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# Principal Self-Efficacy and the Teacher Principal Evaluation Project

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Principal Self-Efficacy and the Teacher Principal Evaluation Project

by

John A. Polm, Jr.

Dissertation

Presented to the Faculty of the  
Graduate School of Education at  
Seattle Pacific University

In Partial Fulfillment of the Requirements for the  
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Seattle Pacific University

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John A. Polm, Jr.

A dissertation submitted in partial fulfillment

of the requirement of the degree of

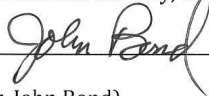
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Program Authorized to Offer Degree SCHOOL OF EDUCATION

Date 

June 16, 2016

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June 16, 2016

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Seattle Pacific University

Abstract

Principal Self-Efficacy and the Teacher Principal Evaluation Project

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Cognitive psychologist Albert Bandura has made significant contributions to psychology and education since the 1950s. His social learning theory continues to have considerable influence in the study of human agency and in the related study of self-efficacy. A recent development in the study of self-efficacy concerns the perceived self-efficacy of school leaders, particularly of school principals. Researchers have developed instruments to measure this construct that identifies supportive elements associated with positive self-efficacy perceptions of principals. This study measured the perceived self-efficacy of principals using the Principal Self-Efficacy Scale (PSES). The study also measured the correlation between the principal's level of self-efficacy score, and the belief that they will implement TPEP successfully in their schools. This study found an overwhelming majority of principals (91 percent) believed they would successfully implement TPEP. There was a small correlation between the PSES score and their belief that they can successfully implement TPEP in their school ( $r = .222, n = 336, p < .001$ ). Implications provide additional validation to the strength of the PSES as an instrument as well as Bandura's Triadic Reciprocal Causation theory applied to principal self-efficacy. Implications also may help inform the educational community about the correlation of

principal self-efficacy to enact significant change and the importance of measuring and developing higher self-efficacy in leaders.

KEYWORDS: *Albert Bandura, social cognitive theory, self-efficacy, collective efficacy, leadership efficacy, principal self-efficacy, PSES, student achievement, threat rigidity, and TPEP.*

## **Chapter One**

### **Introduction**

#### **Historical Context**

The expectations of school principals have changed over time with recent developments requiring greater skills in change implementation and instructional leadership. Principals with strong self-efficacy in their ability to implement change and lead instructional improvement may best meet these expectations. Some background on the history of the principalship would aid in understanding the context of the expectations of modern principals and the construct of principal self-efficacy, but this paper does not allow for delving deeply into that topic. For the purposes of historical context, Kafka (2009) described the development of the modern principal and stated: “[early 20<sup>th</sup> century] Principals gained local authority and increased their prestige by working to professionalize the Principalship” (p. 322). The increase of prestige and local authority led to professional associations influencing state legislation and greater certification requirements for principals. Many of these developments were taking place in the early part of the 20<sup>th</sup> century in what Kafka (2009) called the “changing expectations of the school principal” (p. 325). Today’s high accountability educational landscape has further defined the principal’s performance in terms of student academic achievement on high-stakes assessments. This high pressure on performance amplifies the importance of the principal’s sense of efficacy in meeting the expectations and demands of the position (Tschannen-Moran & Gareis, 2004). Although a direct causal link between principal instructional leadership and student achievement has not been made, there is evidence that effective principals help create conditions where strong

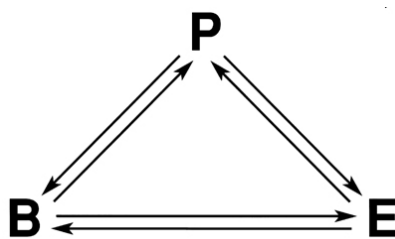


achievement is more likely (Leithwood & Riehl, 2003). This study purposed to measure principal self-efficacy and determine any significant relationship between principal self-efficacy and perceptions regarding the successful implementation of the Teacher Principal Evaluation Project (TPEP).

### **Theoretical Basis of the Study**

Motivation and agency are complex in nature, but important constructs in studying and understanding human behavior. Albert Bandura has spent much of his academic life conceptualizing social learning theory and operationalizing the construct of self-efficacy. Bandura (1977) referred to social learning as a “reciprocal interaction of personal and environmental determinants” (pp. 11-12). Bandura’s theory posited the idea that a person’s level of motivation, emotions, and actions are based largely on their belief rather than on what is objectively true, and that people have a “causative capability” that enables personal agency (Bandura, 1997, p. 2). Cognitive theories about learning are proposed in an effort to explain human behavior and related learning (Bandura, 1977; Richey, Klein, & Tracey, 2011). Bandura (1997) stated, “With appropriate learning experiences, almost any activity...can become imbued with consuming personal significance” (p. 219). This personal significance may be associated with the self-efficacy of any person relative to any task. Further, a person’s thinking about their proficiency for successful task completion forms a relationship between the three major classes of determinants Bandura explains in “triadic reciprocal causation” (Bandura, 1997). Bandura (1971, 1977, 1986, 1995, 1997) explains social learning theory as a continuous reciprocal reaction between behavior and its controlling conditions, and he emphasizes the roles played by vicarious, symbolic, and self-regulatory processes. Figure 1 represents

the reciprocal relationship of the behavior, personal factors and external environment in Bandura's model.



*Figure 1.* Bandura's Triadic Reciprocal Causation

The relationships between the three major classes of determinants in triadic reciprocal causation where *B* represents behavior; *P* the internal personal factors in the form of cognitive, affective and biological events; and *E* the external environment (Bandura, 1986, 1997, 2009).

A person's agency operates within this framework of influences where "people are both producers and products of social systems" (Bandura, 1997, p. 6). Or simply, a person makes judgments of how well they will be able to perform tasks at least partially based on outcomes they expect their actions to produce (Bandura, 2009). The basic assumption of social cognitive theory is that learners draw out information from observing the behaviors of others, and then make decisions about which of these behaviors to accept and perform. Their self-efficacy develops through a combination of mastery, vicarious, and emotional and physiological experiences (Bandura, 1997; Richey et al., 2011). Hence, the influence one has on their own sense of efficacy is an important ingredient in the determination of their beliefs and actions and as linked to distinct realms of functioning that include motivation (Bandura 1997, 2009).

### **Principal Self-Efficacy**

School principals hold positions of particular influence in terms of school

structure and leadership. Yet principals are in essence mid-level administrators who operate between the central office and the teachers who actually implement policies at the ground level. Principals are uniquely responsible to and influenced by district officials, policymakers, parents, students, teachers, and community members (Kafka, 2009). These influences represent the external determinants that are part of Bandura's triadic reciprocal causation framework, which influence a principal's behavior, which in turn influences their self-efficacy (Bandura, 1997). Consequently, a principal's self-efficacy, and the influences on that efficacy belief is an important construct. Social cognitive theory provides a theoretical framework for understanding how strength of self-efficacy beliefs and outcome expectancies interact to produce behavior outcomes (Smith, Guarino, Strom & Adams, 2006). TPEP, as a new policy, is considered an external determinant in Bandura's framework and the principal's perception of their ability to successfully implement TPEP is identified as a variable in this study.

**Measurable construct.** Several researchers have investigated this strength of efficacy as a measurable construct with promising results (Tschannen-Moran & Gareis, 2005; Smith et al., 2006). Although this study may not represent all literature, the canon of shared knowledge on principal self-efficacy is represented through the review of research through studies by leading researchers using similar psychometric instruments. This research has centered on instructional leadership, management aspects, and moral leadership (Autry, 2010; Tschannen-Moran, 2005). A principal's self-efficacy is influenced by a number of factors, many of which are related to the three broad categories identified by research and noted in the factors that emerged in the Principal Self-Efficacy Scale (PSES) as developed by Tschannen-Moran and Gareis (2004, 2005).

That is, a principal's self-efficacy can be measured by the PSES survey and subsequently correlated to the principal's belief that he or she will successfully implement TPEP in 2015-2106, as required by Washington State Law (Revised Code of Washington 28A.405.100).

The implications for practice may be applied to the implementation of the Teacher Principal Evaluation Project (TPEP) in Washington State. Further, thoughtful preparation of future administrators and development of active administrators should include strong self-efficacy paradigm in that professional development. Attention to the construct of self-efficacy may help to improve implementation of TPEP and help provide stronger instructional leadership for public schools.

**Principal self-efficacy and change implementation.** Principals work directly in the schools, and need the support of the district, the community, and the teachers in order to enact change. For principals, one part of this change relates to the implementation of state or federal mandates. In Washington State, the implementation of the Teacher Principal Evaluation Project (TPEP) and the related instructional framework is a complicated and particularly challenging change initiative for principals. Successful implementation depends, at least partially, on the self-efficacy of the building principal. As stated previously, Bandura (1997) hypothesized that self-efficacy is formed through mastery experience, vicarious experience, social persuasions, and emotional and physiological states. The principal who develops the agency to control or affect change possesses a trait that will help predict future success. Self-efficacy in the context of the school principal is important because high self-efficacy is predictive of performance (Pajares & Kranzler, 1995). Since TPEP is a significant change initiative, then its success

rests largely on the principal to lead. Subsequently, Bandura's theory may prove valuable in studying influences on their self-efficacy in that process. Bandura (1997) wrote: "Perceived self-efficacy refers to beliefs in one's capabilities to organize and execute the courses of action required to produce given attainments" (p. 3). The TPEP implementation may continue to be a difficult, even political task. Principals with strong self-efficacy may be more likely to successfully navigate this difficult road, where those with low self-efficacy may avoid this difficult work (Schunk & Richardson, 2011). In order to successfully implement TPEP, the principal must have strong beliefs about their ability to successfully enact change.

### **TPEP and the Instructional Frameworks**

The TPEP theory of action is to improve student achievement through improved teaching and learning (Miller, 2014a). TPEP requires one of three instructional frameworks, one of two leadership frameworks, and the final evaluation score that includes student growth measures (Miller, 2014c). This scoring system is a particularly new reform for certified teacher and principal evaluations. The methodology requires a four-tier system in eight categories resulting in a final score up to 32 points (Miller, 2014d). The concept of scores compared to the previous non-scored binary system (satisfactory or unsatisfactory), which adds a new level of evidenced-based detail to the evaluation process.

An actual analysis of the instructional frameworks is not in the scope of this investigation. The three State approved frameworks for teaching are: Charlotte Danielson's Framework for Teaching, the Marzano Teacher Evaluation Model, and the Center for Educational Leadership (CEL 5D+) Teacher Evaluation Rubric. In addition,

the State has approved the Marzano School Leadership Evaluation Model and the AWSP Leadership Framework for principal evaluations (Miller, 2014c). The new model and three approved frameworks apply to classroom teachers while the two leadership models apply to principals and assistant principals (Miller, 2014e).

### **TPEP Initiative, Expertise and Self-Efficacy**

The theoretical construct explored in the literature and applied to the TPEP initiative requires a level of expertise that may not have been historically required of principals. The three instructional frameworks all require leaders to have content knowledge, instructional expertise, develop a trained observational eye, be equipped to provide effective constructive feedback, be effective at coaching adult learners, and be committed to a reciprocal relationship with teachers (Fink & Markolt, 2011). For example, a closer look at one of the approved frameworks, the Center for Educational Leadership Framework (CEL 5D+), reveals a model that makes a case for the need for experts as leaders. Its authors state several times “it takes expertise to make expertise” (Fink & Markolt, 2011). This mantra seems especially demanding for secondary principals, as they must have deep content knowledge in areas like world languages, music, chemistry, and mathematics.

The new TPEP expectations on principals also require an ability and motivation to provide a higher level of descriptive feedback based on knowledge of an instructional framework. Learning the language of the framework can create a climate of shared understanding, which is important (Fink & Markolt, 2011). However, this concept of expertise around the task of effective instructional leadership also creates a need for reliable professional development, opportunities for practice, and the ability to become

the expert. Studies support the conclusion that self-efficacy has a relationship to the likelihood principals will perform the functions required; and self-efficacy will play a vital role in the operational functioning of the school principal and their motivation to take on the challenging tasks required by TPEP (McCormick & Martinko, 2004; Pajares & Kranzler, 1995; Smith et al., 2006).

### **The Problem: Change and Principal Self-Efficacy**

According to Leithwood, Strauss & Anderson, (2007), “school leader efficacy is a key link in the chain joining successful district leadership with student learning” (p. 763). That is, the self-efficaciousness a principal develops in his or her leadership ability can influence his or her capacity to make change in the school environment. The principal is viewed as a key change agent at the school level, largely by raising expectations for both teachers and students. This change is only possible when an entire school or district moves to accomplish goals in a systematic way. The ability of a school principal to influence people and processes becomes a foundational expectation of the change process and is influenced by self-efficacy. This construct is well researched within social cognitive theory; however there has been limited research available that measures principal self-efficacy (Tschannen-Moran & Gareis, 2004).

### **Social Cognitive Theory, Self-Efficacy and TPEP**

The implementation of TPEP presents a large-scale reform of a long-standing evaluation system in Washington State. The TPEP theory to improve teaching and learning through this reform rests on the ability of principals and other school leaders to successfully implement the change. Tschannen-Moran and Gareis (2004) stated, “Since self-efficacy beliefs are context-specific, people do not feel equally efficacious for all

situations” (p. 573). These findings are rooted in Bandura’s (1977) predictive self-efficacy expectations where individuals are more likely to complete a given task as a function of the strength of their efficacy. Research reveals that principals with higher self-efficacy have been found to be more persistent in pursuing their goals (Tschannen-Moran & Gareis, 2005). One may argue the successful implementation of TPEP is at least partially dependent on the self-efficacy of the local school principal based on self-efficacy beliefs and outcome expectancies (Bandura, 1997).

### **Purpose and Research Questions**

The purpose of the research study was to measure the self-efficacy of public school principals in Washington State and to determine to what degree principals believed they would successfully implement TPEP. The study examined the degree principals’ PSES score correlated to their belief that they will successfully implement TPEP. The study also examined the relationship between personal and demographic variables of the principal or school and their self-efficacy beliefs. Finally, the study provided continued validation of the PSES as an instrument.

Research questions were:

1. Do Washington State principals believe they will be successful in implementing TPEP in their school?
2. Does the principal’s level of self-efficacy (PSES score) have a significant relationship to their belief that they will successfully implement Teacher Principal Evaluation Project (TPEP) in their school?
3. Do principal personal or school demographic variables correlate to the level of principal self-efficacy as measured by the PSES?



- a. Does the total years as a head principal at their present school correlate to level of principal self-efficacy?
- b. Does the gender of the principal correlate to level of principal self-efficacy?
- c. Does Title I, or non-Title I, designation correlate to the level of principal self-efficacy?
- d. Does Free or Reduced Meal (FRM) rate correlate to the level of principal self-efficacy?

### **The Hypotheses**

In this study, it was expected that five findings would emerge. These were expressed as predictions and null hypotheses. First, it was expected that the overall percentage of principals who believed they will successfully implement the new Teacher Principal Evaluation Project (TPEP) in their school by responding “yes” would be less than 50%. This prediction was based on the researcher’s personal knowledge of the TPEP system and conversations with principals currently working within the system. Although principals may generally support TPEP, the additional demands on their time and the increased expertise needed presented TPEP as a difficult change initiative, which was supported by research as reviewed for this study. Based on Bandura’s Triadic Reciprocal Causation theory, it was expected that the principals responding “yes” to question would have a higher mean PSES score than principals responding “no” (McCullers, 2009). Stated as null hypothesis (H01): There will be no statistical difference in the mean PSES score of principals responding “yes” or “no”.

Second, it was expected that principals with a greater number of total years as a

head principal at their present school would have higher self-efficacy (PSES scores) than the those with less experience as a principal in their school (Autrey, 2011; McCullers, 2009; Oplatka, 2007). More experienced principals have shown to have higher self-efficacy scores in some studies. The researcher predicted that the PSES scores would positively and significantly correlate to the level of experience. Stated as the second null hypothesis (H02): There will be no correlation between the PSES experience as a head principal at their present school.

Third, it is expected that male principals would report higher self-efficacy (PSES scores) than female principals. Some studies have found male principals to report higher self-efficacy (Smith et al., 2006; Tschannen-Moran & Gareis, 2005). The researcher predicted that the PSES scores would positively and significantly correlate to the gender of principals with male school principals revealing higher self-efficacy scores. Stated as the third null hypothesis (H03): There is no difference in the self-efficacy (PSES) scores of principals relative to the principal's gender.

Fourth, it is expected that school principals working at Title I designated schools in "improvement status" will report a lower self-efficacy (PSES) score than principals of non-Title I schools (Daly, Der-Martirosian, Ong-Dean, Park & Wishard-Guerra, 2011; McCullers, 2010). The principals of schools experiencing NCLB sanctions may have lower outcome expectancy, which may impact their reported self-efficacy score and perhaps ultimately result in threat-rigidity (Daly et al., 2011; Smith et al., 2006). The researcher predicted the PSES scores would positive and significantly correlate to the school principals working at Title I designated schools in "improvement status" with these principals reporting lower self-efficacy scores. Stated as a fourth null hypothesis

(HO4): There will be no difference in the self-efficacy (PSES) scores of principals relative to their school's Title I "improvement status" (Daly et al., 2011; McCullers, 2009).

Fifth, it is expected that principals working at schools with higher FRM rates would report a higher self-efficacy (PSES) score (Daly et al., 2011; Smith et al., 2006; Tschannen-Moran & Gareis, 2005). The researcher predicted that the PSES scores would positively and significantly correlate to the FRM rate of the school at which the principal served. Stated as the second null hypothesis (H02): There will be no correlation between the PSES score and the FRM rate of the school at which the principal serves.

The personal and demographic factors of gender, experience as principal of their current school, the school's Title I improvement status, and the Free and Reduced Meal rate were selected for correlation study because these were found in some of the literature to have significant bivariate correlations or were reported in regression analyses as having an individual contributions to principal self-efficacy (Smith et al., 2006; Tschannen-Moran & Gareis, 2005). It should be noted that the Title I improvement status at a school is as a result of the school not making Adequate Yearly Progress (AYP) in one or more of the federally required categories, thus moving the school into "improvement status" (OSPI, 2015a).

These hypotheses were intended to test correlations between variables that may help to test the strength of the PSES as an instrument, help better understand if TPEP is a variable that is perceived by principals an external determinant within the Triadic Reciprocal Causation model of Bandura, and perhaps help understand if TPEP is perceived by principals as an unreasonable change initiative in Washington State. The

theory that this study is based upon predicted that principals would report a higher self-efficacy if they were confident they could implement change initiatives; in this case the change initiative of interest is TPEP. As reported in Chapter Four, the theory is supported by the results of this study. However, initially the researcher posited that it might be possible for a very confident principal to believe that the TPEP initiative is an unreasonable initiative and respond “no”. A principal may believe the initiative will not be successfully implemented yet report a high self-efficacy score. If enough principals would have this attribute and belief, then the overall mean self-efficacy score may not have been statistically different for those who respond yes to those who respond no on the question about implementation of TPEP. This result may have called into question the reasonableness of the TPEP initiative or the effectiveness of the PSES as an instrument. However, the results did reveal a small positive correlation, therefore the theory supports the relationship between TPEP and self-efficacy as well as provides additional validation of the PSES instrument to measure principal self-efficacy.

### **Glossary of Terms**

*Instructional Framework:* A common language shared by everyone in a school district which aligned to the eight evaluation criteria in Washington State law. There are three instructional frameworks approved by the Office of Public Instruction for use in teacher evaluations.

*NCLB:* The federal “No Child Left Behind” legislation passed in 2001 as the name of the reauthorized Elementary and Secondary Education Act. This federal law requires states to comply with federal testing requirements in order to qualify for a variety of federal funding resources.

*Teacher Individual Efficacy:* The level a teacher belief in their ability to effectively perform teaching tasks, which is influenced by the support of principals, policies in schools, and control of their instruction (Ware & Kitsantas, 2007).

*Collective Efficacy:* The level of group competence related to task completion, which has been linked to student achievement (Bandura, 1995; Goddard, Hoy, & Hoy, 2004).

*SES:* Socio-economic status of a school based on the percentage of students qualifying for free or reduced meals.

*Self-Efficacy:* The level of belief a person has that enables their agency to achieve a task. That is, a judgment a person makes about how well they will perform a particular task (Bandura, 1997).

*Social Cognitive Theory:* The theory that learners draw out information from observing the behavior of others and then make decisions about which behaviors to accept and perform (Bandura, 1971, 1986).

*Threat-Rigidity:* This refers to an individual and organizational constriction of information, collapse of control, inflexibility of response, and retreat to well established processes resulting from external perceived threats (Daly et al., 2011).

*TPEP:* The Teacher and Principal Evaluation Project is a shift in the evaluation system and criteria used in Washington State. The system includes eight criteria and the use of one of three instructional frameworks applied to the criteria. The system produces a score in the eight criteria areas, which has implications for teacher retention, and which include student growth measures. Teacher scores are collected and reported by district (Miller, 2014a). TPEP is a change initiative related to federal NCLB requirements and

part of Washington State legislation and law RCW28A.405.100 (Miller, 2014b; Revised Code of Washington 28A.405.100).

### **Assumptions**

Assumptions made during the course of this study included:

1. Principals of public schools will be able to access a Web-based survey instrument;
2. Principals would respond honestly and accurately to the Web-based survey instrument;
3. Principals would have knowledge of TPEP and its requirements for successful implementation;
4. Principal self-efficacy beliefs could be accurately assessed using a Web-based survey instrument.

### **Population and Sample**

The population of this study initially included all public school principals in Washington whose emails were publicly available. The eventual sample was the number of principals who responded to the anonymous Web-based survey. Based on response rates for Web-based surveys, Fowler (2009) wrote that the rate of response could vary significantly. For purposes of this proposal, an estimated response rate of 30% might have produced a sample of approximately 600 respondents for this study (Senate Ways and Means, 2012). However, the eventual population of 1,280 meant that a 30% response rate would produce 384 respondents, which would be similar to other online survey studies (Fowler, 2009). In this study, the response rate ended up at 26.3%.

## Statistical Procedures

The study used the following statistical procedures:

1. The PSES score for all principals was calculated as an overall mean score. The PSES for principals who respond yes or no as to whether they perceive that they would successfully implement TPEP in their school was calculated as a mean score and used to reflect principal beliefs that TPEP will be successfully implemented in Washington State.
2. A Pearson product-moment analysis was used to test for any correlation between self-efficacy and the belief and degree to which principals believed they would successfully implement the TPEP system in their own school.
3. If correlations would have been found in the personal and environmental variables, then ordinal logistic regression would have been used to determine the extent to which the environmental variable of TPEP implementation affected self-efficacy beliefs of principals.
4. Descriptive statistics were used to examine self-efficacy beliefs of principals, with personal variables of years of experience as a principal in their current school and gender, and with school demographic variables to include Title I designation and “in improvement” status and Free or Reduced Meal rates.
5. To determine the extent to which Washington principals believed they possess the instructional and leadership efficacy related to TPEP implementation, an independent samples t-test was used to determine any

statistically significant mean difference in scores from survey questions.

### **Significance of the Study**

This study used the PSES instrument developed by Tschannen-Moran and Gareis (2004) in a new context, which adds to a body of knowledge about this scale. This study may provide substantive significance by investigating how social cognitive theory explains principal motivation related to the implementation of the new Teacher and Principal Evaluation Project, which is related of the state and federal reform efforts. The study also used social cognitive theory to account for variations in principal self-efficacy belief and in leadership behaviors related to the likelihood that principals believed they would successfully implement TPEP in their schools. In addition, the study may provide potentially useful information in understanding how social cognitive theory may be applied to the specific self-efficacy environment of school principals faced with challenging initiatives with high-stakes consequences. The study may also help demonstrate that social cognitive theory can be used to provide potentially useful information for educational policy development and refinement related to TPEP implementation.

This study is unlikely to provide direct theoretical significance, however it may help identify elements of principal self-efficacy and TPEP that merit further research. Social cognitive theory and the self-efficacy construct may help inform research in school leadership to explain why some principals are more confident in change implementation. This could extend theoretical knowledge about principal self-efficacy as related to Bandura's Triadic Reciprocal Causation model (Bandura, 1986). The study may also help identify further research needed in order to better understand the relationship between



PSES and school culture, teacher efficacy, collective efficacy and eventually teacher effectiveness and student achievement. The study may also identify some external determinants that may have stronger or weaker correlations and that merit further research.

The practical significance of the study helps to build a base knowledge of principal self-efficacy related to principal implementation of a challenging initiative in Washington State. As more knowledge is developed, it may be used to provide potentially useful information for policy development and refinement. The policy implication is both at the governmental level at which the evaluation system is legislated and codified and also the local level where details are bargained and implemented. This knowledge may also provide information to refine principal certification and licensure standards and practices especially as part of university pre-service programs. This knowledge might also be useful in identifying viable principal candidates, matching candidates to jobs, and recognizing principals who could serve as mentors at the state and local levels.

### **Limitations**

The limitations of this study were as follows:

1. This was not a causal study, and no attempt was made to determine the degree or direction of causality for any variable or effect. The study was limited to descriptive statistics and correlational statistical tests.
2. This study included only responding public school principals in one state and is isolated to one that state's evaluation system. The state is in the Pacific Northwest and may be unique due to geographical cultural effects.

This limits the generalization of the findings to other geographical areas.

3. School data was reported by the principals who chose to respond to the survey, and was not verified by the researcher. The truthfulness of the respondents is assumed but not verified.
4. Successful implementation of TPEP is not clearly defined terminology since districts vary in their selected framework and local bargaining agreements. Successful implementation is a perception of responding principals.

### **Summary**

Chapter One described the new Teacher Principal Evaluation Project (TPEP) and expectation of principals to implement a new four-tiered system for teacher and assistant principal evaluations. This new system generates a score for teachers based on eight criteria, which are informed by one of the three approved instructional frameworks and the accompanying evaluation rubrics. The scoring includes student growth measures, which account for part of the teacher's evaluation. TPEP has been legislated and codified and is to be fully implemented in all public schools in the 2015-2016 school year. The impetus for a new evaluation system is grounded in the rise of federal and state accountability measures for schools. The No Child Left Behind Act of 2001 introduced powerful new accountability to public schools, changing the work and expectations of school principals. The new Elementary and Secondary Education Act called Every Student Succeeds Act, was approved in 2015 but has yet to be implemented. The impact of the new federal law on teacher and principal evaluations has yet to be determined. Since Washington State has codified the law, it is certainly with us for a while. The new

evaluation system has increased the emphasis on evidence gathering, which requires more time observing teachers and scripting lessons. The new framework and required expertise, additional time in class, and introduction of student growth measures into the evaluation system applies unprecedented pressures on principal performance, especially in the domain of instructional leadership. These new expectations place the school principal's motivation and leadership as central to the successful implementation of TPEP. The construct of self-efficacy is useful as a theoretical basis for the investigation of principal motivation and leadership.

## **Chapter Two**

### **Literature Review**

#### **Introduction**

As described in Chapter One, TPEP has created unprecedented expectations on public school teachers and the principals who lead them. All public schools must implement the new evaluation system and report scores on teachers and principals (Revised Code of Washington 28A.405.100). The evaluation system is part of an overall plan to increase the accountability of teachers and principals for student outcomes on annual academic achievement measures. The new system introduces new instructional frameworks, new evidence-based observation protocols, and new accountability for failure to meet proficiency standards. The time requirements are especially challenging for principals, as they are responsible to document evidence of teacher performance in a number of domains. The additional time and expertise required to implement the new evaluation system introduces a challenging task for school principals. Chapter Two will discuss how social cognitive theory allows for principal motivation and leadership behavior to be investigated using the construct of self-efficacy beliefs. This literature review will include studies related to principal self-efficacy, leadership self-efficacy, teacher individual self-efficacy and collective faculty self-efficacy. In addition, this review will examine the development of instruments designed to measure principal-self efficacy. This review of literature was used to inform study of the original research questions in this study:

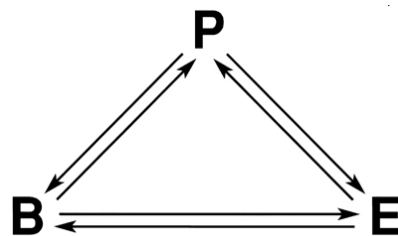
1. Do principals believe they will be successful in implementing TPEP in their school?

2. Does the principal's level of self-efficacy (PSES score) have a significant relationship to their belief that they will successfully implement the new Teacher Principal Evaluation Project (TPEP) in their own school?
3. Do principal personal or district demographic variables correlate to the level of principal self-efficacy as measured by the PSES?
  - a. Does the total years as a head principal at their present school correlate to level of principal self-efficacy?
  - b. Does the gender of the principal correlate to level of principal self-efficacy?
  - c. Does Title I "in improvement status", or non-Title I, designation correlate to the level of principal self-efficacy?
  - d. Does Free or Reduced Meal (FRM) rate correlate to the level of principal self-efficacy?

### **Construct of Self-Efficacy**

Motivation and agency to enact change are complex issues, and important components of social cognitive theory. A key influence on motivation is self-efficacy, which was first identified as a construct by Albert Bandura (1977) who referred to social learning as a "reciprocal interaction of personal and environmental determinants" (pp. 11-12). Bandura's theory posited the idea that a person's level of motivation, emotions, and actions are based largely on their belief rather than on what is objectively true, and that people have a "causative capability" that enables personal agency (Bandura, 1997, p. 2). He studied the construct over many years, and he later noted that self-efficacy beliefs concern "one's capabilities to organize and execute the courses of action required to

manage prospective situations” (Bandura, 1995, p. 2). This social cognitive view of human behavior is more sophisticated than earlier behaviorist views. Bandura (1977) viewed behavior as motivated by the aggregate consequences of behavior and influenced by a reciprocal process or interaction of beliefs or expectancies and external influences. He emphasized the roles played by vicarious, symbolic, and self-regulatory processes, and he represents the reciprocal relationship of the behavior, personal factors and external environment in his model (Bandura, 1977).



*Figure 1.* Bandura’s Triadic Reciprocal Causation

It is important to note that self-efficacy differs from other perceptions of self, such as self-confidence, self-worth, or self-esteem in that self-efficacy is related to a specific task or skill of a person (Bandura, 1997; Goddard, et al., 2004). However, Bandura (1997) stated that even unfounded or faulty beliefs about self-efficacy could affect behavior as “actions are based more on what they believe than on what is objectively true” (p. 2). This belief in their causal capability influences their agency to undertake a difficult task. This is a fundamental assumption of social cognitive theory, that choices individuals make are an exercise of agency, which is how people establish control of their own lives (Bandura, 1997; Goddard, et al., 2004). As stated previously, there are four sources that inform self-efficacy, which all involve cognition. These are mastery experiences, vicarious experiences, social persuasions, and affective states (Bandura, 1986). These sources, with their reciprocal reflection and self-regulation, create what

Bandura (1997) referred to as individuals who “are simultaneously agent and object” (p. 5). The complex cognitive process individuals experience through the social cognitive framework results in motivation for most actions (Bandura, 1977). Practical application of this reciprocal process includes study of agency in the work place.

Research shows a strong positive correlation between self-efficacy and work performance. In their meta-analysis of 114 empirical studies, Stajkovic and Luthans (1998) found that 28% of performance improvement was attributed to an employee’s task-specific performance. Their findings support the theory that “individuals who perceive themselves as highly efficacious will activate sufficient effort which, if well executed, will produce successful outcomes” (p. 73). These successful outcomes will, in turn, influence perceptions of additional competence thus perpetuating the cycle of causation. Conversely, individuals who perceive less competence will also perceive lower self-efficacy. These individuals are more likely to be less persistent and develop or retain self-debilitating attributes toward difficult tasks (Bandura, 1997; Goddard, et al., 2004; Stajkovic & Luthans, 1998).

**Principal, teacher and collective efficacy.** Although researchers have tried to establish causal links between educational leadership and student achievement, the direct links have been weak at best (Ross & Gray, 2006). However, many researchers have investigated principal leadership and correlations to student achievement through the principal’s influence on school culture and a sense of efficacy in teachers and the school faculty. In their article on educational leadership, Witzers, Bosker, and Kruger (2003) stated, “...studies demonstrate that educational leadership is related to school organization and culture as well as to teacher behavior and classroom practices and these

factors are related in turn to student achievement” (p. 418), consequently this study will focus on principal self-efficacy to implement change in the form of the new evaluation system, TPEP. This study will not investigate the theory that TPEP will improve student achievement, but only that the higher self-efficacy of principals is linked to a higher likelihood of successful TPEP implementation in schools. The implication is that the principal’s higher self-efficacy in turn correlates to the higher organizational efficacy Bandura (1997) referred to as “G school efficacy” (p. 243-258). This correlation may then increase the likelihood that TPEP is implemented successfully in schools where higher self-efficacious principals work.

**Teacher efficacy and student achievement.** Student academic success has been associated with teacher and collective school efficacy (Bandura, 1997; Goddard, et al., 2000; Goddard, 2001; Ross & Gray, 2006). Goddard et al. (2000) researched an association between teacher individual efficacy, collective efficacy and student achievement. They found “the theoretical elements of collective teacher efficacy – group competence and task analysis – were highly related in schools” (p. 501). Ross and Gray (2006) sought to determine if holding principals accountable for student achievement is defensible. These researchers provided evidence that “principals have such influence through their effect on teacher commitment and collective teacher efficacy” (p. 813). They posited that transformational leadership of a principal influences the teacher commitment to organizational tasks by persuading them to improve through “supervision and staff development processes” (p. 814). Finally, Ware and Kitsantas (2007) wrote, “[Teacher] commitment is enhanced when teachers believe that they have efficacy to (a) enlist the support of their principals, (b) influence policies at their schools, and (c) control



their instruction.” (p. 309). The research supports teacher efficacy as linked very closely to student achievement, and principal efficacy to teacher and collective efficacy. The combination of these efficacy links contributes to a schools’ culture toward student achievement. Positive principal leadership efficacy is supported by empirical studies as an important ingredient in the collective efficacy of a school faculty (Bandura, 1997; Goddard, et al., 2000; McCormick, 2001). The literature supports leadership self-efficacy as a construct related to the principal’s agency and the efficacy of the school faculty, but one in need of further study.

**Collective efficacy.** Since one of the primary goals of schools is to raise the academic success of students, and there is an association between principal efficacy and collective school efficacy, it seems prudent to focus research efforts in the area of principal self-efficacy. Bandura (1997) states, “Staff’s collective sense of efficacy that they can promote high levels of academic progress contributes significantly to their level of academic achievement” (p. 250). Perceptions of collective efficacy contribute independently to differences in school achievement levels and the culture of a school (1997). “Evidence shows that human accomplishments and positive well-being require an optimistic sense of personal efficacy to override the numerous impediments to success” (Bandura, 2009).

The relationship between collective school efficacy and student achievement has received some attention in the research. In Goddard, Hoy and Hoy (2001), the researchers based their investigation on the theoretical work of Bandura (1997) and collective school efficacy. Goddard, et al., (2000) state,

Bandura (1993) reached two important conclusions: (a) student achievement

(aggregated to the school level) is significantly and positively related to collective efficacy; and (b) collective efficacy has a greater effect on student achievement than does student SES (aggregated to the school level). (p. 497)

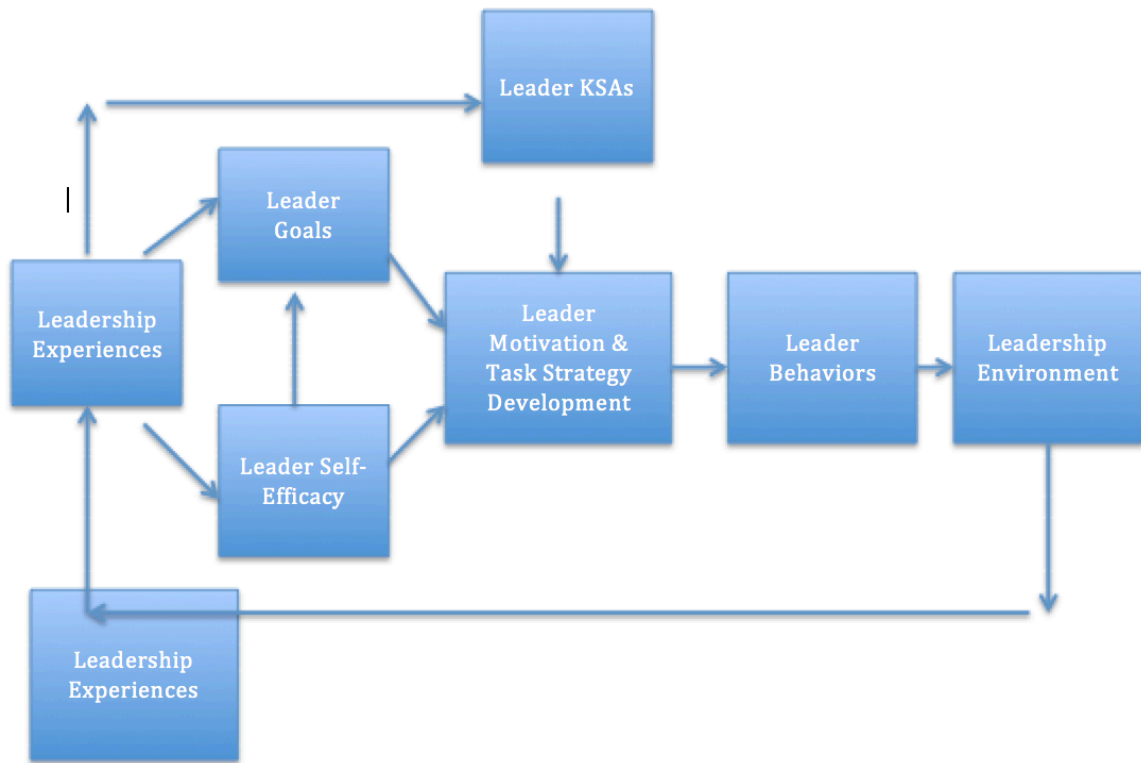
Bandura (1997) also wrote, “Teachers’ sense of collective efficacy varies across grade levels and subjects” (p. 249), and summarized that a staff’s collective sense of efficacy contributes significantly to their schools’ level of academic achievement (p. 250).

Consequently, the study of principal self-efficacy may help to better understand its relationship to faculty collective efficacy and subsequently student achievement.

**Leadership self-efficacy.** According to McCormick (2001) leadership literature had not extensively investigated the concept of self-efficacy, or what is commonly referred to as self-confidence, as a trait of leadership. He developed a model of leadership self-efficacy that helped advance the perspective of self-efficacy that is grounded in Bandura’s (1986, 1997) social cognitive theory. McCormick’s (2001) leadership model applied Bandura’s Triadic Reciprocal Causation model to leadership in which the leader is “engaged in self-regulation in a complex and ever changing task setting, the leadership situation” (p. 28). The construct of leadership self-efficacy (LSE) has been applied to a leader’s motivation for attempting change and overcoming obstacles to change and to the leader’s affect on the attitudes and performance of their followers (Chemers, Watson, & May, 2000; Paglis & Green, 2002). Both McCormick (2001) and Paglis and Green (2002) proposed models to represent a social cognitive model of leadership or LSE.

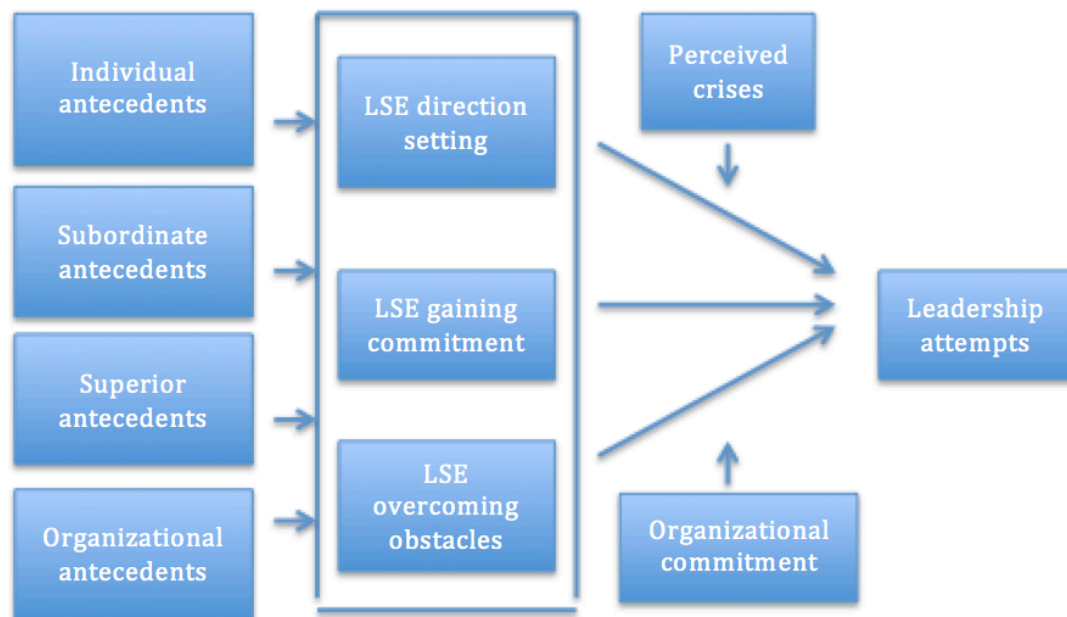
McCormick’s (2001) model (Figure 2) adapted Bandura’s (1977) model to represent the knowledge, skills, and attributes partially developed from leadership experiences as an influence on motivation. As with Bandura, the leadership model accounts for the leader’s

behaviors and the external environment as also affecting the leadership experience. The self-regulation is a complex interaction between these experiences and their changing self-efficacy for leadership.



*Figure 2: McCormick Model of Leadership Self-Efficacy (LSE)*

Paglis and Green's (2002) (see Figure 3) model accounts for the tasks of direction setting, gaining commitment, and overcoming obstacles. In the model, the proposed antecedents of individual, subordinate, superior, and organizational all influence the leader's perception of their ability to implement change. Additionally, perceptions of crises and organizational commitments are moderators to the leader's likelihood to persist in change efforts. These models are important when applied to the rapidly changing role of the principal (Kafka, 2009). Further, Smith et al. (2006) concluded that the quality of teaching and learning is influenced by principal self-efficacy.



*Figure 3: Paglis & Green's Model of Leadership Self-Efficacy (LSE)*

**Principal self-efficacy and burnout.** According to RCW 28A.405.100 Section 8 (a), the TPEP system is to be fully implemented in 2015-2016 and the evaluation scores must be a factor in personnel decisions. This requirement heightens the level of pressure associated with the teacher and principal evaluation from the previous binary system. The role of the principal is becoming more demanding in terms of instructional leadership. Principals must possess increased levels of pedagogical and content knowledge and the ability to effectively supervise and evaluate teachers, provide instructive feedback, develop professional development, as well as complete the other requirements of the position. The result of this greater demand on principal learning and time may result in lower self-efficacy and eventually in principal burnout. Federici and Skaalvik (2012) studied the importance of self-efficacy related to burnout, job satisfaction and motivation to quit. Burnout is defined as “a psychological syndrome that involves prolonged response top stressors in the workplace” and can result in exhaustion and cynicism

(Maslach, 2003, p. 189). Although there are many variables associated with burnout, job stresses and a misfit between the person and the work environment are noted factors (Maslach, 2003). Federici and Skaalvik's (2012) research in Norway included findings characterized as a "strong relation between principal self-efficacy and burnout" for principals (p. 308). This study, although conducted in a different culture, is significant and reports that Norwegian principals' work is often described as demanding and unpredictable, which is similar to principals in Washington. They related this description partly due to curriculum and educational policy that is often changing. The phenomenon of policy change is not unique to Norway, and can be related to TPEP in that TPEP is a significant policy change in Washington State. The need for constant updating of skills and knowledge is needed in order to implement change. Federici and Skaalvik (2012) note that self-efficacy contributes to the ability for this functioning because it relates to choice, effort and perseverance (p. 313). Principals with higher self-efficacy are more likely to persevere in difficult change initiatives, and principals with lower self-efficacy distance themselves from difficult work will "most likely dwell on the formidable aspects of a project, exert insufficient effort, and, as a result, fail" (Stajkovic & Luthans, 1998, p. 63).

### **Measures of Self-Efficacy**

**Historical context.** Goddard, et al., (2004) developed a psychometric instrument based on work by Gibson and Dembo (1984). Goddard, et al., (2004) reported that the items were worded so that teachers would consider both group competence (GC) and task analysis (TA) in their efficacy assessments. This approach led to the identification of four types of items to assess collective efficacy beliefs (CTE): group competence/positive

(GC+), group competence/negative (GC-), task analysis/positive (TA+), and task analysis/negative (TA-). The researchers piloted the instrument and found it be “valid and reliable” and ready to be used in a more robust setting (p. 489). The researchers then used the scale to test predictions about collective efficacy and student achievement in an urban elementary school (p. 491). The study included 47 elementary schools in which they surveyed teachers with their 21-item collective teacher efficacy instrument. Their results: All items loaded strongly on a single factor and explained 57.89% of the variance. As a test of factor independence, they researchers also constructed a two-factor solution. The strength of the correlation between these factors ( $r = .75, p < .001$ ) provided further evidence that collective teacher efficacy is the common unobserved factor operationalized by our revised collective efficacy scale. There was a moderate and positive ( $r = .54, p < .01$ ) correlation between personal teacher efficacy aggregated at the school level and collective teacher efficacy. A positive relationship between faculty trust in colleagues and collective teacher efficacy was predicted, which helps support construct validity. Similar to the pilot results, trust in colleagues was positively and significantly related to collective teacher efficacy ( $r = .62, p < .01$ ) (pp. 488-496). Goddard, et al., (2004) reported, “This efficacy scale proved to be reliable and valid in two independent samples, and it was useful in predicting student achievement in mathematics and reading” (p. 503). This analysis is based on the construct validity and the internal reliability indicated by a Cronbach’s Alpha of .96 (p. 496). The importance of this research helps validate an association between teacher individual efficacy and collective efficacy. Further, the results suggested: “one way for school administrators to improve student achievement is by working to raise the collective efficacy beliefs of their faculties” (p.

502). These findings offer support for further investigation on the measures of principal self-efficacy.

**Measures of principal self-efficacy.** Much of the research reviewed has a common theme: the notion that self-efficacy is a well-researched construct within social cognitive theory, and that there is limited research available that measures principal self-efficacy.

We know that the school principal's sense of efficacy has an impact on the functional leadership strategies and execution of those strategies (McCormick, 2001). We also have minimal research on measuring principal self-efficacy. Tschannen-Moran and Gareis (2004) write, "the earliest measure of principals' efficacy beliefs was developed by Hillman (1986) and was similar in format to measures of teacher self-efficacy developed about the same time" (p. 575). Hillman (1986) worked on three self-efficacy scales, which included students, teachers and principals (abs) and stated, "The importance of the study at hand is the inclusion of multi-dimensions in measuring self-efficacy and balancing these dimensions within the instruments" (p. 26). The limitation was that it used a forced choice format, which focused on attribution theory, thereby making the analysis difficult. Further, Tschannen-Moran and Gareis (2004) reported that related instruments developed by Imants and DeBradbander (1996) and Dimmock and Hattie (1996) produced "disappointing" results with "insufficient stability and reliability to prove useful for future study" (p. 577). The first attempted to measure self-efficacy relative to the difficulty of the task, while the second was based upon a series of vignettes. Tschannen-Moran and Gareis (2004) went on to state that measures attempted by subsequent researchers strove to measure social cognitive theory where the perceived

self-efficacy is task specific (p. 576).

Researcher Megan Tschannen-Moran partnered with Christopher Gareis (2004) to investigate the principal as a key change agent at the school level, initiating change by “raising the level of expectations of both teachers and students” (p. 573). Tschannen-Moran and Gareis (2004) are cited in several articles and dissertations when discussing an instrument designed to measure principal self-efficacy. Their work is also cited in many other studies on principal self-efficacy. As mentioned earlier, one such study by Federici and Skaalvik (2012) developed a measure to explore self-efficacy related to burnout, job satisfaction and motivation to quit. The researchers developed a Norwegian Principal Self-efficacy Scale (NPSES), which was similar to Tschannen-Moran and Gareis’ PSES but with eight dimensions. This study is one of few investigating this relationship. Others are focused on correlations to teacher self-efficacy and collective faculty self-efficacy (Goddard et al, 2004). Consequently, additional research using the PSES is needed to add to the body of knowledge about this instrument.

***PSES: The scale.*** The Principal Self-Efficacy Scale (PSES) was developed as an adaptation of the Teachers Self-Efficacy Scale (TSES) presented by Tschannen-Moran and Woolfolk Hoy (2001). The PSES instrument is based on the professional standards articulated by the Interstate School Leaders Licensure Consortium (ISLLC, 2008). In an attempt to fare better than previous researchers Tschannen-Moran and Gareis (2004) field-tested their instrument with 10 former principals for clarity of directions, appropriateness of the items, and the response scale. The result measure using a six-point Likert scale, anchored a 1 = strongly disagree and 6 = strongly agree (p. 579). Researchers also included questions related to demographic variables, opinion on the



quality of various supports, and personal characteristics. The result was the PSES used in their study (2004) that included a sample of 544 principals from public schools in Virginia. The survey was mailed and had a response rate of 28 percent. The researchers used principal axis factor analysis and removed items with a communality of less than .30 to reduce the scale to 18 items and three subscales (p. 580). This communality has to do with the statistical method to account for the variance among the items (Pett, Lackey & Sullivan, 2003, pp. 141-149). The construct validity in the measure was negatively related to work alienation ( $r = -0.45, p < 0.01$ ) and positively correlated to both trust in teachers ( $r = 0.42, p < 0.01$ ) and trust in students and parents ( $r = 0.47, p < 0.01$ ) (p. 580). Tschannen-Moran and Gareis (2004) were attempting to determine the best approach to capture principal self-efficacy. Their strategy of ascribing a context within the directions proved reasonably successful but needs further study.

***PSES: The survey.*** An Auburn University study of leadership self-efficacy beliefs of principals discusses the results of an exploratory study of principal self-efficacy beliefs for facilitating effective instructional environments at their schools. The study included 284 principals from 12 states (Smith et al., 2006). The first question the researchers investigated was demographic variables and their impact on principal self-efficacy; the second question was whether there were significant differences between perceived beliefs and actual practices; and, the third asked principals to provide an outcome expectancy for their efforts to facilitate effective teaching and learning at their schools (p. 9). They used an instrument also referred to as the PSES - The Principal Self-Efficacy Survey, which is different from the PSES of Tschannen-Moran. They used a 4-point scale to investigate principal self-efficacy in the leadership domains of instructional

leadership and management skills. Smith et al. (2006) reported using four separate stepwise regression analyses “to identify the most important variables in predicting the four criteria variables: (1) self-efficacy in instructional leadership, (2) self-efficacy in management, (3) reported time devoted to instructional leadership, and (4) reported time devoted to management” (p. 5).

The survey instrument developed by Smith et al. (2006) was three sections with the first section including 14 items assessing the domains of instructional leadership and management skills. This part of the survey demonstrated internal consistency measured using Cronbach’s alpha with coefficients of .86 and .74 for instructional leadership and management practices, respectively (p. 11). The second portion contained eight items related to the use of time during a typical week. Finally, the last section asked principals to rate their beliefs about their ability to facilitate effective instruction in their schools (p. 11). The regression results proved significant relationships existed. According to Field (2013), we can say that  $R^2$  refers to the individual contribution of the variable to principal self-efficacy (p. 325). After stepwise regression analysis was completed, self-efficacy predicted instructional leadership yielded  $R^2 = .145$ ,  $p < .001$  with gender (beta = .286,  $p < .001$ ), free/reduced lunch (beta = .195,  $p \leq .001$ ), and number of students (beta = .154,  $p = .009$ ). Predicting self-efficacy in management yielded  $R^2 = .196$ ,  $p < .017$  with only free/reduced lunch as significant (beta = .177,  $p = .046$ ). A third stepwise regression analysis for time devoted to instructional leadership yielded  $R^2 = .156$ ,  $p < .001$  with gender (beta = .161,  $p = .002$ ) and free/reduced lunch (beta = .320,  $p < .001$ ). Finally, the fourth stepwise regression analysis reported time devoted to management activities and yielded  $R^2 = .051$ ,  $p = .002$  with only the variable “number of years as a principal”

significant (beta =  $-.274$ ) (pp. 9-16).

### **High Stakes Accountability in Florida**

John Frank McCullers investigated principal self-efficacy beliefs as part of a dissertation published in 2009. McCullers sought to measure the self-efficacy beliefs of Florida school principals regarding federal and state accountability measures. He was interested in how social cognitive theory might explain principal motivation related to these measures (p. 17). McCullers and his primary advisor, William Bozeman, also published an article outlining the findings in the March 2010 edition of the NASSP Bulletin. Specifically, McCullers (2009) sought to measure “to what degree principals believed the goals of the federal and state accountability measures were actually attainable, and to what degree they believed their efforts actually help achieve these goals” (p. 7). The previous studies reviewed in this paper were designed to establish a link between principal self-efficacy and the collective efficacy of the faculty. This relationship helps link the performance of the principal to the performance of the teachers. McCullers applied the same measurement concept to the whether principals thought the actual goals were achievable.

McCullers articulates his theory as follows:

The theoretical model in this study recognized that the accountability movement as characterized by the *Florida A+ Accountability Plan* (2006) and the *No Child Left Behind Act of 2001* (2002) required principals to lead their schools so that their students attain expectations that were not only high, but which were extraordinarily high. The principals (and, of course, the teachers) were working in a potentially stress-inducing situation, as these expectations were designed to

increase over time. (p. 8)

McCullers (2009) surveyed 112 principals in Florida and used a

Web-based anonymous questionnaire developed by the researcher. This instrument focused narrowly on self-efficacy beliefs related to the instructional leadership and human resources management dimensions of the Principalship related to the No Child Left Behind Act of 2001 and the Florida School Grades Plan to measure principal self efficacy. (p. 67)

McCullers (2009) reported a Cronbach's Alpha of 0.78, which is comparable to Tschannen-Moran and Gareis (2004) and Smith et al. (2006) who reported 0.77 and 0.79 respectively (p. 67). His findings were that principals believed they had "quite a bit" or "a great deal" of effect in leading their schools toward federal education goals (76.8%), and principals believed they had "quite a bit" or "a great deal" of effect in leading their schools toward state education goals (86.5%). This difference was statistically significant ( $p < 0.01$ ) with a large effect size (eta squared = 0.94) (p. 101). However, there was a large difference in principal beliefs about actual attainability of the goals of the federal and state accountability measures with 83.8% of principals believing their school could earn an "A" under the *Florida School Grades Plan* but only 20.7% believed their school could achieve 100% grade level proficiency in mathematics and reading by 2014, as required by NCLB 2001 (p. 102). This large difference, and low belief in the federal plan, aligns with Bandura's principle of triadic reciprocity in that principals may develop lower self-efficacy as a result of the perceived difficulty in attaining the federal goal. Further, this finding of the low belief of attainability introduces the likelihood of lower principal self-efficacy beliefs, a lower likelihood to implement required changes, and a higher

likelihood of burnout (Federici & Skaalvik, 2012; McCormick, 2001; Paglis & Green, 2002; Stajkovik & Luthans, 1998).

McCullers predicted a lower sense of self-efficacy, which was supported by the data. Specifically, “Of the 111 principals responding, 23 (20.70%) reported that they believed this goal was attainable” (p. 83). McCullers posited a drop in self-efficacy as the outcome of stress and lower morale, and a related decrease in actual performance. Bandura (1997) discussed social cognitive theory in this context stating, “In their daily transactions, people analyze the situations that confront them, consider alternative courses of action, judge their abilities to carry them out successfully, and estimate the results the actions are likely to produce” (p. 5). In layman’s terms, people will put less effort into a perceived unattainable goal. Bandura (1971) referred to this self-assessment as part of a process of self-reinforcement (p. 35). Those in leadership roles may experience an erosion of their sense of efficacy as difficulties arise. Consequently they may become erratic in their problem solving, begin to lower their aspirations for the individuals and groups, and eventually see declines in organizational performance (Leithwood & Riehl, 2003).

### **Sanctions, Threat Rigidity and Self-Efficacy**

As stated earlier, sanctions and high stakes evaluations may introduce threats to an organization that result in less flexibility and lower efficacy. Daly et al. (2011) studied a construct called “threat rigidity” and how school improvement is hampered by threat-rigid responses to sanctions (p. 173). In this study, the researchers used the PSES of Tschannen-Moran and Gareis (2004) to “(1) analyze the difference between principals serving INI and non-INI schools in perceptions of threat-rigid response, transformational

leadership, and efficacy; and (2) to test which variables may predict perception of threat-rigid response” (p. 174). The researchers also used a threat rigidity scale created by Daly et al. (2011), which measured internal consistency at .95 on Cronbach’s Alpha, which is very high (Vogt & Johnson, 2011).

The rules that are part of NCLB sets in motion progressive sanctions in schools designated in need of improvement (INI) in California and other states. These sanctions may be harmful to the INI schools as described by Daly et al. (2011). The study cited organizational threat-rigid responses that include: “the development of a more rigid structure characterized by restrictive thinking reliance on past experience or prior knowledge, increased centralization of authority, more extensive formulation, and standardization of procedures” (Daly et al., 2011, p. 175). A summary of this scholarly work is that organizations or communities can perceive and experience a socially constructed sense of a perceived threat condition (Daly et al., 2011). Since these threat conditions may lower principal and collective efficacy, external influences that include district conditions become important and can be supportive (Leithwood et al., 2007). The practical outcome of this proposed study is to partially inform school systems of the importance of supports that may help increase principal self-efficacy and consider specific supports needed for the attainability of policy initiatives.

## **Chapter Three**

### **Methodology**

#### **Introduction**

Chapters One and Two described self-efficacy as a measurable variable and how social cognitive theory enabled the investigation of principal motivation and leadership behaviors through the construct of self-efficacy beliefs. Chapter Three explains the research questions and related hypotheses for this study as well as describes the population, sample, instrumentation, and statistical methods used.

#### **Research Questions**

The purpose of the research study was to determine to what degree principals believed the TPEP would be successfully implemented given the other requirements of the job. The study also examined the degree principals PSES score correlates to their belief that they would successfully implement TPEP in their school. Finally, the study examined the relationship between demographic variables of the principal or school and self-efficacy beliefs. The original research questions were:

1. Do principals believe they will be successful in implementing TPEP in their school?
2. Does the principal's level of self-efficacy (PSES score) have a significant relationship to their belief that they will successfully implement the new Teacher Principal Evaluation Project (TPEP) in their own school?
3. Do principal personal or district demographic variables correlate to the level of principal self-efficacy as measured by the PSES?

- a. Does the total years as a head principal at their present school correlate to level of principal self-efficacy?
- b. Does the gender of the principal correlate to level of principal self-efficacy?
- c. Does Title I improvement status, or non-Title I, designation correlate to the level of principal self-efficacy?
- e. Does Free or Reduced Meal (FRM) rate correlate to the level of principal self-efficacy?

The research hypotheses related to these research questions were:

1. Principals' self-efficacy belief as measured by the PSES score will show a statistically significant ( $p < .05$ ) positive correlation with in their belief that they can successfully implement TPEP in their school.
2. Principals' self-efficacy belief as measured by the PSES score will show a statistically significant ( $p < .05$ ) positive correlation with personal factors of total years as principal at the same school and gender.
3. Principals' self-efficacy belief as measured by the PSES score will show a statistically significant ( $p < .05$ ) positive correlation from environmental factors including non-Title 1 and Free and Reduced Meal rates.
4. If there are correlations, then ordinal regression will be used to determine the contribution of the variables to the PSES score.

These hypotheses reflected an expectation that Washington State principals were familiar with the requirements of TPEP and have developed a perception of the successful implementation as scheduled for 2015-2016. It was expected that principals



who understood the time demands and expertise needed for the new TPEP system would understand that these additional demands have made it challenging to implement this change without ample support. It was expected that principals with higher self-efficacy scores would have higher beliefs about their ability to successfully implement TPEP.

### **Research Design**

This study was designed as a descriptive correlational study intended measure the self-efficacy of public school principals and to describe the relationship between school principal self-efficacy and the implementation of TPEP. Specifically, the study sought to determine the extent to which principals believed they would be successful in implementing TPEP in their school. This study also sought to determine the extent to which this belief and various personal and demographic variables correlated to principals' Principal Self Efficacy Scale (PSES) score. The design was grounded in the understanding that principal self-efficacy was created within a system of triadic reciprocity (Bandura, 1986). This system was represented by a model developed by Bandura that considers behaviors, personal factors and environmental factors as interacting to provide "causative capability" (Bandura, 1997, p. 2). The advent of TPEP introduced a new model of evaluation into public schools, and this new model was significantly different than previous evaluation models for teachers and principals. This new evaluation system introduced an environmental factor in Bandura's model that was studied. Bandura (1986) noted in his model that reciprocity did not indicate symmetry in the strength of the various environmental, personal and behavioral factors. He also noted that the relative influence of each would vary from individual to individual, and from circumstance to circumstance. This study enabled principals to provide information

based on the context of their individual school and district setting. The use of an anonymous survey provided an opportunity to collect ample information for analysis.

The study was a survey of school principals and used the PSES instrument and accompanying questions to collect perception data from responding principals. The study identified TPEP as a key variable as an external environmental factor within Bandura's (1986) triadic reciprocal causation model. The design enabled the analysis of self-efficacy as a measure and the environmental factor of TPEP as an influence as well as the other environmental and personal variables noted in the research questions. The study also investigated how environmental and personal factors were correlated to principal self-efficacy beliefs related to the new public school policy (TPEP) and its implementation. The study enabled the analysis of subscales within PSES of management, instructional leadership and moral/ethical leadership. The questions on management were related to time management, dealing with paperwork and stress, setting policies, and prioritizing the demands of the job (Questions 3, 11, 12, 15, 17, and 18). The questions on instructional leadership, were centered on facilitating learning, creating and sustaining a shared vision, dealing with change, developing a positive environment, raising student achievement, and motivating teachers (Questions 1, 2, 4, 6, 7, and 9). Moral leadership prompts were related to increasing students' school spirit, dealing with the media to present a positive view of the school, promoting the values of the school, handling discipline and behavior of students, and encouraging ethical behavior in the staff (Questions 5, 8, 10, 13, 14, and 16) (Autry, 2010).

In this study, TPEP represented a policy change that had become an environmental factor and was a critical variable in Bandura's concept of self-efficacy.

TPEP represented a variable that was measured in this study. This public school policy required full implementation in 2015-2016. Eight districts and the ESD 101 Consortium of eight schools piloted early versions of TPEP as early as 2011-2012 (Miller, 2015), while others had not implemented the new system until the required implementation year. The variation of school implementation timelines introduced complexity and unavoidable limitations in the study. However, all public schools were subject to the new policy, and all experienced the same conditions of scoring teachers and principals. The scoring system included accountability and consequences for low overall scores and low student growth scores, which may have created the perception of a threat condition by principals. Studies had shown that a threat-rigid response may result from this condition, which may in turn hamper a principal's agency to implement change (Bandura, 1997; Daly, 2011), thus lowering their sense of self-efficacy.

Environmental variables, such as the school's socioeconomic conditions and Title I improvement status, were conditions that may have influenced principal self-efficacy and agency in this study. Studies support the conclusion that self-efficacy has been related to the likelihood principals have the motivation to perform the functions required by TPEP (McCormick & Martinko, 2004; Pajares & Kranzler, 1995; Smith et al., 2006). Studies have shown that schools with high percentages of poor children have been associated with lower achievement, which has been an environmental factor in Title I schools and schools with higher Free and Reduced Meal (FRM) rates (Jacobson, Olsen, Rice, Sweetland, & Ralph, 2001). In addition to lower achievement, factors of poverty, urban or rural setting, and high-minority populations have been associated with higher teacher mobility (Ingersoll, 2010) and more out-of-field teachers (Ingersoll & Gruber,

1996), which also may have been an influence a principal's agency and causal capability (Bandura, 1997). This study had limited the environmental factors to Title I improvement status and Free and Reduced Meal rates. These demographic factors of the school's Title I improvement status and the Free and Reduced Meal rate were selected for this correlation study because these were found in some of the literature to have significant bivariate correlations or were reported in regression analyses as having an individual contribution to principal self-efficacy (Tschannen-Moran & Gareis, 2005; Smith et al. 2006).

Personal variables such as total years at the same school and gender were factors that may have influenced a principal's feeling of competence. According to studies, the construct of leadership self-efficacy (LSE) has been applied to a leader's motivation for attempting change and overcoming obstacles to change in other fields. The leader's self-efficacy level has been found to positively influence a principal's likelihood to pursue their goals (Tschannen-Moran & Gareis, 2005), which in turn has had a positive affect on the attitudes and performance of their followers (Chemers et al. 2000; Paglis & Green, 2002). A study by Autry (2010) found the variable of principal gender positively correlated to the collective efficacy of a faculty. Schools with female principals tended to have higher collective efficacy, however male principals rated themselves higher in self-efficacy. Autry's study was limited to private independent schools. This study did not measure collective efficacy, nor was it completed in private schools. Consequently the researcher predicted male principals would report higher self-efficacy, which had been found in other public school studies (Tschannen-Moran & Gareis, 2005). The personal factors of gender and experience as principal of their current school were selected for

correlation study because these were found in some of the literature to have significant bivariate correlations or were reported in regression analyses as having individual contributions to principal self-efficacy (Tschannen-Moran & Gareis, 2005; Smith et al., 2006).

### **Population and Sample**

This study surveyed principals in Washington State public schools as identified through the Office of Superintendent of Public Instruction's public website. This website had a directory available that enabled exporting of listed emails to Excel. There were 2,384 total schools listed in the directory as of April of 2015. Only public schools were included in this study, so the researcher removed private schools and non-principal contacts from the list for the study. Schools without published email contacts for the principal were also excluded from this study.

### **Instrumentation**

The instrument used to investigate these research questions was be a web-based anonymous questionnaire that included a description of the study. External and personal factor questions, the Principal Sense of Efficacy Scale (PSES) survey and additional questions from the researcher completed the survey. This instrument was selected because it has high internal consistency, particularly in instructional leadership, and it was available from the developer. The context of the study required the respondent to focus their responses on self-efficacy beliefs related to their current position as a principal. The subscale dimensions measured on the PSES were management, instructional leadership, and moral leadership. Tschannen-Moran and Gareis (2004) developed the PSES. The PSES was tested for reliability as researchers reported the

Cronbach alpha coefficient for internal consistency was .91 for the overall 18-items with subscale .86 for *Principals' Sense of Efficacy for Instruction*, .87 for *Principals' Sense of Efficacy for Management*, and .83 for *Principals' Sense of Efficacy for Moral Leadership*. The subscales were moderately correlated with one another ( $r = .48 - .58$ ). In addition, the researchers reported using principal axis factoring to explain 70 percent of the variance with an eigenvalue of 2.10 (Tschannen-Moran & Gareis, 2005). This survey has been used in several other studies including Daly et al. (2011). Given this analysis, the full-scale survey was used in the study, which enabled the researcher to use the overall PSES score as well as each sub score to measure correlations to the predictor variables.

This study used the survey to investigate the extent to which personal, behavioral, and environmental factors correlate and helped inform discussion of how they act reciprocally in determining self-efficacy. Each of the factors had multiple variables. As shown in the table below, this study looked for correlations of self-efficacy beliefs as modified by the selected personal and environmental factors within the context of implementing TPEP. The FRM measurement followed the U.S. Department of Education thresholds as published through the National Center for Education Statistics (USDE, 2010).

Table 1

*Variables and Measurements*

Variable	Measurement
Head Principal Experience at present school	Years as head principal (0-3, 4-9, 10+)
Gender	Male or Female
Title I in “improvement status”*	Yes or No
FRM Rate (USDE, 2010)	Percentage who qualify for FRM (0-25, 26-50, 51-75, 76+)

\*Improvement status means the school did not make AYP for at least two consecutive years.

**Data Collection Procedures**

This study surveyed principals of a sample of public schools with available email addresses in Washington State. As of April 2015, there were 2,384 total schools listed. The researcher intended to use an updated directly list in the fall of 2015 to develop a list of public school principals to survey, however, the list was not updated by OSPI. There was no timeline for updates as reported by the Communications Director of OSPI. Therefore the fall 2015 was used. After obtaining authorization from the Seattle Pacific University Institutional Review Board, each principal was sent an introductory email from the investigator with a brief description of the study, the researcher and instructions on how to access the web-based survey. The email explained the nature and purpose of the study, and that the survey itself was voluntary, and the anonymity of the participants was protected. The invitation also explained that the email addresses obtained for this study were from the Washington District Directory available on the OSPI website.

Response rates for surveys tend to be low in general, which occurred in this study as well (Fowler, 2009). The advantages to this online format were low cost, high speed of returns, and ease of statistical analysis. The disadvantages were potential school district spam filtering that limited the realized sample size and the limited cooperation of busy principals that may have impacted the response rate and subsequent generalizability of the findings. To enhance the likelihood of a better response rate, the survey was sent in the fall of the 2015-2016 school year after school had begun and two additional times. The survey windows were November 10, 2015 through November 24, 2015, again from January 4, 2016 through January 15, 2016, and for a third time from February 7, 2016 through February 11, 2016. After the survey period ended, the data were downloaded from the Web-based survey website into Excel and then password protected and marked as read only, preventing any inadvertent changes to the original data. The data were also downloaded directly from the Web-based survey website into SPSS for analysis. The IP addresses were not collected on the respondents as indicated in the informed consent statement.

### **Analytic and Statistical Methods**

This study produced PSES scores for principals who responded. The scores were calculated as mean scores for the overall respondents as well as for principals who responded to the categorical variable (yes/no) of whether they believed they would successfully implement TPEP in their school. This study also determined the percentage of principals responding to the question related to whether principals believed they would successfully implement TPEP in their school. Descriptive statistics will be used to assess responses to the ordinal questions. This study used a Pearson product-moment analysis to



test for correlations between principal self-efficacy beliefs and the degree to which principals believed TPEP would be successfully implemented. This study also sought to explore the relative influence of each of the variables in relation to the entire set of variables. To do this the researcher planned to employ ordinal logistic regression using SPSS with the sets of variables entered in hierarchical fashion. This included a study of the relationship of the categorical variables and the ordinal self-efficacy score. Had there been correlations in the personal and external variables, an *R* square value would have been used to determine the portion of the variance accounted for by the environmental factor variables and personal factor variables.

### **Summary**

Chapter Three described the research questions and related hypotheses for this study as well as the population, sample, instrumentation, and statistical methods to be used. Key to the study was the use of the Principal Sense of Efficacy Scale (PSES) developed by Tschannen-Moran and Gareis (2004). Bandura (2000) discussed implications for development of principals, and the approaches that may help develop self-efficacy in managers. Consistent with the theory of triadic reciprocal causation, Bandura (2000) proposed guided mastery, cognitive mastery, and self-regulatory competencies. This approach certainly includes the development of public school principals' efficacy beliefs, which should be a consideration of school districts as well as principal preparation programs. Studies have confirmed that self-efficacy has been an influence in the level of effort and persistence that has been expended in a leaders daily work. In addition, studies have confirmed that self-efficacy has been a factor in the resilience of leaders in the face of setbacks. To a small degree the design of this study

helped advance knowledge about principal self-efficacy related to the implementation of TPEP, which has been a significant change initiative. This study may also have helped identify areas for additional study.

## Chapter Four

### Results

#### Introduction

The purpose of this chapter is to present the data and subsequent analysis of the research questions. This research study sought to measure the self-efficacy of public school principals in Washington State and to determine the correlation of their self-efficacy score to their belief that they will successfully implement TPEP. Additionally, the study examined the relationship between personal and demographic variables of the principal or school and principal self-efficacy beliefs. Finally, this study sought to provide continued validation of the Principal Self Efficacy Scale (PSES) as an instrument to measure school Principal self-efficacy.

#### Research Questions and Hypotheses

**Research Questions.** Research questions were:

1. Do principals believe they will be successful in implementing TPEP in their school?
2. Does the principal's level of self-efficacy (PSES score) have a significant relationship to their belief that they will successfully implement the new Teacher Principal Evaluation Project (TPEP) in their own school?
3. Do principal personal or district demographic variables correlate to the level of principal self-efficacy as measured by the PSES?
  - a. Does the total years as a head principal at their present school correlate to level of principal self-efficacy?

- b. Does the gender of the principal correlate to level of principal self-efficacy?
  - c. Does Title I improvement status, or non-Title I, designation correlate to the level of principal self-efficacy?
  - d. Does Free or Reduced Meal (FRM) rate correlate to the level of principal self-efficacy?
4. If statistically significant positive correlations exist, then what are the contributions of the personal and environmental variables on the PSES score?

**Hypotheses.** The research hypotheses related to these research questions were:

1. Principals' self-efficacy belief as measured by the PSES score will show a statistically significant ( $p < .05$ ) positive correlation with in their belief that they can successfully implement TPEP in their school.
2. Principals' self-efficacy belief as measured by the PSES score will show a statistically significant ( $p < .05$ ) positive correlation with personal factors of total years as principal at the same school and gender.
3. Principals' self-efficacy belief as measured by the PSES score will show a statistically significant ( $p < .05$ ) positive correlation to environmental factors including non-Title 1 and Free and Reduced Meal rates.

### **Data Collection**

As noted in Chapter Three the data from the online voluntary principal survey were collected using a commercial, Web-based survey provider from November 10, 2015 through November 24, 2015, again from January 4, 2016 through January 15, 2016, and for a third time from February 7, 2016 through February 11, 2016. After the survey

period ended, the data were downloaded from the Web-based survey website into Excel and then password protected and marked as read only, preventing any inadvertent changes to the original data. The data were also downloaded directly from the Web-based survey website into SPSS for analysis. The IP addresses were not collected on the respondents as indicated in the informed consent statement. As described in Chapter Three, analytic tests were conducted in SPSS Version 23 to investigate the research questions and to test the hypotheses. Chapter Four will describe the results of that analysis.

### **Population and Sample Characteristic**

The population that generated this database was collected from a district directory of Washington schools. The most updated version was available from April of 2015. There had been no update to this directory at the time of data collection in November of 2015. The researcher reviewed the initial list of 2,384 rows of listed emails.

Prior to sending the online survey, the researcher removed rows of email contacts for listings that were not principals but instead were district directors or other positions that traditionally would not evaluate teachers. The researcher also removed rows of email contacts that were duplications, did not include email contacts, were home school partnerships, were contract-based programs, were special education preschools, and were private schools. After sending the initial and second email survey, the researcher received numerous returns with spam messages, and additional direct messages from principals who were no longer in the position. These names were removed as well. Two districts, Tacoma and Everett, notified the researcher that they declined to allow their principals to participate in the study. The researcher removed the school email contacts for principals

in those districts. Prior to sending the third and final survey participation request to principals, the researcher reviewed all of the remaining schools, principal names, and email addresses and verified the contacts through internet searches to locate the school and their listed principal and email. In total, the final population list included 1,280 emails that the researcher could reasonably expect cleared spam filters and made it to a practicing public school principal.

### **Analysis of Response Rates**

The final population of this study included 1,280 public school principals in Washington State whose emails are publicly available via the Office of the Superintendent of Public Instruction website and verified via school published websites. During the three survey periods, ( $n = 346$ ) of the total list of principals ( $n = 1,280$ ) responded to the survey by completing some or all parts of the survey. The total initial responses to the survey were a sample of 346, which resulted in an initial response rate of 27.0%. Of the total of 346 who started the survey, 321 of 346 completed all parts of the survey for a completion rate of 92.8%. Upon analysis, there were 10 respondents who began the survey and stopped after only a few questions. When these 10 incomplete records were removed, the final respondents totaled 336, which resulted in a 26.3% response rate.

Response rates for surveys tend to be low in general (Fowler, 2009). The advantage to the online format was a low cost and potential for high speed of returns. The disadvantages were school district spam filtering that limits the realized sample size and the limited cooperation of busy principals. In this study the resource accessed through OSPI had not been updated regularly, and subsequently limited the population and final

sample size. According to Sax, Gilmartin and Bryant (2003), email survey response rates have declined over time but may be expected to be close to 21%. According to Sheehan (2001), low response rates are a concern, since answers from respondents may differ substantially from the non-respondents, resulting in a potentially biased estimate of the characteristics of the population. Consequently, a rate of 26.3% is considered adequate for this study.

### **Principal Personal Variables and Environmental Variables**

Two items of information about each principal were collected for the purpose of hypothesis testing: the total years experience as head principal at their present school and the gender of the principal. The participants reported a range of experience as head principal in their school. Approximately 33.6% reported 0-3 years, 40.5% reported 4-9 years, and 25.9% reported 10 or more years.

The schools these principals led were diverse in their Socioeconomic Status (SES). 38.3% of the participants reported they led Title I schools that were in improvement status as a result of not making Adequate Yearly Progress (AYP) in one or more federally required categories (OSPI, 2015b). Additionally, nearly half reporting as high poverty schools with almost 50% free or reduced meals eligibility (FRM): 0-25% FRM (13.4%), 26-50% (37.0%), 51-75% (30.2%), and 76%+ (19.4%). Table 2 and Table 3 represent frequency data for principal personal variables. Table 4 and Table 5 represent frequency data for school demographic environmental variables.

Table 2

*How many years have you served as head principal at your school?*

Answer Choices	Percentage	Responses
0-3	33.63	113
4-9	40.48	136
10+	25.89	87
Total		336

*Note.* There were 346 total survey responses and 336 responded to question 24; 10 respondents skipped this question.

Table 3

*What is your gender?*

Answer Choices	Percentage	Responses
Male	54.79	183
Female	45.21	151
Total		334

*Note.* There were 346 total survey responses and 334 responded to question 25; 12 respondents skipped this question.



Table 4

*Is your school in Title I “improvement status”?*

Answer Choices	Percentage	Responses
Yes	38.32	128
No	61.68	206
Total		334

*Note.* There were 346 total survey responses and 334 responded to question 26; 12 respondents skipped this question.

Table 5

*What is your school’s percentage of students who qualify for free or reduced meals?*

Answer Choices	Percentage	Responses
0-25	13.43	45
26-50	37.01	124
51-75	30.15	101
76+	19.40	65
Total		335

*Note.* There were 346 total survey responses and 335 responded to question 27; 11 respondents skipped this question.

### **Analysis of Data**

Survey research relies on the participants to complete a series of questions. In this study, there were a total of 27 questions with the first 18 questions constituting the PSES survey. A review of the survey results revealed most of the respondents completed the entire survey. The first 18 questions of the survey constituted the PSES survey, and

subsequently the mean PSES score and mean subscale scores for each participant were based on their responses to those questions. Ten of the respondents stopped the survey after completing some of questions but not completing the remainder of the survey. This can occur for a variety of reasons as participants may accidentally miss a question or exert their right to not answer a question (Field, 2013). Each of these 10 respondents' data was removed from the data set. The remaining 15 respondents completed most of the survey questions with just a few sporadic missing values. These respondents were kept in the data for an overall set of 336 records.

According to Field (2013), missing values can create “statistical problems” and can be accounted for in SPSS (p. 108). SPSS was used to define the remaining missing values and replace them with the series mean (Grande, 2015). The researcher used SPSS function Analyze/Descriptive Statistics/Descriptives for questions 1-18, which is the PSES portion of the data. This resulted in 321 valid listwise records. The missing values for questions 1-18 ranged from zero to four with the missing system percent ranging from zero to 1.2 percent. According to Grande (2015), it is appropriate to replace the missing values with the series mean in a record as long as the percent missing is under five percent. The remaining records with missing values in the PSES series of questions were replaced with the series mean.

SPSS version 23 was used for normality and descriptives testing by running Analyze/Descriptive/Explore to examine graphic and numeric assumptions of normality. These data are reported to address the linearity of the model and the normality of the categorical variables so that test statistics may be interpreted. The categorical variables were: Successfully implementing TPEP (Yes or No), male or female, years as head

principal at the school (0-3, 4-9, or 10+), Title I Improvement Status (Yes or No), and Free/Reduced Meal percentage (0-25, 26-50, 51-75, or 76+). These are reported in tables to indicate the normality of the data. According to Field (2013) the Shapiro-Wilk is preferred to the Kolmogorov-Smirnov test as it has “more power to detect differences in normality” (p. 188). For this reason, the Shapiro-Wilk test was used to determine if the distribution of scores was significantly different than a normal distribution (Field, 2013). When the values of skewness and kurtoses were reviewed, this test revealed they were within normal ranges (less than 1.0 and greater than -1.0).

The researcher computed a mean PSES score by using Transform and created a new variable to represent these mean scores and the variable for comparison. The researcher selected the robust method of bootstrapping at the 95% confidence level and the default 1000 bootstrap samples to further test for normality, and the results were similar to the initial results reported in Table 6 (Field, 2013). The Shapiro-Wilk’s test ( $p > .05$ ) and a visual inspection of their histograms, normal Q-Q plots and box plots shows that the PSES mean scores were approximately normally distributed for each of the stated variable relationships. That is, the histograms appeared normally distributed without significant skewness or kurtosis. Also, the Q-Q plots revealed the data points linearly distributed along the regression line. The box plots revealed few outliers, which will be addressed below. Table 6 is a report of the data for the personal variables and Table 7 is a report of the data for demographic variables.

Table 6

*Normality Tests for Personal Variables*

		How many years have you served as head principal of your current school?			
		Shapiro-Wilk			
		Statistic	<i>df</i>	Sig.	
Mean PSES	0-3	.978	112	.058	
	4-9	.994	135	.841	
	10+	.985	87	.435	
		Skewness	Std. Error	Kurtosis	Std. Error
Mean PSES	0-3	-.275	.228	-.703	.453
	4-9	-.018	.209	.246	.414
	10+	-.328	.258	.047	.511
		What is your gender?			
		Shapiro-Wilk			
		Statistic	Df	Sig.	
Mean PSES	Male	.991	183	.300	
	Female	.995	151	.922	
		Skewness	Std. Error	Kurtosis	Std. Error
Mean PSES	Male	-.219	.180	-.042	.357
	Female	-.104	.197	-.081	.392

Table 7

*Normality Tests for Demographic Variables*

Is your school in Title I "improvement status"?		Shapiro-Wilk			
		Statistic	<i>df</i>	Sig.	
Mean PSES	Yes	.991	127	.629	
	No	.994	206	.582	
		Skewness	Std. Error	Kurtosis	Std. Error
Mean PSES	Yes	-.110	.215	.251	.427
	No	-.185	.169	-.184	.337
What is your school's percentage of students who qualify for free or reduced meals?		Shapiro-Wilk			
		Statistic	<i>df</i>	Sig.	
Mean PSES	0-25	.970	45	.292	
	26-50	.990	123	.538	
	51-75	.990	100	.702	
	76+	.987	65	.729	
		Skewness	Std. Error	Kurtosis	Std. Error
Mean PSES	0-25	.061	.354	-.746	.695
	26-50	-.104	.218	-.432	.433
	51-75	-.323	.241	.184	.478

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76+	-.142	.297	.541	.586
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### Analysis of Principal Self-Efficacy Beliefs

Descriptive statistics for scores on the Principal Self-Efficacy Scale (PSES) and the sublevel constructs appear in Table 8. The PSES survey consists of 18 questions which are rated by the principal on a Likert scale of 1 through 9, with 1 representing “None at All” and 9 representing “A Great Deal”. The scale is divided into constructs, with each construct having six questions. The descriptive statistics in Table 8 represent the scores for the overall PSES mean and each construct mean.

Table 8

*Descriptive Statistics for DV, Subscale DVs Principal Sense of Efficacy Scale Scores*

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Construct and Subscales	<i>N</i>	Minimum	Maximum	Mean	<i>SD</i>	Skewness	Kurtosis		
		Statistic	Stat.	Stat.	Stat.	Stat.	<i>SE</i>		
						<i>SE</i>	Stat.		
							<i>SE</i>		
Principal Efficacy	336	3.83	9.00	6.61	.87	-.171	.133	-.048	.265
Efficacy for Management	336	2.33	9.00	5.81	1.24	-.201	.133	-.303	.265
Efficacy for IL	336	3.83	9.00	7.03	.97	-.304	.133	-.037	.265
Efficacy for ML	336	4.83	9.00	6.97	.93	-.097	.133	-.446	.265

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*Note.* *N* = the total respondents after removal of noted respondents who skipped several questions. Management, Instructional Leadership (IL) and Moral Leadership (ML) are subscales of the Principal Self-Efficacy Scale (PSES).

The data were analyzed by SPSS version 23. The standard deviation for the average scores on the PSES ranged from .87 for the PSES mean to 1.24 for the subscale PSES for Management. This variability is similar to results from previous use of this scale in which Autry (2010) found a range of .79 to 1.09. The PSES mean score of 6.61 is similar to the mean found in Tschannen-Moran and Gareis' study (2005) for Principals Efficacy, which was 6.99 with a *SD* of .90 and a sample of 558 principals. Autry's (2010) study found a higher PSES mean at 7.46, however there were only 14 principals in her sample.

There were five outliers identified in the data when running normality tests for PSES and the primary research question: "Do I believe I will successfully implement TPEP in my school?" The outliers were specifically noted the box plots and due to mean PSES scores falling outside the box plot maximum and minimum values. Outliers do affect the assumptions for point-biserial correlations, however it is likely that these outliers do represent the population. The researcher ran tests for normality before and after trimming the outliers, but the means, standard deviations and normality statistics did not significantly change. The decision to leave these few outliers in the data is based on the expectation that some respondents may believe they are at the highest or lower point on the range of responses on the 9-point Likert scale; therefore it is not likely that the data were incorrectly entered. According to Field (2013), if the test results do not significantly change when trimmed, then the outliers can be left in the data (Field, 2013).

### **Initial Research Question**

The respondents to question 1 "Do Washington State principals believe they will be successful in implementing TPEP in their school?" responded with 91.07% responding

“yes”. The hypothesis was that less than 50% would respond “yes”. This prediction was incorrect. Initially, the hypothesis included a concept of “fidelity”, which has a different connotation than “successfully”. These terms will be discussed in chapter five. Principal responses are summarized below in Table 9.

Table 9

*Do you believe you will be successful in implementing TPEP in your school?*

Answer Choices	Percentage	Responses
Yes	91.07	306
No	8.93	30
Total		336

*Note.* There were 346 total survey responses and 336 responded to question 21; 10 respondents skipped this question.

A Pearson product moment analysis was used to test for correlation between the mean PSES score and the demographic and personal characteristics. In this study, the PSES is a Likert scale, which is typically considered ordinal but may be treated as interval in social science research. In the case of the PSES, it is a 9-point scale. The analysis of data reveals this scale behaves normally to interval data even though the measurements between points are not a specific distance. A Pearson correlation was used because the data were determined to be normally distributed and this parametric test was appropriate. This test enables the relationship between two variables to be measured in terms of strength, which results in Pearson’s  $r$ . Other options for testing the linear relationship between variables would be the Spearman’s Rho or Kendall’s Tau, however



these tests would be used when assumptions have been violated for normality in the data and it is considered non-parametric. Consequently, the Pearson correlation was used.

**Research Hypothesis 1.** Principals' self-efficacy belief as measured by the PSES score will show a statistically significant ( $p < .05$ ) positive correlation with in their belief that they can successfully implement TPEP in their school.

There was a small correlation between the PSES score and their belief that they can successfully implement TPEP in their school ( $r = -.222, n = 336, p < .001$ ). The correlation ( $r = -0.22$ ), is statistically significant at the 0.01 level (two tailed), may be interpreted as a small positive correlation between the PSES and belief that they can successfully implement TPEP in their school (this sign is reversed because yes is coded 1.0 and no is coded 2.0). However, the correlation is statistically significant ( $p < .001$ ) and should not be attributed to chance. Therefore the null hypothesis  $H_0$  can be rejected. The results are presented in Table 9.

**Research Hypothesis 2a.** Principals' self-efficacy belief as measured by the PSES score will show a statistically significant ( $p < .05$ ) positive correlation with personal factors of total years as principal at the same school.

There was no correlation between the PSES score and personal factors of total years as principal at the same school ( $r = .020, n = 336, p = .712$ ). Therefore the null hypothesis  $H_0$  cannot be rejected.

**Research Hypothesis 2b.** Principals' self-efficacy belief as measured by the PSES score will show a statistically significant ( $p < .05$ ) positive correlation with personal factors of gender.

There was no correlation between the PSES score and gender ( $r = .046$ ,  $n = 336$ ,  $p = .398$ ). Therefore the null hypothesis  $H_0$  cannot be rejected.

**Research Hypothesis 3a.** The PSES scores will positive and significantly correlate ( $p < .05$ ) to the school principals working at Title I designated schools in “improvement status”.

There was no correlation between PSES score and Title I ( $r = .106$ ,  $n = 336$ ,  $p = .053$ ). Therefore the null hypothesis  $H_0$  cannot be rejected.

### Research Hypothesis 3b

The PSES scores will positively and significantly correlate to the FRM rate of the school at which the principal serves.

There is no correlation between the PSES score and FRM rate ( $r = -.053$ ,  $n = 336$ ,  $p = .337$ ). Therefore the null hypothesis  $H_0$  cannot be rejected.

Table 10

#### *Correlations of variables with PSES score*

	Belief in successfully implementing TPEP	Years as head principal in current school.	Gender	Title I Improvement Status	FRM rates
Pearson Correlation	-.222**	.020	.046	.106	-.053
Sig. (2-tailed)	.000	.712	.398	.053	.337
<i>N</i>	336	336	334	334	335

Note. \*\*Correlation is significant at the 0.01 level (2-tailed). Other correlations are not statistically significant ( $p < .05$ ).

A Pearson product moment analysis was used to test the subscale mean scores for the subscale construct variables to each of the factors studied. Each of the subscale PSES

scores were positively correlated to their belief that they will successfully implement TPEP. The results were: Management PSES score and TPEP ( $r = -.196, n = 336, p < .001$ ), Instructional Leadership PSES score and TPEP ( $r = -.221, n = 336, p < .001$ ), and Moral Leadership PSES ( $r = -.130, n = 336, p = .017$ ). The results are presented in Table 11. The remaining correlation results are not presented in a table, since none of the remaining correlations were statistically significant ( $p < .05$ ).

Table 11

*Correlations of PSES subscale scores*

	Management PSES Subscale	Instructional Leadership PSES Subscale	Moral Leadership PSES Subscale
Pearson Correlation	-.196**	.221**	.130*
Sig. (2-tailed)	.000	.000	.017
<i>N</i>	336	336	336

Note. \*\*Correlation is significant at the 0.01 level (2-tailed). \*Correlation is significant at the 0.05 level (2-tailed).

**Comparison of Means**

An independent *t*-test was performed in SPSS using Analyze/Compare Means/Independent Samples with bootstrapping in order to further test the relationship between mean scores. The independent *t*-test is a parametric test and was used because the samples were independent of each other (were not repeated group tests), and because the data behaved normally. A non-parametric test option would have been the Mann Whitney test. The *t*-test enables a comparison of the means for the two samples. The results for the mean PSES score for “yes” and “no” and the primary research question

“Do Washington State principals believe they will be successful in implementing TPEP in their school?” were reported. There was a statistically significant difference in the mean scores for “yes” ( $M = 6.67, SD = .843$ ) and “no” ( $M = 5.99, SD = .891$ ) conditions;  $t(334) = 4.157, p < .001$ . These results suggest that principals who believe they will successfully implement TPEP in their school will also have a higher self-efficacy score.

Independent  $t$ -tests were performed and no significant difference in means were found for the following: “Years as head principal in current school” (0-3 to 4-9, 4-9 to 10+, and 0-3 to 10+), “Gender” (male and female), Title I “improvement status”, and FRM rates (0-25 to 26-50, 0-25 to 51-75, 0-25 to 75+, 26-50 to 75+, and 51-75 to 75+). There was a significant difference in the mean scores for FRM status of 26-50 ( $M = 6.77, SD = .83$ ) to 51-75 ( $M = 6.41, SD = .87$ ) with conditions  $t(223) = 3.196, p = .002$ . These results suggest that the FRM status of the school may result in differences in the PSES score of the principal with principals of schools in the 26-50 FRM rate resulting in higher scores than those in higher poverty schools at 51-75 FRM rate. The same results were found using a one-way ANOVA with a Levene statistic that is not statistically significant  $p = .991$  therefore the variance within the group is not significant as the data assumes normal distributions. However, the ANOVA results indicate there was a statistically significant difference at the  $p < .05$  level between groups [ $F(3, 326) = 2.854, p = .037$ ]. The  $t$ -test results are presented in Table 12 and Table 13.

Table 12

*T-test Comparison of Means Group Statistics (26-50 to 51-75)*

What is your school's percentage of students who qualify for free or reduced meals?			Bootstrap 95% Confidence Interval				
			Statistic	Bias	Std. Error	Lower	Upper
Mean PSES	26-50	<i>N</i>	124				
		Mean	6.7734	.0009	.0739	6.6313	6.9236
		S. Dev.	.83463	-.00435	.04389	.74325	.91655
			S. E. M.	.07495			
	51-75	<i>N</i>	101				
		Mean	6.4081	-.0018	.0856	6.2302	6.5843
		S. Dev.	.87423	-.00542	.06214	.75020	.99493
			S. E. M.	.08699			

Table 13

*Independent Samples t-test (26-50 to 51-75)*

		Levene's Test for Equality of Variances		t-test for Equality of Means						
		<i>F</i>	Sig.	<i>T</i>	<i>Df</i>	Sig. (2-tailed)	Mean Diff.	<i>SE</i> Diff.	95% Confidence Interval of the Difference	
									Lower	Upper
Mean PSES	Equal variances assumed	.000	.990	3.196	223	.002	.36528	.11428	.14007	.59049
	Equal variances not assumed			3.181	209.652	.002	.36528	.11483	.13892	.59164

**Analysis of Contribution of TPEP to PSES Score**

The positive correlation for “Do Washington State principals believe they will be successful in implementing TPEP in their school?” and the PSES score is small ( $r = .22$ ) and statistically significant ( $p < .001$ ). This significant simple correlation resulted in a value of by  $R^2$  where ( $R^2 = .049$ ). That is,  $R^2 = 0.49$  explains about 4.9% of the variation in the model. The  $F$ -ratio is 17.277, which is significant ( $p < .001$ ) but low and indicates that the model is not a good overall predictor for PSES score.

Table 14

*TPEP to PSES Model Summary*

Model	<i>R</i>	<i>R</i> Square	Adjusted <i>R</i> Square	Std. Error of the Estimate
1	.222 <sup>a</sup>	.049	.046	.84775

a. Predictors (Constant), Do you believe you will successfully implement TPEP in your school?

Table 15

*ANOVA: TPEP to PSES*

Model		Sum of Squares	<i>df</i>	Mean Square	<i>F</i>	Sig.
1	Regression	12.417	1	12.417	17.277	.000 <sup>b</sup>
	Residual	240.040	334	.719		
	Total	252.457	335			

a. Mean PSES

b. Do you believe you will be successful in implementing TPEP in your school?

**Additional Finding**

Only one other significant correlation existed in the data. The respondents to question, “If you were given the opportunity, would you select to become a building principal again?” responded with 76.05% responding “yes” and 23.95% responding “no”.

Principal responses are summarized below in Table 16.

Table 16

*If you were given the opportunity, would you become a building principal again?*

Answer Choices	Percentage	Responses
Yes	76.05	254
No	23.95	80
Total		334

*Note.* There were 346 total survey responses and 334 responded to question 23; 12 respondents skipped this question.

A Pearson product moment analysis was used to test for correlation between the mean PSES score and the variable “If you were given the opportunity, would you select to become a building principal again?” There was a small positive correlation between the PSES score and if principals would select to become a principal again,  $r = .387$ ,  $n = 334$ ,  $p < .001$ .

Table 17

*Pearson Correlation: If you were given the opportunity, would you select to become a building principal again?*

		If you were given the opportunity, would you select to become a building principal again?
Mean PSES	Pearson Correlation	-.387**
	Sig. (2-tailed)	.000
	<i>N</i>	334

\*\* Correlation is significant at the 0.01 level (2-tailed).



Table 18

*Independent Samples t-test for Mean PSES and “If you were given the opportunity, would you select to become a building principal again?”*

		Levene’s Test for Equality of Variances		t-test for Equality of Means						
		F	Sig.	T	Df	Sig. (2- tailed)	Mean Diff.	S. E. Diff.	95% Confidence Interval of the Difference	
									Lower	Upper
Mean PSES	Equal variances assumed	.082	.775	7.654	332	.000	.78800	.10295	.58548	.99052
	Equal variances not assumed			7.469	127.54 1	.000	.78800	.10550	.57924	.99676

Table 19

*Model Summary: PSES and Principal Again?*

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.387 <sup>a</sup>	.150	.147	.80303

a. Predictors (Constant), If you were given the opportunity, would you select to become a building principal again?

Table 20

*ANOVA: PSES and Principal Again?*

Model		Sum of Squares	<i>Df</i>	Mean Square	<i>F</i>	Sig.
1	Regression	37.777	1	37.777	58.583	.000 <sup>b</sup>
	Residual	214.090	332	.645		
	Total	251.867	333			

a. Mean PSES

b. If you were given the opportunity, would you select to become a building principal again?

The model indicates that a small correlations exists with  $R^2 = .150$ , which accounts for 15.0% of the PSES score.

### Summary

Chapter Four described the results of the analysis of the principal survey data. The key findings included:

1. The vast majority of the principals (91.07%) reported that they believed they will successfully implement TPEP in their schools.
2. There was a statistically significant correlation between the PSES score and whether principals believed they would successfully implement TPEP in their schools ( $r = -.222$ ,  $n = 336$ ,  $p < .001$ ).
3. There were no statistically significant correlations between personal or environmental (school demographics) variables and the PSES score.
4. There was a statistically significant difference in the mean PSES scores for principals in schools with 26-50% FRM compared to 51-75% FRM.

There was a significant difference in the mean scores for FRM status of 26-50 ( $M = 6.77, SD = .83$ ) to 51-75 ( $M = 6.41, SD = .87$ ) with conditions  $t(223) = 3.196, p = .002$ .

5. There was a statistically significant correlation between PSES score and the respondents to question, “If you were given the opportunity, would you select to become a building principal again?” ( $r = .387, n = 334, p < .001$ ).

Chapter Five will include conclusions related to these findings, including a discussion of the theoretical and practical implications of the study. Suggestions for modifications to the model, methods, and design as well as suggestions for further research will be discussed.

## **Chapter Five**

### **Discussion**

#### **Introduction**

The purpose of the research study was to determine to if principals believe they will successfully implement TPEP given the other requirements of the job. The study examined the degree principals PSES score correlated to their belief that they will successfully implement TPEP in their school. Finally, the study examined the relationship between personal and environmental variables of the principal or school and self-efficacy beliefs.

Chapter One discussed the importance of the role of the principal in terms of creating conditions for strong student achievement in schools. The chapter explained that the role of the principal has changed from a manager toward higher expectations that include expertise in instructional and leadership skills needed to improve the instructional ability of teachers (Kafka, 2009). Today's high accountability educational landscape has further defined the principal's performance in terms of student academic achievement on high-stakes assessments. This high pressure on performance has amplified the importance of the principal's sense of efficacy in meeting the expectations and demands of the position (Tschannen-Moran & Gareis, 2004). TPEP represents a theory of action aligned to the idea that the principal can use an instructional framework as a means to evaluate the work of teachers and create system improvement; that is, create better instructional practices within the school. This new system demands more knowledge and expertise from the principal. The methodology requires a four-tier system in eight categories resulting in a final evaluation score up to 32 points (Miller, 2014d). The concept of scores

is compared to the previous non-scored binary system (satisfactory or unsatisfactory), which adds a new level of time consuming evidenced-based detail to the evaluation process.

Chapter Two provided a summary of the literature beginning with social cognitive theory and the construct of self-efficacy. The work of Albert Bandura largely shaped current understanding of this construct, and his Triadic Reciprocal Causation model was discussed. In this study the three elements of the model were: (a) self-efficacy beliefs related to the implementation of TPEP, (b) personal factors of years as head principal of the school and gender of each public school principal, and (c) external environmental factors of Title One “improvement status” as well as Free and Reduced Meal rate of the school. The literature reviewed teacher and collective faculty self-efficacy and noted that these have been studied more frequently than principal self-efficacy. Prior research of principal self-efficacy was summarized as well as the historical development of survey tools to enable the measurement of principal self-efficacy. Relevant other studies were also discussed in the literature review.

### **Review of Research Questions and Hypotheses**

Chapter Three included a description of the methodology for the study including a discussion of how the sample for the population was achieved. The key research questions were defined and the hypotheses were stated. This research study sought to measure the self-efficacy of public school principals in Washington State and to determine the correlation of their self-efficacy score to their belief that they will successfully implement TPEP.

**Research questions.** Research questions were:

1. Do principals believe they will be successful in implementing TPEP in their school?
2. Does the principal's level of self-efficacy (PSES score) have a significant relationship to their belief that they will successfully implement the new Teacher Principal Evaluation Project (TPEP) in their own school?
3. Do principal personal or district demographic variables correlate to the level of principal self-efficacy as measured by the PSES?
  - a. Does the total years as a head principal at their present school correlate to level of principal self-efficacy?
  - b. Does the gender of the principal correlate to level of principal self-efficacy?
  - c. Does Title I improvement status, or non-Title I, designation correlate to the level of principal self-efficacy?
  - d. Does Free or Reduced Meal (FRM) rate correlate to the level of principal self-efficacy?
4. If statistically significant positive correlations exist, then what are the contributions of the personal and environmental variables on the PSES score?

**Hypotheses.** The research hypotheses related to these research questions were:

1. Principals' self-efficacy belief as measured by the PSES score will show a statistically significant ( $p < .05$ ) positive correlation with in their belief that they can successfully implement TPEP in their school.

2. Principals' self-efficacy belief as measured by the PSES score will show a statistically significant ( $p < .05$ ) positive correlation with personal factors of total years as principal at the same school and gender.
3. Principals' self-efficacy belief as measured by the PSES score will show a statistically significant ( $p < .05$ ) positive correlation to environmental factors including non-Title 1 and Free and Reduced Meal rates.

### **Review of Research Methods**

Chapter Three included a description of the research design and methodology used in the study, which included the use of a Web-based survey of school principals. Since certain personal and environmental variables were of interest, these were included as variables in this study. Also included were questions that were related to the three subscale domains of management (Question 19), instructional leadership (Question 21), and moral/ethical leadership (Question 20). Question 21 was the primary research question of TPEP implementation. The other questions were of interest but not part of primary purpose of the study. Question 22 was, "Do you have the support of your direct supervisor to effectively lead your school? Question 23 was, "If given the opportunity, would select to become a building principal again?"

The survey itself included the Principal Self-Efficacy Scale (PSES) survey developed by Tschannen-Moran and Gareis (2004). This 18-question survey was embedded into the 27-question survey and constituted the first 18 questions. As noted above, the additional questions provided the personal and environmental variables as well as the variable of TPEP implementation for each of the research questions and the

hypotheses. The survey used commonly known abbreviation for the Teacher Principal Evaluation Project (TPEP).

The survey allowed for the investigation of the correlations of the self-efficacy score to categorical responses to the personal factor variables of experience as head principal and gender as well as environmental variables of Title One “improvement status” and Free and Reduced Meal rates. After securing the approval of Seattle Pacific University Institutional Review Board, the publically available directory email list of school principals was downloaded to the researcher’s computer, and subsequently vetted. The survey was open for a total of 32 total days. Three requests were sent on the following dates: from November 10, 2015 through November 24, 2015, again from January 4, 2016 through January 15, 2016, and for a third time from February 7, 2016 through February 11, 2016.

### **Limitations of Current Study**

The study was intended to yield potentially meaningful information about the relationship of principal self-efficacy beliefs to the implementation of difficult principal tasks, specifically the implementation of the new Teacher Principal Evaluation Project. Additionally, the study was intended to yield information about the relationship that might have existed between these beliefs and specific personal and environmental factors that contribute to self-efficacy belief formation.

This study was not a causal study, but instead descriptive and correlational.

Limitations included:

1. The truthfulness and candor of the principals taking the survey was assumed but not verified. Although the respondents were advised that the



survey was anonymous, it is possible that some principals may have felt uncomfortable expressing their beliefs and opinions about their ability to successfully execute key job functions and tasks.

2. The professional preparation beyond years as a head principal was not a predictive variable included in this study. The preparation may have included degree types, degree majors, specific schools or colleges, specific certifications, or other professional experiences and these variables may have had an influence on the responses of participants.
3. The response rate to the first request was 9.2 percent and it required three requests over several weeks to get the moderate response rate of 26.3 percent. This moderate rate may have limited the degree to which the sample represents the population. The response rate and the limitations due to the nature of the survey type may limit the generalization of the findings.
4. The study assumed the familiarity with Web-based surveys and accessing those surveys online. It is possible that some potential respondents had difficulty accessing the survey depending on the filtering software.
5. The study assumed knowledge of TPEP and the requirements for successful implementation. Since the PSES was already a valid and reliable instrument, the web questionnaire was only piloted with a very limited group of principals and assistant principals with whom the researcher worked prior to sending. A more thorough pilot test may have contributed to additional clarity in the questions and subsequent findings.

### **Conclusions Regarding Principal Self-Efficacy Beliefs**

Research Question 1 concerned whether or not principals feel they will be successful in implementing TPEP. An overwhelming majority of principals (91 percent) believed they would successfully implement TPEP. The researcher categorized the TPEP as a difficult task in terms of implementation. In terms of self-efficacy score, Bandura's Triadic Reciprocal Causation model explains that those with high self-efficacy believe they can accomplish difficult tasks while those with lower self-efficacy believe they will not successfully accomplish difficult tasks. Conversely, as the implementation of TPEP is viewed as a very difficult task, Bandura's model also explains the difference in PSES score. The mean difference between those who responded "no" and those who responded "yes" to the Research Question 1 was statistically significant at the .001 level (two-tailed): "yes" ( $M = 6.67, SD = .843$ ) and "no" ( $M = 5.99, SD = .891$ ) conditions;  $t(334) = 4.157, p < .001$ . There was a small correlation between the PSES score and their belief that they can successfully implement TPEP in their school ( $r = -.222, n = 336, p < .001$ ). These results suggest that principals who believe they will successfully implement TPEP in their school will also have a higher self-efficacy score. In short, the prediction from social cognitive theory was supported by the data.

The first hypothesis related to this research question was that the principal self-efficacy score would be positively correlated to the predictive variable of whether they believed they would successfully implement TPEP. The results supported this hypothesis as principals' self-efficacy belief as measured by the PSES score showed a statistically significant ( $p < .05$ ) positive correlation with their belief that they would successfully implement TPEP in their school. Based on these results, the null hypothesis could be

rejected. These results were consistent with social cognitive theory that belief in goal attainability is related to a higher sense of self-efficacy.

This result may be different if measured after TPEP had been fully implemented. Since the survey was given in the midst of implementation, the principals responded with their prediction of how successfully they would implement TPEP. Although this mindset is predictive and aligns with social cognitive theory, the finding may be limited because some principals may in fact not be successful in implementing TPEP even if they predict that they will be. The question of the level of self-efficacy as a predictor of principal performance is not fully explored in this study. Is the principal competence more of the predictor of self-efficacy, or is self-efficacy a predictor of a higher level of principal performance. This is an area that will need to be studied further.

### **Conclusions Regarding Personal Factors Effect**

The second hypothesis was that principal self-efficacy would be positively correlated to personal factors of years as head principal at the school and gender. The results did not support this hypothesis. There was not a statistically significant correlation between the PSES score and personal factors of total years as principal at the same school ( $r = .020, n = 336, p = .712$ ), nor was there a statistically significant correlation between the PSES score and gender ( $r = .046, n = 336, p = .398$ ). Therefore the null hypotheses  $H_0$  cannot be rejected for personal factors of years as head principal and gender.

These factors were selected based on some previous research that suggested they might contribute to self-efficacy. According to Oplatka (2004) mid to late career stage principals have higher self-efficacy than early career stage principals related to instructional leadership. Autrey (2010) found that the longer a principal leads a school,

the higher the sense of efficacy. Gender related to self-efficacy has been statistically significant in other research on principal self-efficacy. According to Tschannen-Moran and Gareis, (2005) male principals reported higher self-efficacy (PSES scores) than female principals. Since the PSES was used, the prediction of higher self-efficacy in males was made. However, Smith et al. (2006) found a small correlation to instructional leadership as female principals scored higher on self-efficacy for instructional leadership than males. There are several possible reasons this null hypothesis was not rejected. One possible reason for this finding is related to a question of time devoted to instructional leadership and the subsequent knowledge of TPEP. Smith et al. (2006) reported that female principals report more time devoted to instructional leadership activities than male principals. This study did not include a question specifically asking about gender differences in time devoted to instructional leadership. It is possible that the time devoted to TPEP by both genders is spread among management and moral ethical leadership. The past research is mixed among the self-efficacy of each gender, and it is also possible TPEP is accounted for in all three subscales rather than simply limited to instructional leadership.

Another reason personal factors of years as head principal at the school and gender were not found have a statistically significant correlation in this study may have resulted from the survey design. Information received via survey is subject to under-representation or over-representation (Gall, Gall & Borg, 2007). Therefore it may be that there was a higher concentration of principals with higher self-efficacy who responded, thus making it difficult to find a statistically significant difference in these personal factors.

Another reason these two personal factors may not have resulted in a statistically significant finding may have been the context of this the study. The title of the study *Principal Self-Efficacy and the Teacher Principal Evaluation Project* may have introduced bias. The survey respondents were aware that this specific variable was being studied, and this may have influenced their responses to the PSES survey questions.

Bandura's model accounts for the reciprocal interaction of the behavior of the individual principal along with the influences of the determinants of personal factors in the form of cognitive, affective and biological events and the external environment (Bandura, 1986, 1997, 2009). The assumption that principals had full knowledge of the requirements of TPEP may also have contributed to a lack of finding of correlation. Given that TPEP is a new initiative, it is possible neither year as a head principal nor gender would be differentiated due to the incomplete or inconsistent statewide implementation. Schools may have been at different stages in implementation. For example, if a school district already fully implemented TPEP prior to the required implementation year of 2015-2106, then the principal may have already determined that they were or were not successful. Other districts may have been fully implementing in 2015-2016 and those principals would be at the same stage of learning about TPEP as other principals, regardless of their years as a head principal. This factor may have contributed to the finding that there was no correlation helping to explain why differences in personal factors of years as head principal at the school and gender may not have surfaced in this study.

### **Conclusions Regarding External Environmental Factors Effect**

The third hypothesis related to the research questions were that principal self-efficacy would be positively correlated to external environmental factors of Title One school improvement status and Free and Reduced Meal rates. The results did not support these hypotheses. There was not a statistically significant correlation between PSES score and Title I ( $r = .106, n = 336, p = .053$ ), nor was there a statistically significant correlation between PSES score and FRM rate ( $r = -.053, n = 336, p = .337$ ). There for the null hypotheses  $H_0$  cannot be rejected for Title One Improvement Status and FRM rates.

This finding is interesting as it is the opposite of that found by Smith et al. (2006), which reported principals at schools with higher free/reduced meal rates had higher self-efficacy. As with other findings, this finding may have resulted due to the survey design used for the study. There may have been under-representation or over-representation (Gall et al., 2007). Therefore it may be that there was a higher concentration of principals with higher self-efficacy who responded, thus making it difficult to find a statistically significant difference in these external factors.

However, there was a significant difference in the mean scores for FRM status of within the strands of 26-50 ( $M = 6.77, SD = .83$ ) to 51-75 ( $M = 6.41, SD = .87$ ) with conditions  $t(223) = 3.196, p = .002$ . These results suggest that the FRM status of the school may result in differences in the PSES score of the principal with principals of schools in the 26-50 FRM rate resulting in higher scores that those in higher poverty schools at 51-75 FRM rate. Research has varied in this area as research by Dimmock and Hattie (1996) found that gender and the socio-economic status (SES) of the students of

the school had no significant relationship to principal's sense of efficacy. In this case, a difference in the PSES score is not large and may relate to the limitation of survey research discussed earlier. The sample respondents may not be representative and may be over or under represented of the population. Consequently, this finding should be interpreted cautiously. However, the finding in this study suggests that the FRM status may have a sort of "sweet spot" in the middle of the FRM continuum, with a small contribution to the self-efficacy score of principals and may merit further investigation.

### **PSES Subscale Scores**

Further, each of the subscale PSES scores was positively correlated to their belief that they would successfully implement TPEP. The results were: Management PSES score and TPEP ( $r = -.196, n = 336, p < .001$ ), Instructional Leadership PSES score and TPEP ( $r = -.221, n = 336, p < .001$ ), and Moral Leadership PSES ( $r = -.130, n = 336, p = .017$ ). Although the subscales each have a small independent positive correlation, each area of responsibility contributes to the principal's belief that he or she would implement TPEP successfully. The overall scale begins at 1 (none) and ranges to 9 (a great deal). A score of 7 (quite a bit) is a high score on the PSES scale and a 5 (some) is in the middle. It should be noted that principals report higher self-efficacy for Instructional Leadership (7.02) than Moral Leadership (6.97) or Management (5.81).

This finding is consistent with other research using the PSES or similar scales to measure a principal's belief that they will complete a difficult task (McCullers, 2009; Smith et al., 2006; Tschannen-Moran & Gareis, 2004). TPEP is task specific in nature, although it is a comprehensive reform across all the subscale domains of the PSES. The subscale scores also are consistent with social cognitive theory that the principal's belief

in goal attainability is related to a higher sense of self-efficacy and supports PSES as an instrument to measure the public school principal's self-efficacy.

### **Validation of PSES**

Principal self-efficacy belief has remained an “elusive construct” in the view of Tschannen-Moran and Gareis (2004, p. 583), who developed the Principal Sense of Efficacy Scale (PSES). Compared to teacher self-efficacy, principal self-efficacy has been sparsely studied (Smith et al., 2006), who also developed their own instrument, the Principal Self-Efficacy Scale. This study sought to continue the validation of Tschannen-Moran and Garies' PSES by applying it to the TPEP initiative in Washington State. Although the positive correlations were small, the study resulted in statistically significant correlation data, and it has contributed to the validity of PSES.

The use of PSES as a tool to inform those who are preparing future principals or those who create professional development programs may benefit from the use of this instrument to aid in the analysis of principal self-efficacy and how this construct may contribute to the leadership capabilities of principals.

### **Additional Finding**

Only one other significant correlation existed in the data. The respondents to question, “If you were given the opportunity, would you select to become a building principal again?” responded with 76.05% responding “yes” and 23.95% responding “no”. There was a statistically significant small to moderate positive correlation ( $r = .387$ ,  $n = 334$ ,  $p = .000$ ). This study did not investigate a relationship between self-efficacy and burnout. Research reviewed reveals a connection between lower self-efficacy and the psychological stressors that contribute to burnout, lower job satisfaction and motivation



to quit (Federici & Skaalvic, 2012; Maslach, 2003; Stajkovic & Luthans, 1998). Table 16 and Table 17 report the results of whether principals would select to become a principal again and the correlation of that variable to the PSES score. The results reveal almost a quarter of the principals would not become a principal again. Further, there was a statistically significant correlation between this variable and the PSES score ( $r = .387$ ), which is higher than the correlation between TPEP and PSES.

This finding may have been due to the increased expectations placed upon principals. TPEP is a somewhat controversial initiative due to the TPEP final evaluation score that includes student growth measures (Miller, 2014c). This final score is required to be a factor in personnel decisions (Revised Code of Washington). Although the job stresses of the principal may have always been considered high, this new level of pressure may increase the likelihood of burnout, and subsequently result in more principals leaving the profession. The response to this question and the response to Question 22, where almost 16 percent of the principals reported that they did not have the support of their supervisor, suggest the need for the investigation of self-efficacy, TPEP, and burnout.

### **Relationship of the Current Study to Prior Research**

The social cognitive view of human behavior has and the construct of self-efficacy has been the basis of a large body of research. Bandura (1977) established the seminal theory around the construct. The Principal Self-Efficacy Scale (PSES) as developed by Tschannen-Moran and Gareis (2004) is a comprehensive, valid and reliable instrument. This study based the research questions on this solid theoretical ground and used this reliable tool in an effort to bring some additional knowledge to the likelihood

that principals will successfully implement a difficult change initiative, which has become a major job responsibility.

The research on measures of self-efficacy has been studied as early as the 1980s (Gibson & Dembo, 1984; Hillman, 1986). The operationalization of principal self-efficacy is quite a bit more recent as noted by Tschannen-Moran and Gareis (2004). Their 18-item scale was developed based on earlier work on teacher efficacy and their resulting principal self-efficacy scale resulted in the three subscales *Efficacy for Instructional Leadership, Management* and *Moral Leadership*. The resulting PSES explained 60 percent of the variance and resulted in a Cronbach Alpha of internal consistency at .91 (Tschannen-Moran & Gareis, 2005). The decision to use the PSES was made based on the high consistency of the scale.

Studies have shown strong positive correlation between self-efficacy and work performance. The meta-analysis conducted by Stajkovic and Luthans (1998) found that 28 percent of work performance was attributed to an employee's task-specific performance. The relationship of this study to this prior research is the focus on a specific task such as the implementation of TPEP. Principals will likely feel more competent over time, after practicing and getting better at using the framework and completing evaluations. However, given the depth of knowledge required, the level of expectation may be more than some principals are able to perform. Consequently, the small correlation found in this study supports the importance of continuing to prioritize professional learning at the state, district, school and pre-service levels.

The previous research in the relationship between teacher and collective efficacy created the interest in this investigation. Goddard et al. (2004) stated, "One way for

school administrators to improve student achievement is by working to raise the collective efficacy beliefs of their faculties” (p. 502). A focus on the correlation between principal self-efficacy and TPEP as a theory of action to improve the instructional capabilities (mastery) of teachers provides a strong connection between this study and prior research.

### **Implications of Current Study**

The law requiring TPEP is in place. Regardless of how stakeholders feel about the potential success of TPEP in improving student achievement outcomes, the requirement to adopt a framework and evaluate teachers and principals through that framework are required for all school districts in 2015-2016. The results of this study indicate that an overwhelming percentage of school principals believe they will successfully implement TPEP in their schools with just over 91 percent responding “yes”. There was a positive correlation between the PSES score and TPEP ( $r = -.222, n = 336, p < .001$ ). Although this correlation is small, it does help validate the PSES instrument and provides additional evidence that this tool is a valid tool for measuring the construct of principal self-efficacy. This response may mean that TPEP is not perceived as a very challenging change initiative. However, it is also possible that the interpretation of the term “successfully” may be problematic. Principals may view this term on a range or scale. For example, does successfully mean meeting minimum time requirements in the classroom, or something more. Originally, the researcher was interested in using the term “fidelity” in terms of implementation of TPEP. This term was also viewed as problematic. Hence, it is difficult to make any conclusive statements other than a very high percentage of the principals believe they will implement TPEP successfully.

## **Response Rate**

The response rate of 26.3 percent is relatively similar to other online surveys. According to Gall et al. (2007) this rate may have been improved if the researcher would have pre-contacted the respondents before sending the survey. The survey was sent three times, and this resulted in an increase in the responses each time. It is possible that a fourth request may have increased the responses again, however, the researcher determined that once a reasonable return rate of 25 percent was reached, then he would analyze the results. This decision was a factor of limited time to complete the survey rather than desire for a higher rate. Since TPEP was in its first required year of full implementation, the researcher did not want to wait until the process was complete in the later spring before analyzing the results. The research question asked principals if they feel they will successfully implement TPEP as opposed to did they successfully implement TPEP.

These results should be interpreted cautiously, however, since an anonymous survey may be subject to under or over representation (Gall et al., 2007). A limitation with the selected survey methodology may have been that more principals with higher self-efficacy responded to the survey, while many principals with lower self-efficacy decided not to participate. This sort of bias may contribute to the idea that principals who have a generally high sense of self-efficacy are confident that they will accomplish any task, even the most challenging tasks. These results may help to understand that TPEP as a variable perceived by principals as an external determinant within the Triadic Reciprocal Causation model of Bandura, but may not help understand if TPEP is

perceived by principals as an unreasonable change initiative in Washington State. In fact, the opposite may be true.

### **Principal Preparation and Development**

The implications for practice may be applied to the implementation of the Teacher Principal Evaluation Project (TPEP) in Washington State. Further, thoughtful preparation of future administrators and development of active administrators should include strong self-efficacy paradigm in that professional development. Attention to the construct of self-efficacy may help to improve implementation of TPEP and other change initiatives, and in turn may help provide stronger instructional leadership for public schools.

Principals remain burdened with a heavy load in terms of instructional leadership related to TPEP. Although this study identified few principals who believed that TPEP is an initiative that is not likely to be implemented successfully, there is significant challenge associated with its implementation when balancing with other duties required of principals. As policy makers continue to seek policies to improve student achievement through more effective teachers, it is important to realize that principals may struggle with management. The overall lower PSES subscale scores shown in Table 8 reveal that principals report the highest self-efficacy for instructional leadership (7.03), while their score for management is the lowest (5.81). One potential outcome may be that policy makers may seek additional staffing as support for principals to enable them to feel more self-efficacious in management tasks, thereby freeing more time to support time working with teachers to improve instruction.

This study provided evidence that principals overwhelmingly believe they will implement TPEP successfully. This study also provided evidence that there is a small

correlation between the belief principals would successfully implement TPEP and their self-efficacy score.

## **Discussion**

The basic assumption of social cognitive theory is that learners draw out information from observing the behaviors of others, and then make decisions about which of these behaviors to accept and perform. Their self-efficacy develops through a combination of mastery, vicarious, emotional and physiological experiences (Bandura, 1997; Richey et al., 2011). Consequently, the influence one has on his or her sense of efficacy is an important ingredient in the determination of their beliefs and actions as linked to distinct realms of functioning (Bandura 1997, 2009).

The findings in this study revealed a small positive correlation. The correlation ( $r = -0.22$ ), is statistically significant at the 0.01 level (two tailed), may be interpreted as a small positive correlation between the PSES and belief that they can successfully implement TPEP in their school (this sign is reversed because yes is coded 1.0 and no is coded 2.0). This finding should be interpreted cautiously, as discussed in the limitations, the response rate was moderately low (26.3 percent), and the sample may not accurately represent the general population of principals.

Bandura (2000) proposed three specific approaches for developing self-efficacy in leaders. First is guided mastery, which includes both the vicarious learning as well as independent practice that results in mastery. The consideration of instructive modeling designed to acquire skills related to TPEP is informed by this study. The second is cognitive mastery, which would support cognitive development centered on the instructional frameworks and related considerations for implementation. The third is

individual self-regulatory practices that could be part of an ongoing local professional development process as well as part of the certification and continued certification for principals. Principal preparation and development programs should apply Bandura's principals to these programs as they seek to develop school leaders.

This study contributes in a small way to the body of research that explains social cognitive theory and the operational use of PSES as an instrument to measure public school principal self-efficacy. Self-efficacy in the context of the school principal is important because high self-efficacy is predictive of performance (Pajares & Kranzler, 1995). The TPEP implementation may continue to be a difficult, even political task. Principals with strong self-efficacy may be more likely to successfully navigate this difficult road, where those with low self-efficacy may seek to avoid this difficult work (Schunk & Richardson, 2011).

### **Recommendations for Future Research**

A sense of self-efficacy predicts the actions of people (Bandura, 1997). Consequently, the public school principal's sense of efficacy is an important consideration related to the effectiveness of leadership they provide. The educational community would benefit from learning more about principal self-efficacy given the increased demands being placed on principals to enact significant change (Kafka, 2009; Tschannen-Moran & Gareis, 2004).

This study was limited by the choice of a categorical "yes" or "no" for the successful implementation of TPEP. Future research may be designed to validate the survey further by using an interval scale instead. But, perhaps most intriguing is the difference in the subscale scores between Instructional Leadership (7.03) and

Management (5.81). This is an area that future research may yield important information that may contribute to factors designed to support higher self-efficacy for management, thereby increasing the overall self-efficacy of principals.

This study did not investigate the other influences on their self-efficacy that may have additional impact on their PSES score and expand on Paglis and Green's (2002) model related to antecedents to a leadership perception of their ability to implement change. As reviewed previously the four sources that inform self-efficacy are mastery experiences, vicarious experiences, social persuasions, and affective states (Bandura, 1986). Principals, either in-service or pre-service, should learn more about efficacy and the way it impacts their own actions as well as the faculty in their school. Future research in the area of professional development designed around Bandura's framework would likely serve to increase the principal's self-efficacy. Research in this area might be helpful to professional development.

This study included limited external influences, personal variables and environmental variables. As shown in Table 14, TPEP only accounted for 4.9 percent of the variance for this model where ( $R^2 = .049$ ). Consequently, there are other influences on the PSES score that may account for more of the variance. For example, this study did not investigate different elements that would be related to professional preparation, such as degree types, degree majors, specific schools or colleges, certifications (including revised principal certification types and standards), or other professional experiences. These personal characteristics may be useful in comparing the most effective preparation that leads to higher self-efficacy. In addition, the study of the organizational commitment to change along with the level of stress associated with the change might be studied. Such



an investigation may explain the difference in persistence among principals to implement TPEP or other change initiatives, which in turn might further develop Paglis and Green's model (Figure 3).

This study did not investigate teacher self-efficacy and faculty collective efficacy and the relationship between principal self-efficacy. However, according Witzers et al. (2003) there are studies that relate educational leadership to school culture, teacher behavior, and classroom practices, which are linked to student achievement. Also, although this study did not result in correlation between a principal's longevity at a school, other studies have found a positive correlation (Autrey, 2010). Since there have also been links established between teacher and collective faculty efficacy to student achievement, then further research on the relationship between principal self-efficacy and contributing to teacher and collective faculty efficacy may be a rich area for further research (Gibson & Dembo, 1984; Goddard et al., 2004; Ross & Gray, 2006).



## Appendix A

### Informed Consent

#### Principal Self-Efficacy and the Teacher-Principal Evaluation Project

##### Introduction

Welcome, and thank you for your interest! I am a doctoral student in the Seattle Pacific University Educational Leadership program and am conducting a research study for my dissertation.

##### Investigator

John A. Polm, Jr., who is a doctoral candidate at Seattle Pacific University in Seattle, Washington, is conducting this research. Mr. Polm can be reached at 360-535-4374 or at [john.polm81@gmail.com](mailto:john.polm81@gmail.com). Mr. Polm is employed by the Bremerton School District, but this research is solely his own and is not sponsored by his employer. Mr. Polm is working under the faculty advisor, Dr. Tom Alsbury who can be reached at 206-378-5099 or at [alsburyt@spu.edu](mailto:alsburyt@spu.edu).

##### Purpose

You have been invited to take part in a research study. The purpose of my study is to investigate the relationship between self-efficacy and various job functions and variables that includes implementing the new Teacher-Principal Evaluation Project (TPEP). This survey asks you to respond to various questions on a scale as well as in a yes or no format. It will take about 20 minutes to complete. You are being invited to participate because you are currently the principal of a public school in Washington State, and because principal beliefs about their ability to complete challenging tasks is the central focus of this research. In this study, principals with email contacts available from

Washington District Directory OSPI have been asked to participate. The survey will take approximately 20 minutes to complete. Your participation is invaluable to this study.

### **Procedures**

The study is an online survey with a total of 27 questions. The study is titled “Principal Self-Efficacy and the Teacher Principal Evaluation Project”. The questions are intended to examine your beliefs related to management, instructional leadership, and moral ethical leadership in your school. The primary survey instrument used in this study is the Principal Self-Efficacy Survey developed by Megan Tschannen-Moran and Christopher R. Gareis of The College of William and Mary in Williamsburg, Virginia. The Principal Investigator has written additional questions included in the survey.

### **Risks and Discomforts**

There are no known inherent risks in or discomforts in voluntarily completing this online survey.

A commercial online survey will be used, however, despite this effort, transfer of information across the Internet is not secure and could be observed by a third party. To varying degrees, this is fundamental aspect of all Internet activity and communications. If you choose to respond to this survey on a computer and/or network owned or accessible by a third party, such as your employer, then such persons may be able to view your responses. You may be able to increase your privacy protection by using a limited access computer and by closing your browser window after completing the survey.

### **Benefits**

There are no known direct benefits to completing this voluntary online survey. However, there may be benefits that emerge through a greater understanding of principal self-

efficacy.

### **Participation and Alternatives to Participation**

**Your participation is voluntary.** Your participation is important, but is voluntary. You are not required by OSPI or your district to participate. There is no penalty for not taking part, nor any benefit to taking part. Your participation is strictly for the purpose of the researcher's study, and you may decline to participate. If you do choose to participate, your responses will contribute to understanding about the beliefs principals about completing challenging job-related tasks.

### **Confidentiality**

The information in the study records will be kept confidential. It is the intent of the researcher that your participation and your responses be anonymous. This means that no one will know that the information you give came from you. The researcher will make no attempt to personally identify respondents. Data will be kept securely and only available to the researcher(s) conducting the study. No reference will be made in oral or written reports that could link you to the study. The de-identified data may be used for future research, presentation, or for teaching purposes by the Principal Investigator listed above.

### **Subject Rights**

If you have questions at any time about the study or procedures (or if you experience adverse effects as a result of participating in this study), you may contact the Principal Investigator Mr. Polm who can be reached at 360-535-4374 or [john.polm81@gmail.com](mailto:john.polm81@gmail.com). If you have questions about your rights as a participant, contact the SPU Institutional Review Board Chair at 206-281-2201 or [IRB@SPU.edu](mailto:IRB@SPU.edu).

### **How to Participate (Consent)**

If you wish to participate in the study and you confirm that you are 18 years of age or older, please click on the CONTINUE button below. By click on the CONTINUE button, you are affirming that you are at least 18 years of age and that you give your voluntary consent to participate in this study.

**Directions:** Please indicate your opinion about each of the questions below by marking one of the nine responses in the columns on the right side. 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. There are no right or wrong answers, so please answer all questions honestly. If you are unsure about how to answer a question then please choose what you feel is the best response. 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.

## Appendix B

## Principal Questionnaire

This 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 marking one of the nine responses in the columns on the right side. 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.**

"In your current role as principal, to what extent can you..."	None at All	Very Little	Some Degree	Quite a Bit	A Great Deal				
1. facilitate student learning in your school?	①	②	③	④	⑤	⑥	⑦	⑧	⑨
2. generate enthusiasm for a shared vision for the school?	①	②	③	④	⑤	⑥	⑦	⑧	⑨
3. handle the time demands of the job?	①	②	③	④	⑤	⑥	⑦	⑧	⑨
4. manage change in your school?	①	②	③	④	⑤	⑥	⑦	⑧	⑨
5. promote school spirit among a large majority of the student population?	①	②	③	④	⑤	⑥	⑦	⑧	⑨
6. create a positive learning environment in your school?	①	②	③	④	⑤	⑥	⑦	⑧	⑨
7. raise student achievement on standardized tests?	①	②	③	④	⑤	⑥	⑦	⑧	⑨
8. promote a positive image of your school with the media?	①	②	③	④	⑤	⑥	⑦	⑧	⑨
9. motivate teachers?	①	②	③	④	⑤	⑥	⑦	⑧	⑨
10. promote the prevailing values of the community in your school?	①	②	③	④	⑤	⑥	⑦	⑧	⑨
11. maintain control of your own daily schedule?	①	②	③	④	⑤	⑥	⑦	⑧	⑨
12. shape the operational policies and procedures that are necessary to manage your school?	①	②	③	④	⑤	⑥	⑦	⑧	⑨
13. handle effectively the discipline of students in your school?	①	②	③	④	⑤	⑥	⑦	⑧	⑨
14. promote acceptable behavior among students?	①	②	③	④	⑤	⑥	⑦	⑧	⑨
15. handle the paperwork required of the job?	①	②	③	④	⑤	⑥	⑦	⑧	⑨
16. promote ethical behavior among school personnel?	①	②	③	④	⑤	⑥	⑦	⑧	⑨
17. cope with the stress of the job?	①	②	③	④	⑤	⑥	⑦	⑧	⑨
18. prioritize among competing demands of the job?	①	②	③	④	⑤	⑥	⑦	⑧	⑨

19. Do you believe you will be successful managing the fiscal resources for which you are responsible? Yes or No

20. Do you believe you will be successful in managing the student discipline program in your school? Yes or No
21. Do you believe you will be successful in implementing TPEP in your school? Yes or No
22. Do you have the support of your direct supervisor to effectively lead your school? Yes or No
23. If you were given the opportunity, would you select to become a building principal again? Yes or No
24. How many years have you served as head principal of your current school? Select one: (0-3, 4-9, 10+)
25. What is your gender? Select one: Male or Female
26. Is your school in Title I “improvement status”? Select one: Yes or No
27. What is your school’s percentage of your students who qualify for Free or Reduced Meals? Select one: (0-25, 26-50, 51-75, 76+)

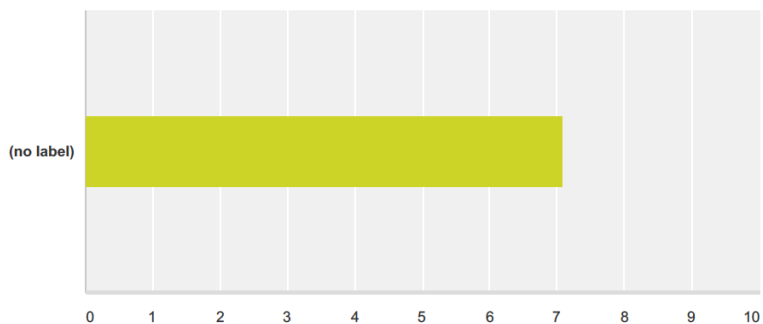
## Appendix C

### Questionnaire Results

#### Principal Self Efficacy

#### Q1 facilitate student learning in your school?

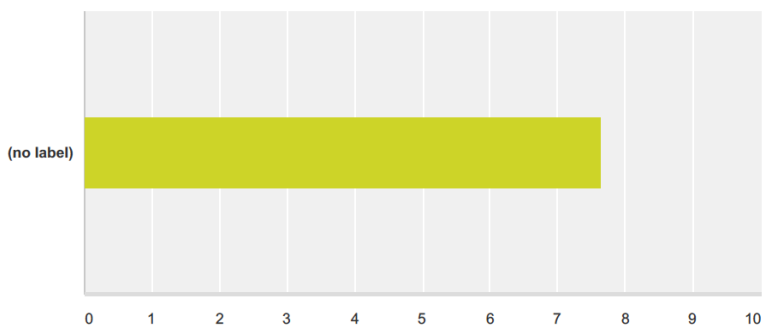
Answered: 346 Skipped: 0



	None at All	(no label)	Very Little	(no label)	Some Degree	(no label)	Quite a Bit	(no label)	A Great Deal	Total	Weighted Average
(no label)	0.00%	0.00%	1.16%	1.73%	13.87%	10.98%	36.42%	14.74%	21.10%	346	7.08
	0	0	4	6	48	38	126	51	73		

#### Q2 generate enthusiasm for a shared vision for the school?

Answered: 345 Skipped: 1

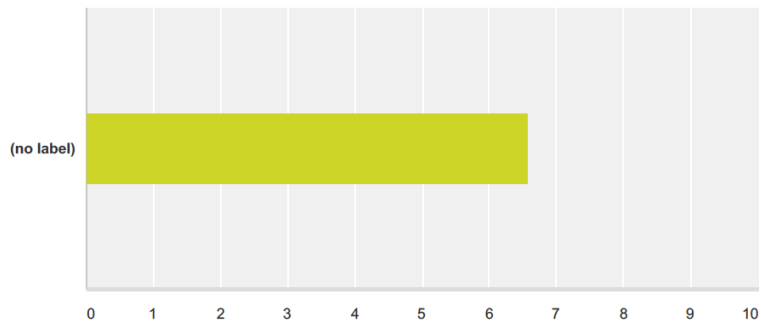


	None at All	(no label)	Very Little	(no label)	Some Degree	(no label)	Quite a Bit	(no label)	A Great Deal	Total	Weighted Average
(no label)	0.00%	0.00%	0.00%	0.29%	4.93%	9.28%	33.62%	18.55%	33.33%	345	7.65
	0	0	0	1	17	32	116	64	115		



### Q3 handle the demands of the job?

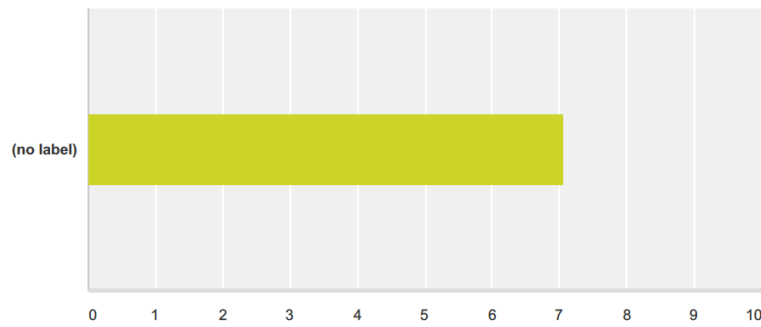
Answered: 342 Skipped: 4



	None at All	(no label)	Very Little	(no label)	Some Degree	(no label)	Quite a Bit	(no label)	A Great Deal	Total	Weighted Average
(no label)	0.00%	0.29%	3.51%	5.56%	18.13%	13.16%	31.58%	16.96%	10.82%	342	6.57
	0	1	12	19	62	45	108	58	37		

### Q4 manage change in your school?

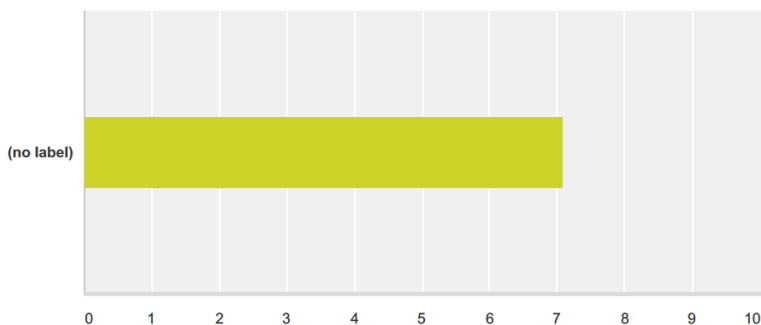
Answered: 339 Skipped: 7



	None at All	(no label)	Very Little	(no label)	Some Degree	(no label)	Quite a Bit	(no label)	A Great Deal	Total	Weighted Average
(no label)	0.00%	0.00%	0.88%	0.88%	10.62%	16.81%	37.17%	17.11%	16.52%	339	7.06
	0	0	3	3	36	57	126	58	56		

### Q5 promote school spirit among a large majority of the school population?

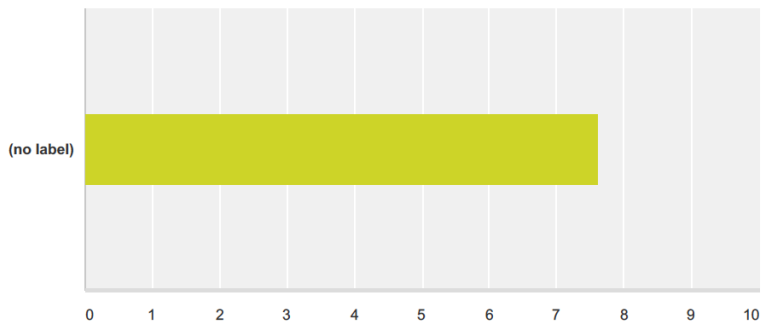
Answered: 342 Skipped: 4



	None at All	(no label)	Very Little	(no label)	Some Degree	(no label)	Quite a Bit	(no label)	A Great Deal	Total	Weighted Average
(no label)	0.29%	0.00%	0.88%	0.58%	11.11%	19.59%	31.87%	14.33%	21.35%	342	7.08
	1	0	3	2	38	67	109	49	73		

### Q6 create a positive learning environment in your school?

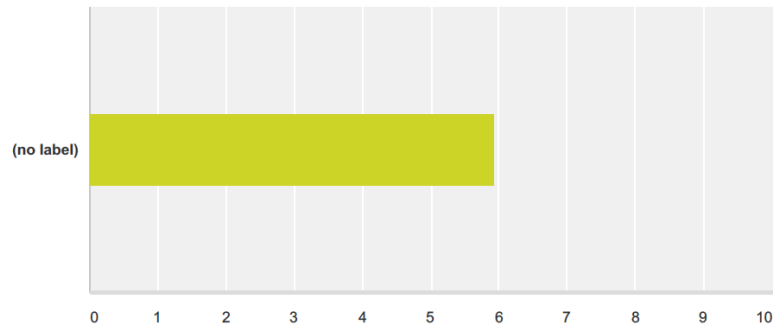
Answered: 341 Skipped: 5



	None at All	(no label)	Very Little	(no label)	Some Degree	(no label)	Quite a Bit	(no label)	A Great Deal	Total	Weighted Average
(no label)	0.00%	0.00%	0.29%	0.29%	3.52%	9.97%	33.72%	21.99%	30.21%	341	7.63
	0	0	1	1	12	34	115	75	103		

### Q7 raise student achievement on standardized tests?

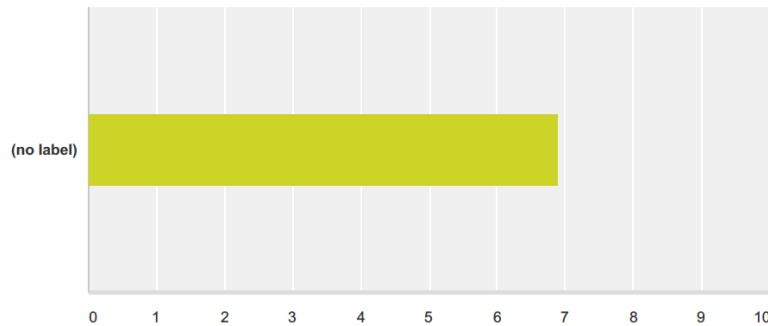
Answered: 340 Skipped: 6



	None at All	(no label)	Very Little	(no label)	Some Degree	(no label)	Quite a Bit	(no label)	A Great Deal	Total	Weighted Average
(no label)	0.00%	0.88%	4.12%	5.88%	30.29%	22.65%	25.88%	5.88%	4.41%	340	5.93
	0	3	14	20	103	77	88	20	15		

### Q8 promote a positive image of your school with the media?

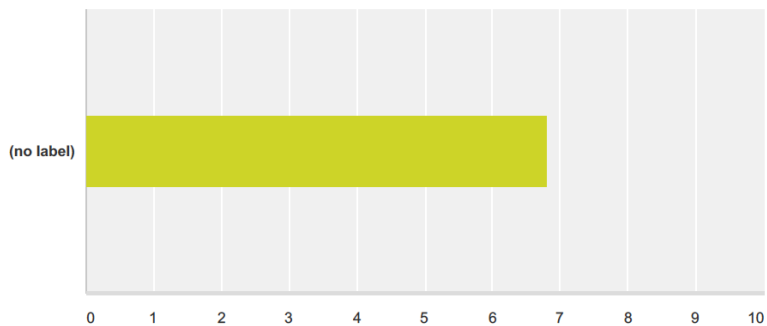
Answered: 339 Skipped: 7



	None at All	(no label)	Very Little	(no label)	Some Degree	(no label)	Quite a Bit	(no label)	A Great Deal	Total	Weighted Average
(no label)	0.29%	0.00%	4.13%	2.95%	14.75%	12.68%	27.43%	17.70%	20.06%	339	6.88
	1	0	14	10	50	43	93	60	68		

### Q9 motivate teachers?

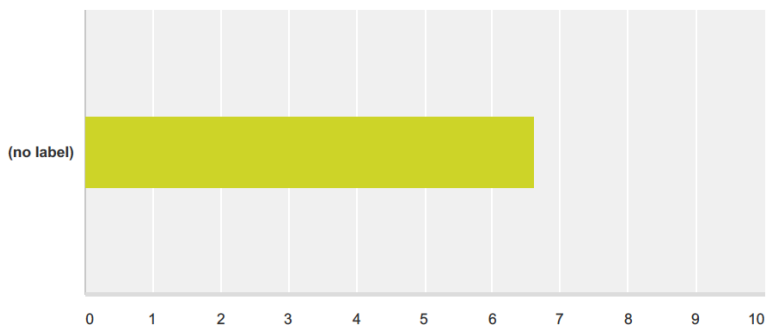
Answered: 339 Skipped: 7



	None at All	(no label)	Very Little	(no label)	Some Degree	(no label)	Quite a Bit	(no label)	A Great Deal	Total	Weighted Average
(no label)	0.00% 0	0.29% 1	0.59% 2	1.18% 4	13.86% 47	20.06% 68	39.23% 133	12.98% 44	11.80% 40	339	6.81

### Q10 promote the prevailing values of the community in your school?

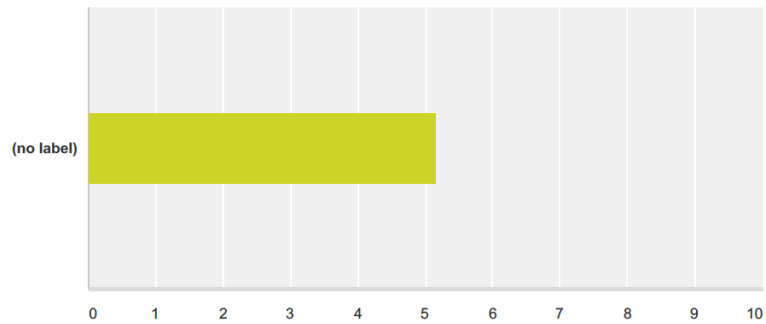
Answered: 339 Skipped: 7



	None at All	(no label)	Very Little	(no label)	Some Degree	(no label)	Quite a Bit	(no label)	A Great Deal	Total	Weighted Average
(no label)	0.00% 0	0.29% 1	2.95% 10	2.36% 8	15.34% 52	20.06% 68	35.99% 122	12.68% 43	10.32% 35	339	6.62

### Q11 maintain control of your own daily schedule?

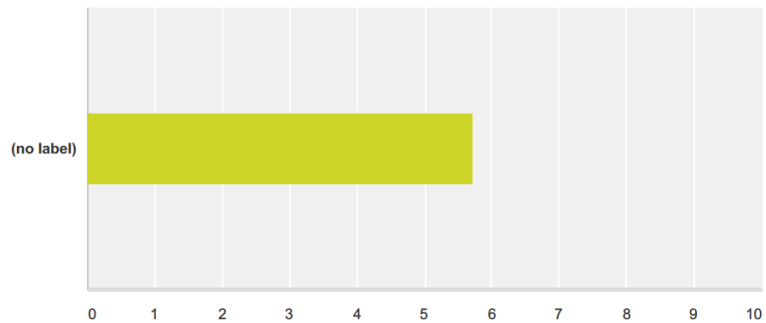
Answered: 339 Skipped: 7



	None at All	(no label)	Very Little	(no label)	Some Degree	(no label)	Quite a Bit	(no label)	A Great Deal	Total	Weighted Average
(no label)	1.18% 4	3.54% 12	15.63% 53	11.50% 39	30.38% 103	12.09% 41	17.99% 61	5.01% 17	2.65% 9	339	5.16

### Q12 shape the operational policies and procedures that are necessary to manage your school?

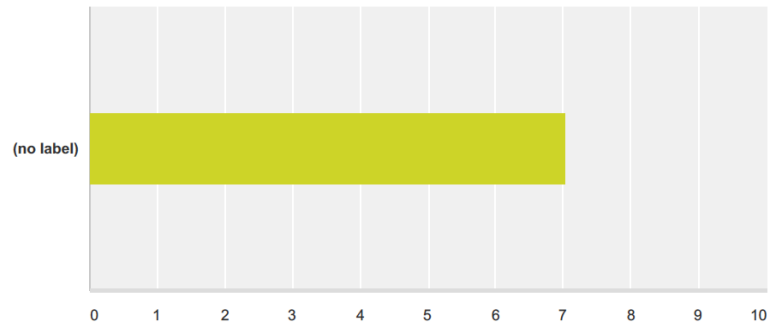
Answered: 338 Skipped: 8



	None at All	(no label)	Very Little	(no label)	Some Degree	(no label)	Quite a Bit	(no label)	A Great Deal	Total	Weighted Average
(no label)	0.30% 1	2.07% 7	9.17% 31	7.10% 24	27.51% 93	18.93% 64	22.49% 76	8.28% 28	4.14% 14	338	5.72

### Q13 handle effectively the discipline of students in your school?

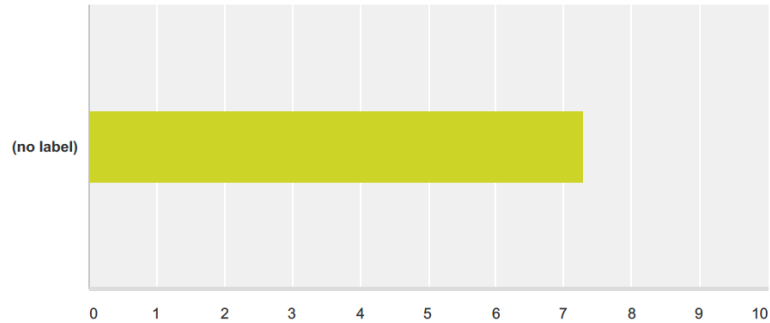
Answered: 338 Skipped: 8



	None at All	(no label)	Very Little	(no label)	Some Degree	(no label)	Quite a Bit	(no label)	A Great Deal	Total	Weighted Average
(no label)	0.00% 0	0.30% 1	1.48% 5	2.96% 10	8.88% 30	15.68% 53	34.62% 117	18.64% 63	17.46% 59	338	7.04

### Q14 promote acceptable behavior among students?

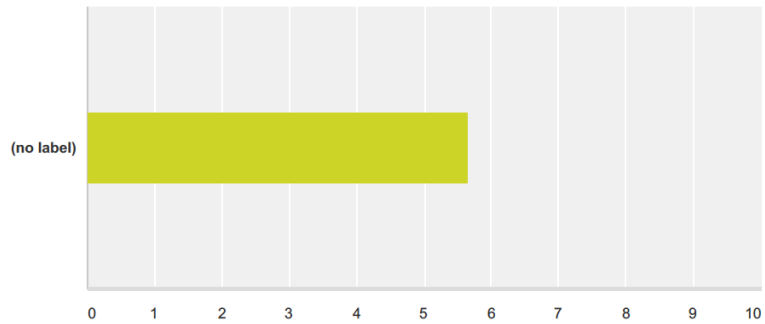
Answered: 335 Skipped: 11



	None at All	(no label)	Very Little	(no label)	Some Degree	(no label)	Quite a Bit	(no label)	A Great Deal	Total	Weighted Average
(no label)	0.00% 0	0.00% 0	0.30% 1	0.60% 2	5.97% 20	13.43% 45	41.19% 138	19.70% 66	18.81% 63	335	7.29

### Q15 handle the paperwork required of the job?

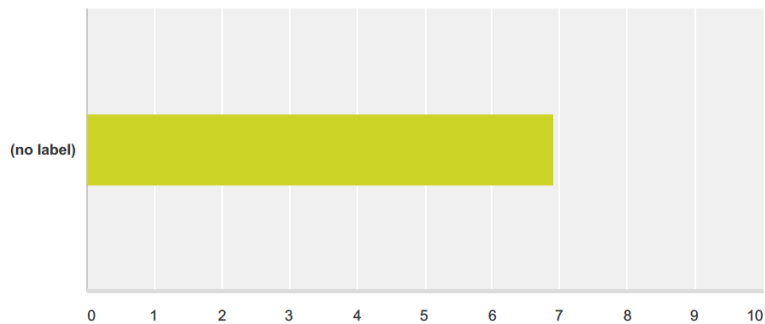
Answered: 336 Skipped: 10



	None at All	(no label)	Very Little	(no label)	Some Degree	(no label)	Quite a Bit	(no label)	A Great Deal	Total	Weighted Average
(no label)	0.00% 0	2.98% 10	7.44% 25	13.39% 45	24.11% 81	17.86% 60	21.43% 72	8.63% 29	4.17% 14	336	5.66

### Q16 promote ethical behavior among school personnel?

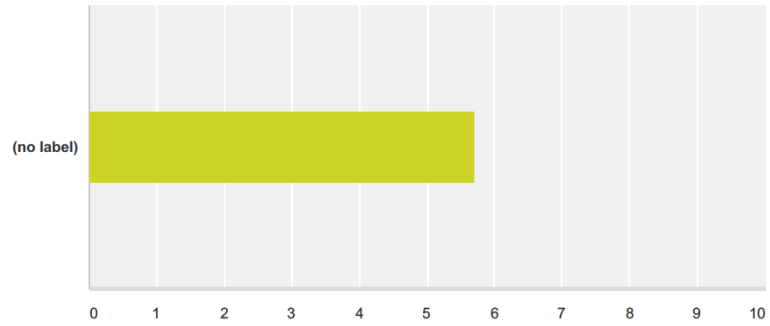
Answered: 337 Skipped: 9



	None at All	(no label)	Very Little	(no label)	Some Degree	(no label)	Quite a Bit	(no label)	A Great Deal	Total	Weighted Average
(no label)	0.00% 0	0.00% 0	2.37% 8	2.08% 7	11.57% 39	13.95% 47	39.47% 133	17.80% 60	12.76% 43	337	6.91

### Q17 cope with the stress of the job?

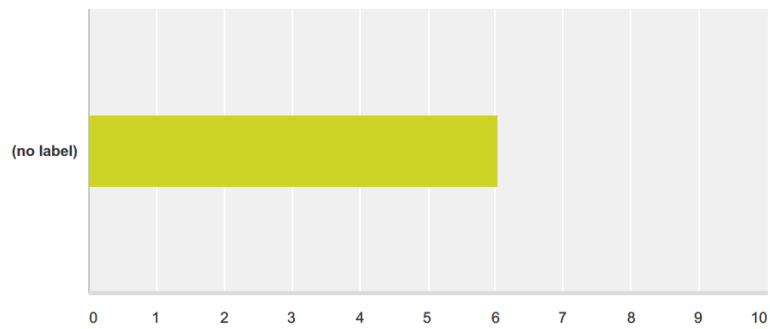
Answered: 337 Skipped: 9



	None at All	(no label)	Very Little	(no label)	Some Degree	(no label)	Quite a Bit	(no label)	A Great Deal	Total	Weighted Average
(no label)	0.89%	3.56%	4.75%	10.09%	26.41%	19.58%	24.33%	6.23%	4.15%	337	5.70
	3	12	16	34	89	66	82	21	14		

### Q18 prioritize among competing demands of the job?

Answered: 334 Skipped: 12

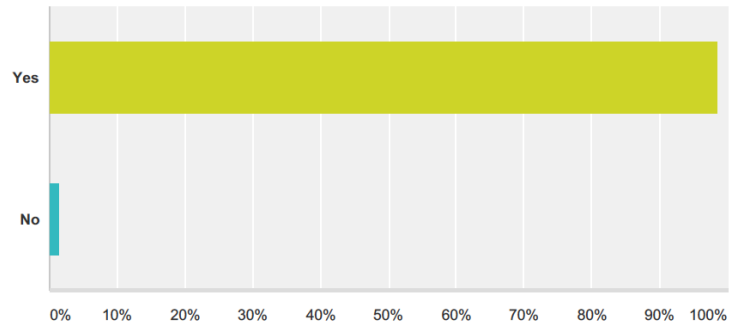


	None at All	(no label)	Very Little	(no label)	Some Degree	(no label)	Quite a Bit	(no label)	A Great Deal	Total	Weighted Average
(no label)	0.30%	0.60%	5.99%	6.59%	23.65%	20.96%	29.04%	5.99%	6.89%	334	6.03
	1	2	20	22	79	70	97	20	23		



**Q19 Do you believe you will be successful managing the fiscal resources for which you are responsible?**

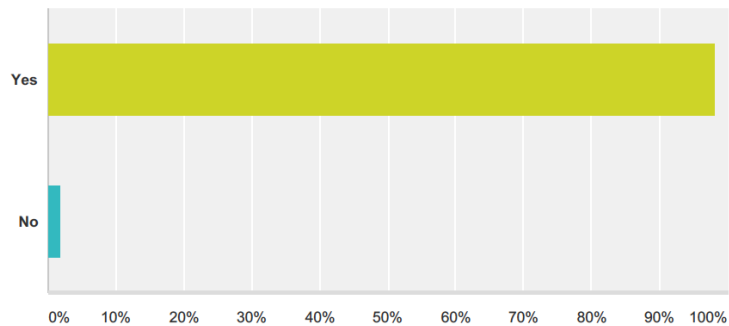
Answered: 336 Skipped: 10



Answer Choices	Responses	
Yes	98.51%	331
No	1.49%	5
<b>Total</b>		<b>336</b>

**Q20 Do you believe you will be successful in managing the student discipline program in your school?**

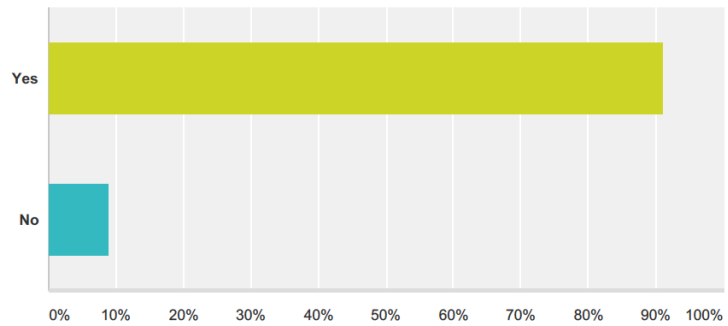
Answered: 334 Skipped: 12



Answer Choices	Responses	
Yes	98.20%	328
No	1.80%	6
<b>Total</b>		<b>334</b>

### Q21 Do you believe you will be successful in implementing TPEP in your school?

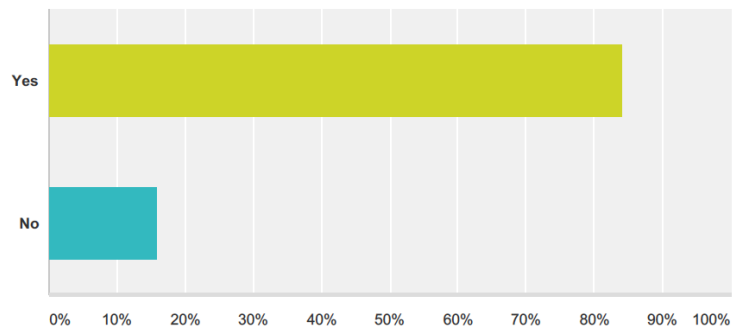
Answered: 336 Skipped: 10



Answer Choices	Responses	
Yes	91.07%	306
No	8.93%	30
<b>Total</b>		<b>336</b>

### Q22 Do you have the support of your direct supervisor to effectively lead your school?

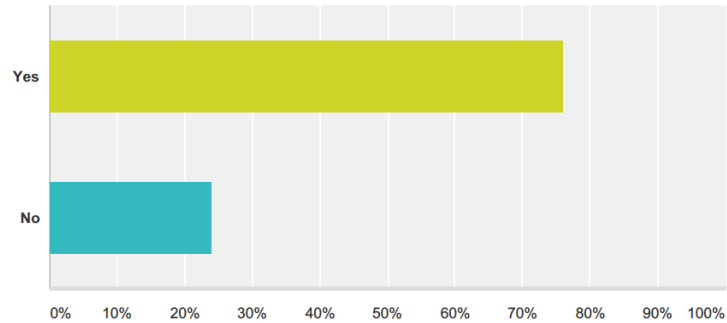
Answered: 334 Skipped: 12



Answer Choices	Responses	
Yes	84.13%	281
No	15.87%	53
<b>Total</b>		<b>334</b>

### Q23 If you were given the opportunity, would you select to become a building principal again?

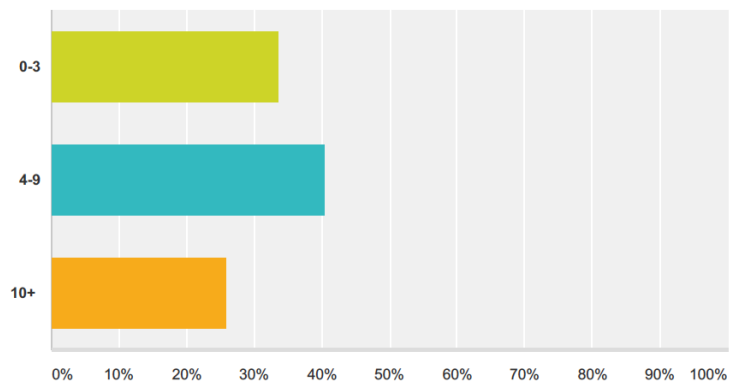
Answered: 334 Skipped: 12



Answer Choices	Responses	
Yes	76.05%	254
No	23.95%	80
<b>Total</b>		<b>334</b>

### Q24 How many years have you served as head principal of your current school?

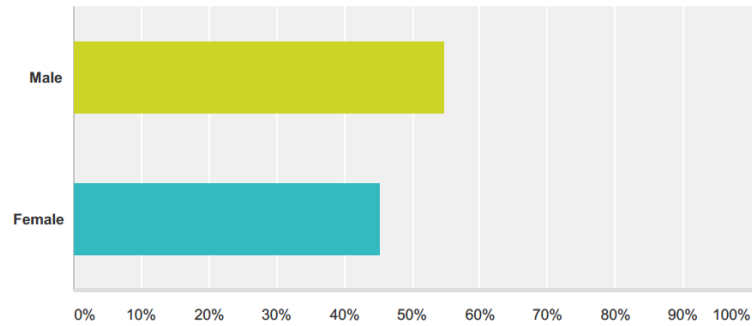
Answered: 336 Skipped: 10



Answer Choices	Responses	
0-3	33.63%	113
4-9	40.48%	136
10+	25.89%	87
<b>Total</b>		<b>336</b>

### Q25 What is your gender?

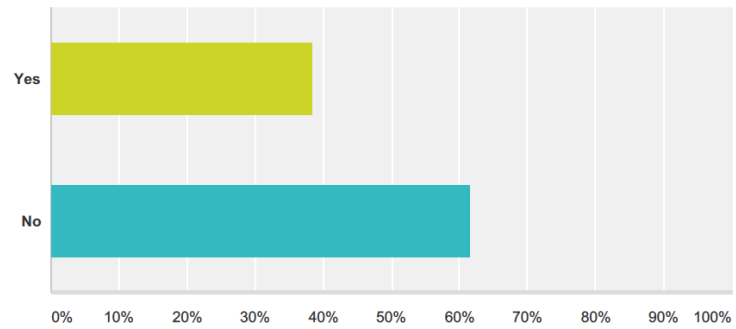
Answered: 334 Skipped: 12



Answer Choices	Responses	
Male	54.79%	183
Female	45.21%	151
<b>Total</b>		<b>334</b>

### Q26 Is your school in Title I "improvement status"?

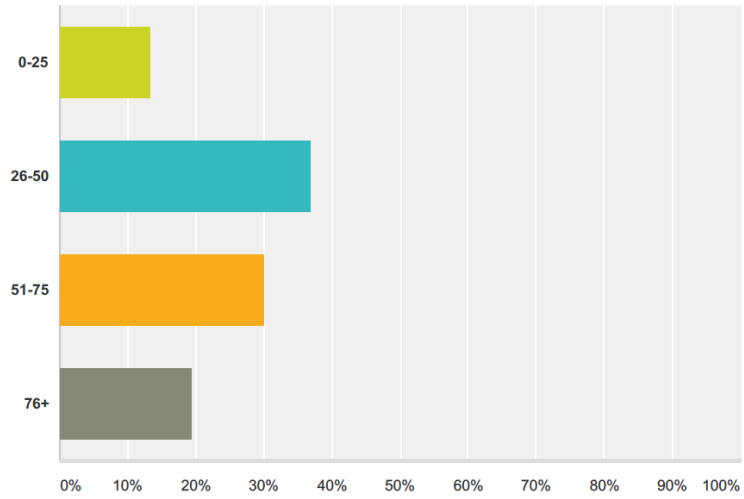
Answered: 334 Skipped: 12



Answer Choices	Responses	
Yes	38.32%	128
No	61.68%	206
<b>Total</b>		<b>334</b>

**Q27 What is your school's percentage of your students who qualify for free or reduced meals?**

Answered: 335 Skipped: 11



Answer Choices	Responses
0-25	13.43% 45
26-50	37.01% 124
51-75	30.15% 101
76+	19.40% 65
<b>Total</b>	<b>335</b>

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