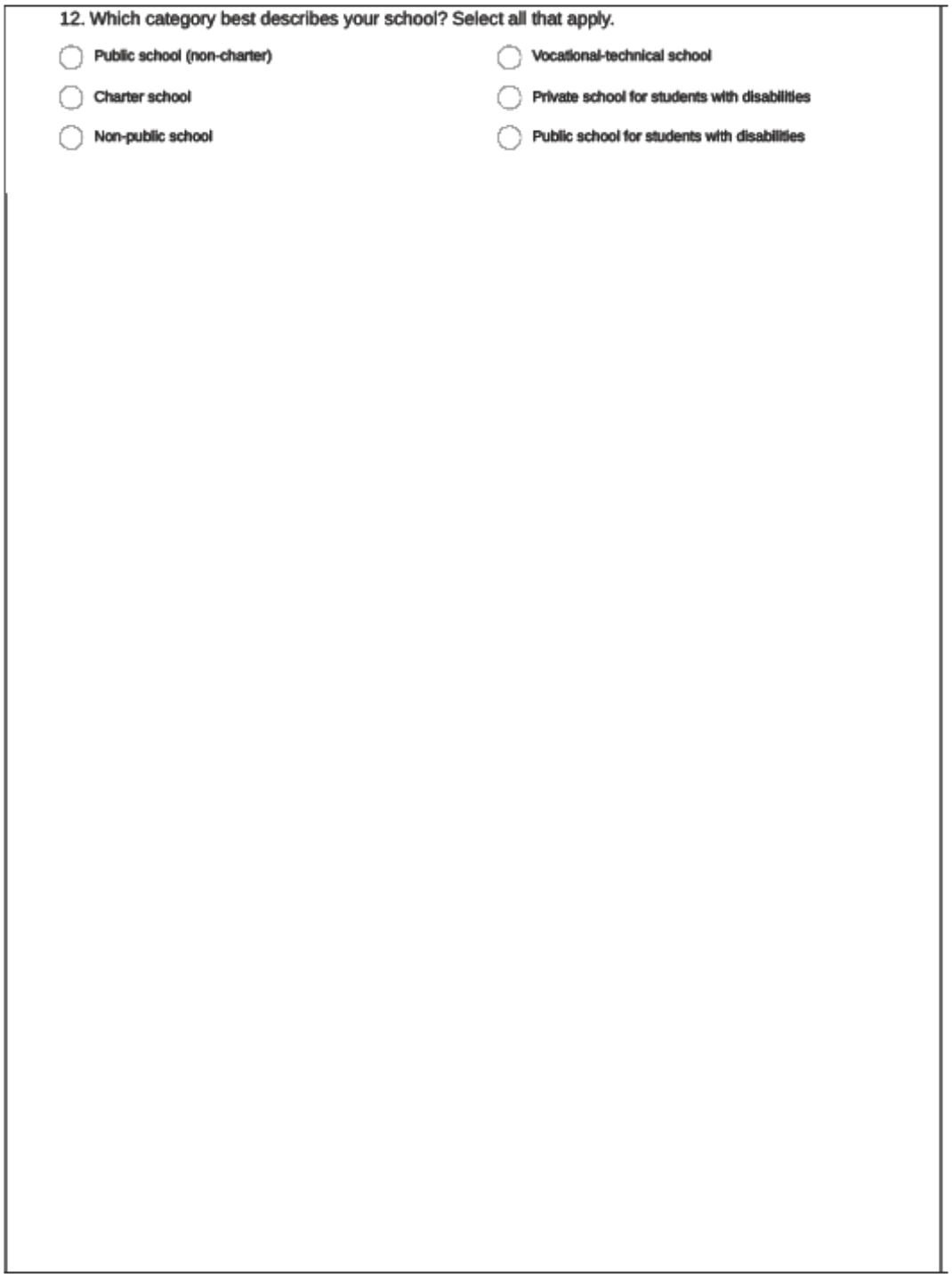
- ☐ Preschool
- ☐ Kindergarten
- ☐ Grade 1
- ☐ Grade 2
- ☐ Grade 3
- ☐ Grade 4
- ☐ Grade 5
- ☐ Grade 6
- ☐ Grade 7
- ☐ Grade 8
- ☐ Grade 9
- ☐ Grade 10
- ☐ Grade 11
- ☐ Grade 12
- ☐ Beyond Grade 12

10. Which category best describes your school neighborhood or setting?

- ◯ Urban
- ◯ Suburban
- ◯ Rural

11. What percentage of students in your school are eligible for free or reduced lunch?

- ◯ 0 - 24%
- ◯ 25 - 49%
- ◯ 50% or more


12. Which category best describes your school? Select all that apply.

- ◯ Public school (non-charter)
- ◯ Charter school
- ◯ Non-public school
- ◯ Vocational-technical school
- ◯ Private school for students with disabilities
- ◯ Public school for students with disabilities

Job Satisfaction

The purpose of this section of the questionnaire is to give you a chance to tellhow you feel about your present job, what things you aresatisfied with and what things you arenot satisfied with.

On the basis of your answers and those of people like you, we hope to get a better understanding of the things people like and dislike about their jobs.

On this page you will find statements about yourpresent job.
• Read each statement carefully.
• Decide how satisfied you feel about the aspect of your jobdescribed by the statement.

Keeping the statement in mind:
-if you feel that your job gives youmore than you expected, click the circle next to "Very Satisfied";
-if you feel that your job gives youwhat you expected, click the circle next to "Satisfied";
-if you cannot make up your mind whether or not the job gives you what you expected, click the circle next to "Neither Satisfied nor Dissatisfied";
-if you feel that your job gives youless than you expected, click the circle next to "Dissatisfied";
-if you feel that your job gives youmuch less than you expected, click the circle next to "Very Dissatisfied".

• Remember: Keep the statement in mind when decidinghow satisfied you feel about that aspect of your job.

• Do this forall statements. Please answer every item.

Be frank and honest Give a true picture of your feelings about yourpresent job.

Ask yourself: How satisfied am I with this aspect of my job?
Very Satisfied means I am very satisfied with this aspect of my job.
Satisfied means I am satisfied with this aspect of my job.
Neither means I can't decide whether I am satisfied or not with this aspect of my job.
Dissatisfied means I am dissatisfied with this aspect of my job.
Very Dissatisfied means I am very dissatisfied with this aspect of my job.

Weiss, D. J., Dawis, R. V. England, G. W. and Lofquist, L. H. (1967), Manual for the Minnesota Satisfaction Questionnaire. Vol. 22, Minnesota Studies in Vocational Rehabilitation, Minneapolis: University of Minnesota, Industrial Relations Center.

13. On my present job, this is how I feel about being able to keep busy all the time

- ◯ Very Dissatisfied
- ◯ Dissatisfied
- ◯ Neither Dissatisfied nor Satisfied
- ◯ Satisfied
- ◯ Very Satisfied

14. On my present job, this is how I feel about the chance to work alone on the job

- ◯ Very Dissatisfied
- ◯ Satisfied
- ◯ Dissatisfied
- ◯ Very Satisfied
- ◯ Neither Dissatisfied nor Satisfied

15. On my present job, this is how I feel about the chance to do different things from time to time

- ◯ Very Dissatisfied
- ◯ Satisfied
- ◯ Dissatisfied
- ◯ Very Satisfied
- ◯ Neither Dissatisfied nor Satisfied

16. On my present job, this is how I feel about the chance to be "somebody" in the community

- ◯ Very Dissatisfied
- ◯ Satisfied
- ◯ Dissatisfied
- ◯ Very Satisfied
- ◯ Neither Dissatisfied nor Satisfied

17. On my present job, this is how I feel about the way my boss handles his/her workers

- ◯ Very Dissatisfied
- ◯ Satisfied
- ◯ Dissatisfied
- ◯ Very Satisfied
- ◯ Neither Dissatisfied nor Satisfied

18. On my present job, this is how I feel about the competence of my supervisor in making decisions

- ◯ Very Dissatisfied
- ◯ Satisfied
- ◯ Dissatisfied
- ◯ Very Satisfied
- ◯ Neither Dissatisfied nor Satisfied

19. On my present job, this is how I feel about being able to do things that don't go against my conscience

- ◯ Very Dissatisfied
- ◯ Satisfied
- ◯ Dissatisfied
- ◯ Very Satisfied
- ◯ Neither Dissatisfied nor Satisfied

20. On my present job, this is how I feel about the way my job provides for steady employment

- ◯ Very Dissatisfied
- ◯ Satisfied
- ◯ Dissatisfied
- ◯ Very Satisfied
- ◯ Neither Dissatisfied nor Satisfied

21. On my present job, this is how I feel about the chance to do things for other people

- ◯ Very Dissatisfied
- ◯ Dissatisfied
- ◯ Neither Dissatisfied nor Satisfied
- ◯ Satisfied
- ◯ Very Satisfied

22. On my present job, this is how I feel about the chance to tell people what to do

- ◯ Very Dissatisfied
- ◯ Dissatisfied
- ◯ Neither Dissatisfied nor Satisfied
- ◯ Satisfied
- ◯ Very Satisfied

23. On my present job, this is how I feel about the chance to do something that makes use of my abilities

- ◯ Very Dissatisfied
- ◯ Dissatisfied
- ◯ Neither Dissatisfied nor Satisfied
- ◯ Satisfied
- ◯ Very Satisfied

24. On my present job, this is how I feel about the way company policies are put into practice

- ◯ Very Dissatisfied
- ◯ Dissatisfied
- ◯ Neither Dissatisfied nor Satisfied
- ◯ Satisfied
- ◯ Very Satisfied

25. On my present job, this is how I feel about my pay and the amount of work I do

- ◯ Very Dissatisfied
- ◯ Dissatisfied
- ◯ Neither Dissatisfied nor Satisfied
- ◯ Satisfied
- ◯ Very Satisfied

26. On my present job, this is how I feel about the chances for advancement on this job

- ◯ Very Dissatisfied
- ◯ Dissatisfied
- ◯ Neither Dissatisfied nor Satisfied
- ◯ Satisfied
- ◯ Very Satisfied

27. On my present job, this is how I feel about the freedom to use my own judgment

- ◯ Very Dissatisfied
- ◯ Dissatisfied
- ◯ Neither Dissatisfied nor Satisfied
- ◯ Satisfied
- ◯ Very Satisfied

28. On my present job, this is how I feel about the chance to try my own methods of doing the job

- ◯ Very Dissatisfied
- ◯ Dissatisfied
- ◯ Neither Dissatisfied nor Satisfied
- ◯ Satisfied
- ◯ Very Satisfied

29. On my present job, this is how I feel about the working conditions

- ◯ Very Dissatisfied
- ◯ Dissatisfied
- ◯ Neither Dissatisfied nor Satisfied
- ◯ Satisfied
- ◯ Very Satisfied

30. On my present job, this is how I feel about the way my co-workers get along with each other

- ◯ Very Dissatisfied
- ◯ Dissatisfied
- ◯ Neither Dissatisfied nor Satisfied
- ◯ Satisfied
- ◯ Very Satisfied

31. On my present job, this is how I feel about the praise I get for doing a good job

- ◯ Very Dissatisfied
- ◯ Dissatisfied
- ◯ Neither Dissatisfied nor Satisfied
- ◯ Satisfied
- ◯ Very Satisfied

32. On my present job, this is how I feel about the feeling of accomplishment I get from the job

- ◯ Very Dissatisfied
- ◯ Dissatisfied
- ◯ Neither Dissatisfied nor Satisfied
- ◯ Satisfied
- ◯ Very Satisfied

Self-Efficacy

This section of the questionnaire is designed to help us gain a better understanding of the kinds of things that create challenges for principals in their school activities.

Directions: Please indicate your opinion about each of the questions below by selecting one of the nine responses beneath each question. The scale of responses ranges from "None at all" (1) to "A Great Deal" (9), with "Some Degree" (5) representing the mid-point between these low and high extremes. You may choose any of the nine possible responses, since each represents a degree on the continuum. Your answers are confidential.

Please respond to each of the questions by considering the combination of your current ability, resources, and opportunity to do each of the following in your present position.

Tschannen-Moran, M. & Gareis, C. R. (2004). Principals' sense of efficacy: Assessing a promising construct. *Journal of Educational Administration*, 42(5), 573-585.

33. In your current role as principal, to what extent can you facilitate student learning in your school?

None at All		Very Little		Some Degree		Quite a Bit		A Great Deal
○	○	○	○	○	○	○	○	○

34. In your current role as principal, to what extent can you generate enthusiasm for a shared vision for the school?

None at All		Very Little		Some Degree		Quite a Bit		A Great Deal
○	○	○	○	○	○	○	○	○

35. In your current role as principal, to what extent can you handle the time demands of the job?

None at All		Very Little		Some Degree		Quite a Bit		A Great Deal
○	○	○	○	○	○	○	○	○

36. In your current role as principal, to what extent can you manage change in your school?

None at All		Very Little		Some Degree		Quite a Bit		A Great Deal
○	○	○	○	○	○	○	○	○

37. In your current role as principal, to what extent can you promote school spirit among a large majority of the student population?

None at All		Very Little		Some Degree		Quite a Bit		A Great Deal
○	○	○	○	○	○	○	○	○

38. In your current role as principal, to what extent can you create a positive learning environment in your school?

None at All		Very Little		Some Degree		Quite a Bit		A Great Deal
○	○	○	○	○	○	○	○	○

39. In your current role as principal, to what extent can you raise student achievement on standardized tests?

None at All		Very Little		Some Degree		Quite a Bit		A Great Deal
○	○	○	○	○	○	○	○	○

40. In your current role as principal, to what extent can you promote a positive image of your school with the media?

None at All		Very Little		Some Degree		Quite a Bit		A Great Deal
○	○	○	○	○	○	○	○	○

41. In your current role as principal, to what extent can you motivate teachers?

None at All		Very Little		Some Degree		Quite a Bit		A Great Deal
○	○	○	○	○	○	○	○	○

42. In your current role as principal, to what extent can you promote the prevailing values of the community in your school?

None at All		Very Little		Some Degree		Quite a Bit		A Great Deal
○	○	○	○	○	○	○	○	○

43. In your current role as principal, to what extent can you maintain control of your own daily schedule?

None at All		Very Little		Some Degree		Quite a Bit		A Great Deal
○	○	○	○	○	○	○	○	○

44. In your current role as principal, to what extent can you shape the operational policies and procedures that are necessary to manage your school?

None at All		Very Little		Some Degree		Quite a Bit		A Great Deal
○	○	○	○	○	○	○	○	○

45. In your current role as principal, to what extent can you handle effectively the discipline of students in your school?

None at All		Very Little		Some Degree		Quite a Bit		A Great Deal
○	○	○	○	○	○	○	○	○

46. In your current role as principal, to what extent can you promote acceptable behavior among students?

None at All		Very Little		Some Degree		Quite a Bit		A Great Deal
○	○	○	○	○	○	○	○	○

47. In your current role as principal, to what extent can you handle the paperwork required of the job?

None at All		Very Little		Some Degree		Quite a Bit		A Great Deal
○	○	○	○	○	○	○	○	○

48. In your current role as principal, to what extent can you promote ethical behavior among school personnel?

None at All		Very Little		Some Degree		Quite a Bit		A Great Deal
○	○	○	○	○	○	○	○	○

49. In your current role as principal, to what extent can you cope with the stress of the job?

None at All		Very Little		Some Degree		Quite a Bit		A Great Deal
○	○	○	○	○	○	○	○	○

50. In your current role as principal, to what extent can you prioritize among competing demands of the job?

None at All		Very Little		Some Degree		Quite a Bit		A Great Deal
○	○	○	○	○	○	○	○	○

Appendix B

Permission Letter for PSES

William & Mary
School of Education

MEGAN TSCHANNEN-MORAN, PHD
PROFESSOR OF EDUCATIONAL LEADERSHIP

November 6, 2016

Kerry,

You have my permission to use the Principals' Sense of Efficacy Scale, which I developed with Chris Gareis, in your research. The best citation to use is:

Tschannen-Moran, M. & Gareis, C. (2004). Principals' sense of efficacy: Assessing a promising construct. *Journal of Educational Administration*, 42, 573-585.

You can find a copy of these measures and scoring directions on my web site at http://wmpeople.wm.edu/site/page/mxtsch . I will also attach directions you can follow to access my password protected web site, where you can find the supporting references for these measures as well as other articles I have written on this and related topics.

I would love to receive a brief summary of your results when you finish.

All the best,

Megan Tschannen-Moran
The College of William and Mary
School of Education

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