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A STUDY ON THE IMPACT OF THE INDIANA PRINCIPAL LEADERSHIP INSTITUTE (IPLI)

A Dissertation

Presented to

The College of Graduate and Professional Studies

Department of Education Leadership

Indiana State University

Terre Haute, Indiana

In Partial Fulfillment

of the Requirements for the Degree

Doctor of Philosophy

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by

Benjamin Tonagel

July 2021

Keywords: Indiana Principal Leadership Institute, Principal Preparation, Educational Leadership, Leadership Capacity, Principal Professional Development, Leadership Coaching, School Improvement

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ABSTRACT

The purpose of this quantitative study was to investigate the impact of the Indiana Principal Leadership Institute (IPLI) on principal effectiveness and school culture, measured using the School Culture Survey (SCS). Principals who completed IPLI in one of the first three cohorts and their current staff members were invited to participate in the study. Descriptive statistics were used to learn more about the participants' current perceptions of school culture factors based on location type (i.e., suburban, urban, and rural) and school level (i.e., elementary and secondary). Inferential statistics were used to test two null hypotheses. The first null hypothesis stated that there was not a statistically significant difference on the six factors of school culture based on school location type. Based on the findings, this study determined that there was not a statistically significant difference based on school location type as measured by the scores of the six factors of school culture. The second null hypothesis stated that there was not a statistically significant difference between school levels and the six factors of school culture. Based on the findings, this study determined that there was a statistically significant difference between school levels in the area of unity of purpose. The composite score for unity of purpose was significantly higher for elementary participants than for secondary participants.

ACKNOWLEDGMENTS

"Ocian in view! O! the joy" (Ambrose, 1996, p. 310). These were the words spoken by Captain William Clark as the Corp of Discovery made the final part of their journey to the Pacific Ocean in 1805. The captain's story, as recorded in the journals of the expedition fascinate me, because of the thrilling, yet grueling, journey. Although very different in many obvious ways, I like to imagine the similarities between my Ph.D. journey and their historic journey across the continent. Both were exhausting, exciting, and full of uncertainty, yet worth it. As John Wooden used to say, "the journey is better than the inn," but I sure am glad to finally see my destination! As with Lewis and Clark's journey, my journey was not possible alone. Throughout the process many friends and colleagues provided support and encouragement which I am forever grateful. I am thankful to my committee composed of Dr. Steve Gruenert, Dr. Peter Linden, and Dr. Terry McDaniel. A special thanks to my chair, Dr. Brad Balch, for his incredible professionalism, support, and guidance. I want to thank Dr. Michael Langevin for guiding me through some of the most difficult parts of the program. A special thanks also goes out to Judith Barnes for her kindness, availability, and support.

A special note of gratitude goes out to my family including my parents, Hugh and Kathy Tonagel and my in-laws, Bob and Loralee Sensow. You played a vital role in helping me reach my destination, and I am thankful for your sacrifice, love, and support. To my three sons and daughter, I hope you watched my struggle through the journey and can better identify with the "chop wood, carry water" mantra that I am constantly preaching to you. To my wife, Amanda, I

owe a great deal of gratitude for the patience, unconditional love, and encouragement that you have shown to me. Thanks for sticking with me through it all.

I would also like to thank my friends and colleagues, Ben Anderson and Chris Alber, for their support and encouragement. Through the late nights, early mornings, and countless miles on the road, we stuck together on the journey. I would also like to thank Mr. Gene Alber for the constant prayers, encouragement, and feedback, as well as Judy Barnes for her editing help. Last and most important, I give praise to my Lord, Jesus Christ who is my rock, my fortress, and my deliverer.

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CHAPTER 1

INTRODUCTION

The study drew upon data from Indiana principals who had completed the Indiana Principal's Leadership Institute (IPLI). IPLI is a professional development program for Indiana principals to expand their leadership capacity to increase their school's effectiveness. The institute provides principals with training-in-action research and leadership practices. Principals are assigned to a regional cohort along with a qualified mentor, who supports the participants during the program (IPLI, 2018). The purpose of this quantitative research study was to quantify the impact of principal participation in the IPLI using the School Culture Survey (SCS). The study sought to understand the impact of the program on principal leadership and management capacity as it relates to school culture. Successful principal leadership requires a wide range of leadership capacities and qualities (Gurr, 2014). Effective principals transform schools through core leadership practices such as "setting directions, developing people, and redesigning the organization" (Leithwood et al., 2004, p. 8). A strong learning climate is shaped by principal leadership (Sebastian & Allensworth, 2012). Marzano et al. (2005) acknowledged that a culture can negatively or positively influence school effectiveness, and that school leadership can influence school culture to improve school effectiveness.

According to Burns (1978), "there are two types of leadership" (p. 22): transactional and transformational. Transactional leadership "occurs when one person takes the initiative in

making contact with others for the purpose of an exchange of valued things" (p. 55). Transformational leadership "occurs when one or more persons engage with others in such a way that leaders and followers raise one another to higher levels of motivation and morality" (Burns, 1978, p. 57). The school principal may be accurately portrayed as a transformational leader. The description of transformational leadership described by Burns supports the skills and responsibilities of principals that are necessary to improve schools and student learning. Marzano et al. (2005) "identified the correlation between principal leadership and student achievement" (p. 38) and noted how school leaders approach leadership differently depending on two "categories of change as first-order change and second-order change" (p. 66). Marzano et al. (2005) pointed out that first-order change can be viewed as change that happens in increments. Second-order change "alters the system in fundamental ways, offering a dramatic shift in direction and requiring new ways of thinking and acting" (Marzano et al., 2005, p. 66). The IPLI acts as an instrument for leadership transformation. Its conceptual model is shaped by the belief that as the capacity of a leader increases, the school's capacity to improve will also increase (IPLI, 2018). The results of this study will provide insight into the impact the IPLI is having on principal effectiveness in the State of Indiana as it relates to school culture.

Statement of the Problem

Because "principals are vital for ensuring student success" (Levin & Bradley, 2019, p. 20) and principal stability is critical for effective school leadership that helps ensure student learning, high principal turnover rates threaten school effectiveness. The use of IPLI may reduce principal turnover in Indiana schools by helping principals improve their leadership capacity to positively impact the school's ability to increase learning.

The responsibilities and duties of the principalship are complex, and principals use multiple paths to impact learning (Sebastian & Allensworth, 2012). Principals are positioned to exercise their leadership for school improvement (Seashore Louis et al., 2010). According to the U.S. Department of Education's National Center for Education Statistics, principal turnover occurs when principals move to positions at a different school or leave the principalship altogether (Goldring & Taie, 2018). Principal turnover can happen due to several reasons; there is not one type of exiting principal (Boyce & Bowers, 2016). A report by the National Association of Secondary School Principals (NASSP) and Learning Policy Institute cited inadequate support as one of the reasons principals turnover (Levin & Bradley, 2019). Principals have professional development needs (National Policy Board for Educational Admininstration [NPBEA], 2018). In the School Leader Collaborative (2018), the professional development needs of the principals are reflected in the following statement: "Instead of thinking of principals as just instructional leaders, we regard principals as learning leaders leading learning organizations" (p. 5). Principal turnover is detrimental to students and schools and incurs significant financial costs (Levin & Bradley, 2019). According to a report by the School Leaders Network (2014), the financial costs to replace a principal are modestly estimated at $75,000. Principal turnover is problematic for schools, teachers, and students (Levin & Bradley, 2019).

Effective school leadership is essential to school effectiveness (Marzano et al., 2005). Research indicated the "relationship between leadership and student achievement" (Waters et al., 2003, p. 2) is significant. Leithwood et al. (2004) concluded that among school-related factors, school leadership has the second biggest "impact on student learning" (p. 3). Researchers have sought to discover the learning impact of successful school leaders and found that "principals exercise a measurable, though indirect, effect on school effectiveness and student achievement"

(Hallinger & Heck, 1998, p. 186). Seashore Louis et al. (2010) claimed that "educational leadership can have strong, although indirect, effects on student learning" (p. 5). Researchers have also sought to understand the specific leadership behaviors or competencies that most effectively impact student achievement and found 21 responsibilities (Marzano et al., 2005). The findings from this research explain how school leadership practices connect to student achievement (Marzano et al., 2005) and can be used to support principal leadership development as a means to reducing principal turnover (School Leaders Network, 2014). In 2016–2017, almost 18% of principals moved to a different school, left the principalship, or were no longer at their school (Goldring & Taie, 2018). Seashore Louis et al. stated that an average school turns over a new principal about every three to four years. The research findings that support the significant role the principal has in improving learning underscores why principal support and stability are important. Principal turnover negatively impacts student learning and is even more disruptive to high-poverty schools (Grissom & Bartanen, 2019).

The School Leader Collaborative (2018) identified principal turnover as detrimental to school effectiveness and suggested that principals need time and improved skills to increase principal effectiveness. According to national data, annual principal turnover is 18% (Goldring & Taie, 2018). "Principal turnover can be disruptive to school progress" (Levin & Bradley, 2019, p. 3). In 2013 the Indiana General Assembly created legislation, Indiana Code (IC) 21-41-11-4 (2013), to support Indiana principal leadership in the form of the IPLI. The purpose of the IPLI is to support Indiana principals by increasing their personal leadership capacity and the effectiveness of their schools (IPLI, 2018). It is unknown how IPLI completion affects principal turnover in Indiana.

Purpose of the Study

The purpose of this quantitative study was to investigate the impact of the IPLI on principal effectiveness and school culture, measured using the School Culture Survey (SCS). Furthering knowledge of outcomes of the IPLI may inform district leaders, including superintendents and school boards, how to allocate financial resources to support principal leadership growth as a means to improve the culture in schools and school effectiveness in general. The research may also apprise the Indiana General Assembly and taxpayers about the state of Indiana's investment to support school leadership and improved student outcomes. According to the IPLI (2019), "The ultimate evidence to validate the continuation of IPLI is the impact on student achievement in our participants' scores" (p. 8). Given the empirical evidence regarding how leaders affect student achievement and how principal turnover negatively affects schools, this study may provide more strategies for how schools can retain principals so that the principals can make a greater difference in the schools they serve. As such, the independent variables for this study were IPLI principal participation organized by location type and school level. The dependent variables for this study were the composite scores of the six factors of the SCS survey. "The six main categories are collaborative leadership, teacher collaboration, professional development, unity of purpose, collegial support, and learning partnership" (Gruenert & Whitaker, 2015, pp. 84–85).

Significance of the Study

The results of this study may benefit the field of school leadership by providing guidance for improving support and retention for acting principals. Research indicated that principal leadership impacts student success and learning and that turnover can be disruptive to the role principals play in leading schools (Bartanen et al., 2019; Levin & Bradley, 2019). Principals,

who remain in the principalship while improving skills and growing professionally, can have a greater impact on school effectiveness and student outcomes. The study may also give aspiring or new principals and school leaders knowledge of evidence-based professional development and training to support school leadership that ultimately leads to more student learning. The research may give schools and communities an understanding of the importance of personal leadership capacity development, instructional leadership growth, leadership coaching, mentoring, collaboration and networking, and support as a mechanism to reduce principal turnover and to improve principal retention. The aforementioned leadership practices constitute the structure of the IPLI experience and conceptual framework (IPLI, 2018). Many stakeholders may benefit from knowing how IPLI impacts school leaders and the students they serve.

Research Design

The study is a quantitative examination of the topic which uses descriptive statistics and inferential statistics. The study analyzed SCS responses to determine how IPLI participation has impacted school culture. The study investigated differences in school culture among IPLI participants using demographic data. The first research question was answered with descriptive statistics that summarized and described the SCS composite scores of IPLI principals. The second question was answered using an analysis of variance (ANOVA). An ANOVA was appropriate because it is a test used to generate "the [main] effects of the independent variable" (Creswell, 2012, p. 326) on an outcome. In this study, a one-way ANOVA measured the effect of the independent variable (e.g., location type of IPLI principal participation) on the dependent variables (i.e., SCS composite scores). The third research question used an independent sample *t*-test to compare the elementary IPLI principals to the secondary IPLI principals.

Research Questions

This study was guided by the following research questions:

1. What are the current school culture levels of schools with a principal who completed IPLI and remains principal in their school as scored on the school culture survey?
2. Is there a statistically significant difference based on school location type as measured by the difference scores of the six factors of school culture?
3. Is there a statistically significant difference between school levels as measured by the difference scores of the six factors of school culture?

Limitations

First, not all principals who completed IPLI are still in their original schools and, therefore, could not be surveyed using the survey instrument. Teacher and principal turnover prohibited the ability to conduct a post analysis of IPLI principals who are no longer in their same schools using the SCS. Second, not all Indiana principals participated in the IPLI, and the reasons principals participate in the program may vary. This could be an issue since it could be possible that not all participants in IPLI may represent principals, who need leadership and school improvement training. Some principals may have self-elected to complete the IPLI program, and others may have been required to complete the program. Some IPLI participants may have already possessed strong leadership and collaborative school cultures. This could affect the outcome since the SCS measures factors that provide insight into school culture. Third, participation in IPLI may be dependent on financial factors since there is a financial component to participate. Principals, who need professional development in school leadership and school improvement in school districts that do not allocate funds towards professional development, would not be able to participate and, therefore, would affect the outcome of the program. The

study could be limited to participants who had the support of their district level administration. The study did not consider the participants' attitudes and/or commitment level to the program. Finally, the study may have been limited by the impact COVID-19 has had on schools and school leadership. COVID-19 may have dramatically changed the organizational structure and approaches to teaching (Gabrieli & Beaudoin, 2020). The factors of the SCS could be affected by COVID-19. For example, the outcome of *teacher collaboration* could be altered due to fewer opportunities for teachers to spend time planning or observing each other.

Delimitations

This study did not focus on principals from other states. The focus of this study was on Indiana principals, who participated in the IPLI, which at the time of the study was only available in the state of Indiana. Second, the study was delimited to the first three cohorts of IPLI. Cohort 1 had 56 principals, of which 22 were elementary principals, 15 were middle school/junior high principals, and 19 were high school principals. Cohort 2 had 57 principals, of which 26 were elementary principals, 11 were middle/junior high school principals, 10 were junior-senior high school principals, and 10 were high school principals. Cohort 3 had 62 principals of which 39 were elementary principals, 13 were middle/junior high school principals, two were junior-senior high principals, six were high school principals, and two were K–12 principals (IPLI, 2015). The rationale for studying these cohorts and not later cohorts was supported by the Wallace Foundation (2013), which suggested that principals need time to improve their schools. Gruenert and Whitaker (2015) asserted that cultural change takes time.

Definition of Terms

The following terms and definitions are essential to this study:

According to Marzano et al. (2005), c*ulture* refers "to the extent to which the leader fosters shared beliefs and a sense of community and cooperation among staff" (p. 48).

Indiana Principal Leadership Institute is a leadership academy created by Indiana legislators (IC 21-41-11-4, 2013) "to provide building-level principals with the skills and tools needed to increase their personal leadership capacities, as well as to increase the learning capacities of their schools" (IPLI, 2018, p. 4).

Influence is a social intelligence competency that "can cause changes without directly forcing them to happen; practices skills of networking, constructive persuasion and negotiation, consultation, and coalition building" (School Leader Collaborative, 2018, p. 6).

Leadership is a broad term used to describe two main purposes. Seashore Louis et al. (2010) suggested that "leadership can be described by reference to two core functions. One function is providing direction; the other is exercising influence" (p. 9).

Principal turnover refers to "principal attrition and mobility" (Goldring & Taie, 2018, p. 1) and can be organized in three categories: *stayers* who remain at the "same school from one year to the next" (Goldring & Taie, 2018, p. 6); *movers* who move "to a different school" (Goldring & Taie, 2018, p. 6); *leavers* who leave the principalship.

Summary and Organization of the Study

Chapter 1 introduced the quantitative study, identified the statement of the problem, and reviewed the purpose and importance of the study. Understanding the effects of the IPLI as it relates to school culture and principal effectiveness are important to understanding how principal leadership influences student learning and positive student outcomes. Research questions were presented to guide the study and key terms were defined. Chapter 2 presents a review of the literature as it relates to the study. Chapter 2 includes a review of a principal's influence, a

principal's impact on learning, principal skills and competencies associated with student learning, negative effects of principal turnover, principal leadership support, and the IPLI as a mechanism to developing Indiana principals. Chapter 3 provides the statistical methodology for the quantitative study. Chapter 4 presents the findings of the study, and Chapter 5 offers a summary, discussion, implications of the study, and recommendations for further research.

CHAPTER 2

REVIEW OF LITERATURE

A report by the Senate Select Committee on Equal Educational Opportunity (Congress of the United States, 1972) described the importance of the principalship:

> In many ways the school principal is the most important and influential individual in any school. He or she is the person responsible for all activities that occur in and around the school building. It is the principal's leadership that sets the tone of the school, the climate for teaching, the level of professionalism and morale of teachers, and the degree of concern for what students may or may not become. The principal is the main link between the community and the school, and the way he or she performs in this capacity largely determines the attitudes of parents and students about the school. If a school is a vibrant, innovative, child-centered place, if it has a reputation for excellence in teaching, if students are performing to the best of their abilities, one can almost always point to the principal's leadership as the key to success. (p. 305)

When one thinks of school leadership, the principal may be one of the first people and positions that to come to mind. After all, the principal is among the most recognizable figures in the school and the principalship is one of the most significant factors in the education of students (Burkhauser et al., 2013). As demonstrated in the Congressional Report of the United States (1972), successful principal leadership is key to the important work that schools set out to do. The importance of leadership is recognized in other sectors, too (Collins, 2001). In professional

athletics, a general manager might announce a coaching change, thus acknowledging the great importance of effective leadership. Another example might come from a board of director's spokesperson, who announces a change in an organization's chief operations officer, or a church elders board voting in a new pastor to lead the congregation. All examples communicate the important role that leadership plays in the organization. Education is no different. Leadership is essential to effective schools (Marzano, 2003), and a principal's work matters to school effectiveness (Hallinger & Heck, 1996). When considering school-related factors, "leadership is second in strength only to classroom instruction" (Leithwood et al., 2004, p. 70). Marzano et al. (2005) identified leadership behaviors "that have a statistically significant relationship with student achievement" (p. 64). The literature and research reviewed showed that school leadership is identified as a significant factor affecting school effectiveness and student achievement and that principals work through a variety of paths to make an impact (Hallinger & Heck, 1998). Behind teachers, the principal influences student learning more than any other factor (Burkhauser et al., 2013). Consistent findings in the literature on a principal's influence point to a convincing, yet indirect effect on student learning (Hallinger, 2011; Hallinger & Heck, 1996; Supovitz et al., 2010).

Principal Influence

Research shows that principals improve their schools using influence (Hallinger & Heck, 1998). The idea of a principal using influence is emphasized in the School Leader Collaborative (2018), a leadership framework that depicts the work principals do as they lead learning organizations. As noted in the School Leader Collaborative, influence is identified as a social intelligence competency in which an effective school leader "can cause changes without directly forcing them to happen, [practicing] skills of networking, constructive persuasion and

negotiation, consultation, and coalition building" (p. 6). Burns (1978) authored a definition of leadership that supports leadership

> as leaders inducing followers to act for certain goals that represent the values and the motivation—the wants and the needs, the aspirations and expectations—of both leaders and followers. And the genius of leadership lies in the manner in which leaders see and act on their own and their followers' values and motivations. (p. 55)

This review is grounded in the view of principal leadership as influence. Author and speaker, John Maxwell, has spent much of his life studying leadership and has concluded that leadership is influence (Maxwell, 2011). Grenny et al. (2013) contended that "at the end of the day, what qualifies people to be called *leaders* is their capacity to influence others to change their behavior in order to achieve important results" (p. 6). In the school setting, effective principals "influence student learning outcomes" (Hallinger & Heck, 1996, p. 187). According to Seashore Louis et al. (2010), principals are in a position to influence a variety of factors that are related to student learning. But principals cannot leverage their influence if they do not stay in the principalship. A report by the School Leaders Network (2014) cited a somber retention rate for new principals: half "of new principals quit [within] their third year" (p. 1). The demands and challenges of the principalship can be great and lead to turnover (Levin & Bradley, 2019). Principal turnover can lead to negative and disruptive effects on school performance (Bartanen et al., 2019). Lack of leadership consistency in a school hinders school improvement (School Leaders Network, 2014). The School Leaders Network's report further suggested providing and supporting retention efforts for principals through ongoing support and development in order to serve students and schools. Researchers have suggested various strategies to confront principal

turnover, including offering professional development that is ongoing and effective (Levin & Bradley, 2019).

This literature review describes the important role a principal has in influencing student learning and the impact the principal has on student achievement. Principal skills and competencies most associated with effective principal leadership are explained next. The review then summarizes how principals can improve their skillsets through training, including mentoring and leadership coaching. The literature review summarizes the importance of principal coaching and support as a means to address principal turnover. Finally, a close-up look into the IPLI model is taken to provide an example of leadership support and development in Indiana.

Principal Impact

Principals play an important role in the overall success of students and the school by impacting student learning. Marzano et al. (2005) are credited with identifying "a set of competencies (responsibilities) that are research based" (p. 62) for school leaders to increase school effectiveness. Their research built upon previous research by Hallinger and Heck (1998) that produced evidence that leadership had small, yet significant, effects on student achievement. A major school leadership study commissioned by the Wallace Foundation found that "leadership is viewed as central in addressing and facilitating the work of teaching and learning, as well as managing the influences related to the work outside of the school" (Seashore Louis et al., 2010, p. 5). These major sources of leadership research uphold the common belief that school leadership is important to student and school success. According to Marzano et al. (2005), "School leadership has a substantial effect on student achievement" (p. 12). Hallinger and Heck (1998) indicated, "The general pattern of results drawn from this review supports the belief that

principals exercise a measurable, though indirect effect on school effectiveness and student achievement" (p. 186). The results from these studies provided considerable insight into the impact the principal has on student learning.

The importance of an effective principal is no surprise considering the impact the position has on others in the school environment. Marzano (2003) organized effective school research into three general factors that are influenced by leadership, including "school-level, teacher-level, and student-level factors" (p. 10). School practices, such as "guaranteed and viable curriculum, challenging goals and effective feedback, parent and community involvement, safe and orderly environment, and collegiality and professionalism" (Marzano, 2003, p. 15) influence student achievement. Waters et al. (2003) identified effective teacher practices, such as "instructional strategies, classroom management, and curriculum design" (p. 6). Principal leadership is critical to effective schools because the principal is positioned to affect all the factors (Walhstrom et al., 2010). According to a report from the Wallace Foundation (2013), "The principal remains the central source of leadership influence" (p. 6).

The responsibilities of a principal are extensive and are directed toward improving student learning. Leithwood et al., (2004) asserted that "all current school reform efforts aim to improve teaching and learning" (p. 4). A strong leader, or principal, is "the central source of leadership influence" (Wallace Foundation, 2013, p. 6). Principal "leadership is second only to classroom instruction among all school-related factors that contribute to what students learn at school" (Walhstrom et al., 2010, p. 6). As a primary influence of student learning, the study suggested the principal, as leader, is in a leveraging position to carry out two specific functions: "exercising influence [and] providing direction" (Seashore Louis et al., 2010, p. 7). By helping create the optimal conditions for the school to flourish, the principal affects student achievement.

Branch et al. (2013) “found that effective principals raise the achievement of a typical student in their schools by between two and seven months of learning in a single school year” (p. 63). Conversely, Branch et al. found ineffective principals have the same adverse effect. These findings underscore the importance of the principal’s influential impact on student learning and school effectiveness.

Leadership is key to improvement. Leithwood et al. (2004) “found that successful leadership can play a highly significant role in improving student learning” (p. 5). A principal’s leadership significantly affects student achievement (Ross & Cozzens, 2016). According to Herman et al. (2017), “There is substantial research evidence demonstrating that school leaders are a powerful driver of student outcomes” (p. 3). The principal, recognized as a primary school leader, influences school improvement through various organizational ways including vision, mission, and goals (Hallinger & Heck, 1998). This type of influence can be described as a transforming process where leadership is used to enhance motivation and morality (Burns, 1978). Leithwood et al. (2004) suggested the greater the challenge, the greater need for leadership. The Every Student Succeeds Act (ESSA; 2015) that governs education policy in the United States affirms the important part school leadership plays in affecting student learning (Herman et al., 2017). U.S. Secretary of Education Arne Duncan stated, “The school leader’s impact is huge. They help shape that school culture. They are, first and foremost, instructional leaders. They create an environment in which students and teachers are excited about coming to school each day” (Duncan, 2013, para. 36).

National and state professional standards for school leaders, such as the 2008 Professional Standards for Educational Leaders (PSEL; 2015) and National Educational Leadership Preparation (NELP), also acknowledged the impact of school leadership and the

influential role in which principals affect student achievement (NPBEA, 2018). The standards provide a framework of skills and competencies for school leaders, including principals, assistant principals, and district leaders. The standards were first published in 1996 and updated in 2008 and have shaped principal preparation programs, provided job training, and acted as a basis for school leader evaluations (PSEL, 2015). In 2015, the NPBEA adopted new standards to revise previous versions in many of the same domains while also elevating them with more clarity for student outcomes. PSEL has been informed by advancements in educational research (Murphy et al., 2017) and changes in the world and workplace which have led to increased job demands of school leaders. The PSEL standards are described as "student centric, outlining foundational principles of leadership to guide the practices of educational leaders so they can move the needle on student learning and achievement [*sic*]*more* equitable outcomes" (NPBEA, 2015, p. 1).

Mid-continent Research for Education and Learning's (McREL) balanced leadership framework represents research findings about the substantial "significant relationship between leadership and student achievement" (Waters et al., 2003, p. 3). The framework was generated on the basis "that there is a link between school leadership and student achievement" (Waters & Grubb, 2004, p. 2). Waters et al. (2003) indicated that the leadership effect can be positive or negative depending on which leadership practices were utilized and when they were used. In addition to communicating important research findings about the "impact of school-level leadership on student achievement" (Waters & Grubb, 2004, p. 11), McREL's framework was designed to support effective leadership practices in schools while also accounting for how, when, and why to go about leadership to affect achievement.

School-community involvement is an example of a principal's impact and how principals exert leadership influence in their jobs. Principals today are expected to develop community

relationships to advance student outcomes (Hauseman et al., 2017). Relationships outside the school and community partnerships can lead to additional learning experiences for students, generate revenue or income for the school for educational programming, and provide services that schools may not be able to offer. Walhstrom et al. (2010) indicated that successful leaders at higher performing schools make connections with and engage stakeholders to improve student learning. However, school-community involvement increases principal workload demands and stress. Hauseman et al. (2017) called this phenomenon *work intensification* noting that the work intensification of school-community involvement requires more time on the job and the complexity of a principal's job increases.

How Principals Make an Impact

When it comes to student achievement, principals make a difference (Hallinger et al., 1996; Walhstrom et al., 2010). Although there is widespread support for the notion that principals matter in the education of students, studies have aimed to identify how effective principals go about such important and complex work. "Setting directions, developing people, and redesigning the organization [make up] the basic core of successful leadership practices" (Leithwood et al., 2004, p. 8) that leaders in other sectors employ to be successful. In a major study covering 15 years of empirical principal leadership research, Hallinger and Heck (1998) found that principals positively affect student outcomes through multiple avenues, including "school goals, structure and social networks, people, and organizational culture" (p. 187). The quantitative synthesis leadership research conducted by Marzano et al. (2005) went further and identified specific leadership responsibilities associated with school achievement. These two sources represent decades of comprehensive research on the effects of leadership on student achievement.

The way leadership affects learning is largely indirect (Hallinger & Heck, 1998) and takes time (Coelli & Green, 2012). Leithwood et al. (2004) found that leaders' impact on learning is indirect and is influenced by how and where time is spent in the school. Though principals may not use direct instruction like teachers do to improve learning, principals affect the learning process in other ways, including shaping school culture, setting staff expectations, and allocating resources for effective programs and policies (Strickland-Cohen et al., 2014). Principals, as leaders, work to create the optimal conditions in which others can succeed by working through other people, events, and organizational factors (Hallinger & Heck, 1998). Supovitz et al. (2010) found that effective principals indirectly influence classroom learning by working through others. Effective principals can support teacher development which then results in the teachers having more impact on students' learning (School Leaders Network, 2014). By directly influencing school and classroom conditions, principals indirectly influence student learning (Walhstrom et al., 2010).

Teachers directly influence student achievement (Marzano, 2003). Branch et al. (2013) found that effective principals make a difference in the school by managing teacher effectiveness through teacher transitions. Their study involving public schools in Texas measured principal effectiveness by analyzing math achievement data of students in Grades 3 through 8. The findings of the study showed that "less-effective teachers are more likely to leave schools run by highly effective principals" (Branch et al., 2013, p.67). Leadership is recognized as "second only to classroom instruction (Leithwood et al., 2004, p. 5) and "principals are responsible for establishing a schoolwide vision of commitment to high standards and the success of all students" (Wallace Foundation, 2013, p. 7). Because teacher turnover harms student achievement

(Bartanen et al., 2019), a logical deduction can be made that a principal's efforts to improve teacher effectiveness is a pathway to improving student learning.

Principal leadership is exercised through the role of instructional leader (Hallinger et al., 1996). The principal, as instructional leader, generally frames school leadership as focused on classroom practices (Seashore Louis et al., 2010). The quality of instruction in the classroom matters as to whether students learn or not (Sebastian & Allensworth, 2012). Professional standards guide principal practices and foster student outcomes (NPBEA, 2015). Effective principals utilize instructional leadership to influence student learning (Supovitz et al., 2010). Working as an instructional leader, the principal influences teachers using transformational leadership practices to improve "collective teacher efficacy" (Fancera & Bliss, 2011, p. 349). Collective teacher efficacy (CTE) is the belief that teachers as a whole can have positive impact on student outcomes (Goddard et al., 2000). Goddard et al. (2000) stated, "Collective teacher efficacy is an emergent group-level attribute, the product of the interactive dynamics of the group members" (p. 482).

Utilizing various leadership roles that influence others and organizational practices may describe how principals use transformational leadership to exercise influence. In doing so, they are practicing transformational leadership. According to Burns (1978), "transformational leadership occurs when one or more persons engage with others in such a way that leaders and followers raise one another to higher levels of motivation and morality" (p. 58). Because of significant changes in education and shifts in society, school leaders must have the skills and resources to improve schools and help students achieve better outcomes (NPBEA, 2018).

A Principal's Changing Roles

As mentioned, school leadership matters (Marzano et al., 2014; Waters et al., 2003), but how exactly the principal influences student learning achievement can be explained through various roles and paths within the school. Traditionally, the role of principal was based on management, but the Wallace Foundation asserted that more is needed from principals in today's educational landscape, including "shaping a vision of success, creating a climate [conducive to learning], cultivating leadership in others, improving instruction, and managing people, data, and processes" (Wallace Foundation, 2013, p. 6). In the Metlife (2013) survey of teachers and principals, principals indicated that the job of being a principal has changed. The job has increased in complexity and stress but has become less satisfying. The Wallace Foundation (2013) described the change:

> This shift brings with it dramatic changes in what public education needs from principals. They can no longer function simply as building managers, tasked with adhering to district rules, carrying out regulations and avoiding mistakes. They have to be (or become) leaders of learning who can develop a team delivering effective instruction. (p. 6)

The Council of Chief State School Officers (CCSSO) published education leadership standards to provide guidance to school leadership to influence student learning and to advance better outcomes for students (NPBEA, 2015). The standards are based on research findings, input from key professional organizations, such as the National Association of Elementary School Principals (NAESP) and the NASSP, and practicing educational leaders. The standards "communicate expectations to practitioners, supporting institutions, professional associations, policy makers, and the public about the work, qualities, and values of effective educational leaders" (NPBEA, 2015 p. 4). They essentially act as a job description for principals. Effective

principals model key behaviors and actions to influence student achievement. The Wallace Foundation (2013) identified five key responsibilities:

1. Shaping a vision of academic success for all students, one based on high standards;
2. Creating a climate hospitable to education in order that safety, a cooperative spirit and other foundations of fruitful interaction prevail;
3. Cultivating leadership in others so that teachers and other adults assume their parts in realizing the school vision;
4. Improving instruction to enable teachers to teach at their best and students to learn to their utmost; and,
5. Managing people, data, and processes to foster school improvement. (p. 6)

The School Leader Paradigm is another framework designed to support the important work that principals do in schools (School Leader Collaborative, 2018). The School Leader Collaborative is a conglomerate of state principal associations across America working together to support school leaders with resources, best practices, and research. The School Leader Collaborative (2018) created the "school leader paradigm to give a complete picture of principals as learning leaders leading learning organizations" (p. 5). The paradigm is grounded in the NASSP building ranks publication (School Leader Collaborative, 2018) and may be viewed more comprehensively than professional standards due to the way it integrates the comprehensive work of school leaders with the critical competencies and intelligence needed to learn and grow professionally while leading schools towards more successful outcomes. The infinity loop within the paradigm portrays continuous improvement and continuous learning for both the leader and the organization being led (School Leader Collaborative, 2018).

A Principal's Impact Through Competencies

In addition to using their influence to indirectly impact student learning through various school factors, principals influence student achievement through leadership responsibilities and practices (Marzano et al., 2005). The effect principals have on student achievement is indirect (Hallinger & Heck, 1998). "McREL identified 21 leadership responsibilities that are significantly associated with student achievement" (Waters et al., 2003, p. 2). The behaviors constitute the McREL balanced leadership framework. This framework can act as a guide for principals in the use of leadership practices (Jacob et al., 2015). The Marzano high reliability schools model is another mechanism school leaders can use to improve student outcomes using a hierarchy of levels that are research based (Marzano et al., 2014). The levels in the hierarchy are composed of research-based factors—including those identified by John Hattie—that affect student achievement. Hattie (2012) synthesized thousands of empirical research studies and concluded that most of the factors that influence student learning are within a school's control. Professional standards, such as PSEL standards and NELP standards, also describe and guide the performance expectations of principals using research. Finally, this literature review found the school leader paradigm as another framework that provides direction and guidance for principals to increase their effectiveness (School Leader Collaborative, 2018). The aforementioned frameworks are all designed to help practicing principals impact achievement.

Principal leadership affects student achievement through a "wide array of behaviors" (Marzano et al., 2005, p. 62) based on research . According to Waters and Grubb (2004), "Effective school leadership requires that principals use practices that are positively associated with student achievement" (p. 6). Marzano et al. (2005) indicated that successful leaders manage two "categories of change: first-order change and second-order change" (p. 66). "First-order

change is incremental" (Waters & Grubb, 2004, p. 8) and consistent with previous customs. Second-order change is quite different and separate from the past. Successful leaders understand both types of change and adjust leadership responsibilities accordingly to manage both types of change (Waters & Grubb, 2004). In other words, principals not only need to know what effective leadership practices make a difference, but they also need to know how to go about implementing them (Waters et al., 2003). Leithwood et al. (2004) asserted that "leaders need to know which features of their organizations should be a priority for their attention" (p. 14). Principals can impact student achievement positively or negatively depending on the order of change (Waters & Grubb, 2004). The paradigm identifies crucial leadership qualities that are necessary to influence a healthy, student-centered culture, to assess and improve school systems to better serve students, and to support and encourage "growth of all members of the learning organization" (School Leader Collaborative, 2018, p. 8).

Marzano et al. (2005) found that "Principals can have a profound effect on the achievement of students in their schools" (p. 38) through various leadership behaviors and practices. In the quantitative meta-analysis, the researchers identified 21 leadership behaviors or competencies that are related with student achievement (see Table 1). Many of the identified competencies support previous research that demonstrated the way school principals used their influence to shape the school's mission, vision, and goals (Hallinger & Heck, 1998). McREL's balanced leadership framework explains the results of important quantitative leadership research and offers practical or useful examples for practicing principals to develop their leadership to improve student achievement (Waters & Grubb, 2004). Although the framework is built upon empirical research, one study involving principals in Michigan found that the program did not impact student achievement (Jacob et al., 2015). The program is designed around the leadership

responsibilities correlated with student achievement to help principals improve student outcomes. The researchers acknowledged several possible explanations for the finding, including the assertion that other organizational factors play a role, including directly involving teachers. This conclusion is supported by the findings of Supovitz et al. (2010) who stated,

> School leadership, characterized in this model by the development of mission and goals, an environment of collaboration and trust, and a focus on instructional improvement, appears to foster an environment where teachers work together and constructively engage with each other around issues of teaching and learning. (p. 44)

In other words, the principal's role in improving student achievement is indirect. Furthermore, school leadership practices can be employed by teachers. PSEL acknowledged the view that effective schools involve the leadership of others (NPBEA, 2015).

Table 1

The 21 Responsibilities of School Leadership

Responsibility	Definition	Avg. *r*
Affirmation	Recognizes and celebrates accomplishments and acknowledges defeats.	.25
Change agent	Is willing to and actively challenges the status quo.	.30
Communication	Establishes strong lines of communication with teachers and among stakeholders.	.23
Contingent rewards	Recognizes and rewards individual accomplishments.	.15
Culture	Fosters shared beliefs and a sense of community and cooperation.	.29
Curriculum, instruction, assessment	Is directly involved in the design and implementation of curriculum, instruction, and assessment practices.	.16
Discipline	Protects teachers from issues and influences that would detract from their teaching time or focus.	.24
Flexibility	Adapts his or her leadership behavior to the needs of the current situation and is comfortable with dissent.	.22
Focus	Establishes clear goals and keeps those goals in the forefront of the school's attention.	.24
Ideals/beliefs	Communicates and operates from strong ideals and beliefs about schooling.	.25
Input	Involves teachers in the design and implementation of important decisions and policies.	.30
Intellectual stimulation	Ensures that faculty and staff are aware of the current theories and practices and makes the discussion of these a regular aspect of the school's culture.	.32
Knowledge of curriculum, instruction, and assessment	Is knowledgeable about current curriculum, instruction, and assessment practices.	.24
Monitors/evaluates	Monitors the effectiveness of school practices and their impact on student learning.	.28
Optimizer	Inspires and leads new and challenging innovations.	.20
Order	Establishes a set of standard operating principles and procedures.	.26
Outreach	Is an advocate or spokesperson for the school to all stakeholders.	.28
Relationship	Demonstrates an awareness of the personal aspects of teachers and staff.	.19
Resources	Provides teachers with the material and professional development necessary for the successful execution of their jobs.	.26

Table 1 (continued)

Responsibility	Definition	Avg. *r*
Situational awareness	Is aware of the details and undercurrents in the running of the school and uses this information to address current and potential problems.	.33
Visibility	Has quality contact and interactions with teachers and students.	.16

Note. Marzano, R., Waters, T., & McNulty, B. A. (2005). *School leadership that works: From Research to Results*. Association for Supervision and Curriculum Development.

The list of leadership behaviors and competencies identified in McREL's research gave some indication of the challenging nature of the principalship (Waters & Grubb, 2004). All 21 responsibilities are relevant to school leadership (Marzano et al., 2005). "When involved in second-order change initiatives that are dramatic departures from the past, the leader must emphasize 7 responsibilities" (Marzano et al., 2005, p. 75) shedding light on the leadership challenges associated with change and improvement. According to Hammack and Wise (2011), leaders benefited from leadership coaching using specific competencies, such as best practices to improve principal performance. Marzano et al. (2005) stated that "the school leader's ability to select the right work is a critical aspect of effective leadership" (p. 97).

Dana (2009) stated, "Demands for a principal's time and attention come from an astonishing number of constituencies he or she must serve simultaneously—teachers, students, parents, the superintendent and district office, the board of education, and the community at large" (p. 1). The principalship is a challenging position and is increasing in complexity (Wise & Leon, 2009). Because of the principal's leadership demands and the position's complexity, key skills and practices are required to make a significant impact on student learning.

A key finding from principal leadership research from 1980 to 1995 revealed that "a principal's role in shaping the school's direction through vision, mission, and goals came through these studies as a primary avenue of influence" (Hallinger & Heck, 1998, p. 187). The mission of schools is to improve student outcomes (Knoeppel & Rinehart, 2008). Hallinger et.al. (1996) wrote, "Mission refers to the school's orientation toward improving student learning" (p. 534). A school's mission is guided by practices. Leithwood et al. (2004) "identified three practices that constitute the underlying foundation of successful leadership: setting directions, developing people, and redesigning the organization" (p. 8). Each one of these leadership practices can be also be found on the side of the paradigm that describes the work principals do (School Leader Collaborative, 2018). The paradigm identified crucial leadership qualities that are necessary to influence a healthy, student-centered culture, to assess and improve school systems to better serve students, and to support and encourage learning growth of all members of the learning community. Principal effectiveness occurs through a concept of *becoming while doing* (School Leader Collaborative, 2018). Becoming while doing describes how principals improve and develop their competencies as they lead and improve the school's effectiveness (School Leader Collaborative, 2018). When one benefits, the other benefits. The two go hand-in-hand. Maxwell (2011) supported the assertion that organizational improvement starts with leadership growth and leaders can progress through five different levels of leadership. Learning is ongoing and effective leaders do not stop. Maxwell (20011) stated, "Leadership is a process, not a position" (p. 4). According to Burns (1978), this kind of leadership is transformational. Simultaneously, principals increase their learning as they increase the learning capacity of the schools they lead. Culture is understood as foundational to the entire paradigm.

School Culture

School leaders are positioned to shape culture through the aforementioned leadership practices. Gruenert and Whitaker (2015) stated, “For schools to be effective, educators need to understand the organizational cultures in which they work and be able to modify them if necessary” (p. 3). Barth (2002) contended that changing the existing school culture is the most important and most difficult undertaking of a school leader. The school culture is key to school improvement because it is made up of a school’s “norms, attitudes, beliefs, behaviors, values, ceremonies, traditions, and myths that are deeply ingrained in the very core of the organization” (Barth, 2002, p. 7). Peterson and Deal (2016) stated,

> Culture is the underground stream of norms, values, beliefs, traditions, and rituals that has built up over time as people work together, solve problems, and confront challenges. This set of informal expectations and values shapes how people think, feel, and act in schools. This highly enduring web of influence binds the school together and makes it special. It is up to school leaders—principals, teachers, and often parents—to help identify, shape, and maintain strong, positive, student-focused cultures. Without these supportive cultures, reforms will wither, and student learning will slip. (p. 163)

Barth (2002) suggested that culture can help or hurt school improvement efforts depending on the type of culture. These claims are supported by the findings of Waters and Grubb (2004) who found “four leadership responsibilities negatively related with second-order change” (p. 9). According to Peterson and Deal (2016), school leaders “read the culture before trying to reshape it” (p. 9). A safe and collaborative culture is the first of five levels that make up the five levels of the high reliability schools (Marzano et al., 2014). Level 1, a safe and collaborative culture, acts a foundation for the other levels (Marzano et al., 2014). A safe and

collaborative culture is represented by factors that uphold a safe and orderly environment; regular teacher collaboration; staff, student, parent, and community input; and operational procedures and resources to support teaching and learning (Marzano et al., 2014). The school climate can be a mechanism to affect student achievement (Wallace Foundation, 2013). A strong learning climate affects the quality of the instruction in the school (Mascall & Leithwood, 2010). One study found that effective principals use strong learning climates to have an effect on student achievement (Sebastian & Allensworth, 2012). Effective principals leverage their energy and influence establishing a safe environment that is orderly, community-oriented, trusting, and centered on learning (Wallace Foundation, 2013).

The School Culture Survey (SCS) is an instrument that school leaders can administer to gauge a level of collaboration within the school setting (Gruenert & Whitaker, 2015). There are 35 survey items grouped in six categories that account for behaviors that characterize "a collaborative school culture" (Gruenert & Whitaker, 2015, p. 80). The SCS is an instrument designed to gauge collaboration within a school building. Collaboration includes behaviors and conditions beyond staff working together. Gruenert and Whitaker (2015) identified the six categories of the SCS along with a brief description as follows:

Collaborative leadership. There are 11 items on the survey in this category that assess school leaders' collaborative relationships with school staff. Examples of collaborative leadership include staff giving input into decisions and sharing ideas to improve learning.

Teacher collaboration. Six items on the survey describe how much teachers partake in productive school improvement interaction. Teacher collaboration includes teachers planning together to improve practices.

Professional development. There are six items on the survey in this category that signify the importance of personal and schoolwide improvement with the staff. Professional development helps teachers improve teaching through collaboration and training.

Unity of purpose. Five items on the survey represent how teachers work toward a common school mission. “Teachers understand, support, and perform in accordance with the school’s mission” (p. 85).

Collegial support. There are four items on the survey that indicate the level of support staff show each other in their jobs. Examples of collegial support include teacher trust and support.

*Learning partners*hip. There are four items on the survey in this category that tell about the learning partnership among students, parents, and staff. This involves having shared expectations and effective communication between parents and teachers. (see Appendix A)

It is worth pointing out that the six categories on the SCS are mentioned in some regard or have been identified directly in the literature as being associated with having a positive effect on student achievement. For example, a study of principal effectiveness on student achievement by Hallinger et al., (1996) found “a statistically significant ($p < .01$) positive relationship between principal leadership and school climate” (p. 543). The study characterized the instructional climate as having a clear “school mission, opportunity to learn, and teacher expectations” (p. 543). The description parallels *unity of purpose* in the SCS. In reviewing the meta-analysis of Marzano et al. (2005), an effective school leader makes a difference through the responsibilities of communication, culture, “involvement in curriculum, instruction, and assessment, and

optimizer" (p.42) which correspond to Gruenert and Whitaker's (2015) description of collaborative leadership.

Another example can be found from the study by Leithwood et al. (2004) in which effective leaders affect student achievement through setting directions and purpose. This leadership responsibility is similar to unity of purpose in the SCS (Gruenert & Whitaker, 2015). Still another example is from Marzano et al.'s (2014) research, a safe and collaborative culture, which contains several indicators associated with the categories in the SCS of teacher collaboration, collegial support, and learning partnership.

Negative Effects of Principal Turnover: What is the Problem in School Leadership?

Because principals play a significant role in school effectiveness and improved student outcomes, principal retention is important (Levin & Bradley, 2019). According to the National Center for Education Statistics, the national principal turnover rate is around 18% (Goldring & Taie, 2018). Principal turnover has mostly negative effects (Mascall & Leithwood, 2010). Principal turnover disrupts teachers and the support that is needed to foster a collaborative environment (Levin & Bradley, 2019). Walhstrom et al. (2010) studied the effects of principal turnover and concluded that rapid "principal turnover [negatively] effects school culture and student achievement" (p. 22). Principal turnover has been especially harmful to high-poverty schools (Grissom & Bartanen, 2019).

"Principal turnover is also associated with teacher turnover, which, in turn impedes teacher instructional" (Fuller, 2017, p. 737) growth. The ability of principals to increase the instructional capacity of teachers increases school effectiveness, but if principals and teachers are changing, a negative effect on student outcomes occurs (Fuller, 2017). Mascall and Leithwood (2010) found that distributing leadership in a school may curb the negative effects of principal

turnover. Strickland-Cohen et al. (2014) declared, “The true test of a strong school leader is the extent to which the staff continues effective practices long after the administrator leaves” (p. 22). Effective principals indirectly influence classroom learning by working through others (Supovitz et al., 2010). Effective practices and programs can be sustained through planning with others. Distributive leadership may “have the potential to temper some of the negative effects of rapid principal turnover” (Mascall & Leithwood, 2010, p. 377).

Bartanen et al. (2019) identified “different types of principal turnover” (p. 353) and found that “principal turnover has a negative effect on school performance” (pp. 369–370). Principal, school, and community characteristics may impact retention and turnover. Socioeconomic status within schools, community poverty rates, and personal hardships can have an especially negative effect (Levin & Bradley, 2019). Beteille et al. (2011) suggested that principals prefer working in schools that are easier to staff, schools with fewer low-poverty students, and schools with higher achievement. Student achievement may help predict principal turnover (Grissom & Bartanen, 2019). Levin and Bradley (2019) contended turnover is especially disruptive in high-need schools where effective principals are needed to retain effective teachers. Grissom and Bartanen (2019) acknowledged that there were various reasons for principal turnover, including promotion. Findings from their study on the relationship between principal effectiveness and turnover indicated some turnover results from high performance schools where principals exited the principalship due to being promoted (Grissom & Bartanen, 2019).

Boyce and Bowers (2016) studied two main types of principals who leave the principalship and described them as *satisfied* and *dissatisfied*. The researchers found the “satisfied principals [self-]reported higher levels of influence” (Boyce & Bowers, 2016, p. 261) in their job over curriculum, performance standards, professional development of teachers, the

school budget, hiring teachers, overall better attitude, higher salary, and few school climate problems. The work of principals is complex and the demands on a principal's time are numerous. Negative effects, such as burnout, stress, and job conflict, require principals to be supported (Hauseman et al., 2017). Boyce and Bowers (2016) studied variables that affected turnover and "found that satisfied principals had higher levels of influence in their schools" (p. 261) through positive working conditions, greater decision-making authority, and increased salary.

Principal leadership can be viewed as an investment, since principal turnover is financially problematic (Gates et al., 2019). In a report from School Leaders Network (2014), a group whose mission is to develop leadership to improve schools, the authors provided a conservative estimate of "$75,000 to develop, hire, and onboard" (p. 4) each principal. A report by the NASSP identified strategies for reducing principal turnover, including high-quality professional development, support for improved "working conditions, adequate compensation, decision-making authority, and [fair] accountability" (Levin & Bradley, 2019, p. 5) systems.

The Wallace Foundation (2013) asserted that "a principal should be in place [at least] five years in order to" (p. 15) positively affect the school. Coelli and Green (2012) also found that principals needed time to affect student outcomes. Fewer than five years ago, the national tenure average for principals was four years (Levin & Bradley, 2019). School Leaders Network (2014) claimed "half of new principals quit" (p. 1) in the first three years. The report explained that turnover negatively affected student achievement and school improvement. Principal turnover in schools with higher needs also tended to be higher (Fuller, 2017).

In the School Leader Collaborative (2018) report, the consortium of state principal associations asserted that principals needed time to increase effectiveness as leaders. When given

time, “principals can have a large effect on student outcomes” (Coelli & Green, 2012, p. 104). A logical deduction can be made that principal turnover is not conducive to student achievement. The NPBEA (2015) acknowledged the national turnover problem among school leaders asserting that turnover “derails improvement efforts necessary for student learning” (p. 6). Levin and Bradley (2019) pointed to five “reasons principals leave their jobs: (a) inadequate preparation and professional development, (b) poor working conditions, (c) insufficient salaries, (d) lack of decision-making authority, and (e) high-stakes accountability” (p. 3).

In a study conducted by the NAESP, principals identified large workloads, stress, frustration with policies, and isolation as causes for turnover. Leadership is especially challenging for high school principals, who in general, lead larger schools that are organizationally more complex (Sebastian & Allensworth, 2012). The No Child Left Behind Act of 2001 (NCLB; 2002) is an example of accountability pressure that has been associated with principal stress and turnover (Mitani, 2018). NCLB policy required schools to meet specific performance and participation measures and was made up of sanctions that were imposed when adequate progress was not made. However, the survey from Metlife (2013) reported that almost 90% of surveyed principals “agree that, ultimately, the principal should be held accountable for everything that happens to the children in his or her school, including 45% who strongly agree with this view” (p. 27). Principals understand that leadership matters.

Principal pipelines are established in the education field to prepare teachers for administration. Pipelines are investment efforts to prepare principals to be effective leaders (School Leaders Network, 2014). Internships, aspiring principal programs, mentoring, and networking activities are typically considered pipeline efforts which can be used to reduce principal turnover (School Leaders Network, 2014). These front end efforts are designed to

better prepare educators for the complex roles and demands of a principal's job, but more is needed to retain principals. Support and leadership development are needed beyond the pipeline or first few years in order to retain principals in school leadership positions. The School Leaders Network (2014) proposed solutions to provide support beyond "the first few years of the principalship" (p. 2) thus addressing principal turnover. The investments included offering professional development aligned to leadership skill development, developing stronger educational and community partnerships, involving principals in peer networking, providing principal coaching support, and adjusting district support and policy to better support principals and retention.

Principal Training

To fulfill effectively the wide range of demands and responsibilities of the principalship, principals need training and support. Principals have on-the-job professional learning needs in order to serve school and student needs. The Learning Policy Institute found that principals left the principalship due to insufficient professional development opportunities and suggested that school districts can offer quality professional development as a strategy to retain principals (Levin & Bradley, 2019). The role of principal is influenced by increased state and federal accountability which requires principals to move beyond a managerial role to one which guarantees learning for all students (School Leader Collaborative, 2018). Globalization requires schools to prepare students for evolving jobs and skills. Therefore, the principal as education leader must be ready to meet the challenges (NPBEA, 2015). According to Burns (1978), "The function of leadership is to engage followers, not to merely activate them, to commingle needs and aspirations and goals in common enterprise, and in the process to make better citizens of both leaders and followers" (p. 1075).

The School Leader Collaborative (2018) is a group "of state principal associations dedicated to supporting and" (p. 2) developing school principals. The collaborative recognizes "principals as *learning leaders* [and developed] the school leader paradigm to" (p. 5) describe principals as they learn and develop their schools at the same time (School Leader Collaborative, 2018). According to Barth (1985), "the most powerful reason for principals to be learners as well as leaders comes from the extraordinary influence of modeling behavior" (p. 93). According to School Leader Collaborative (2018), school leaders model learning behaviors for their followers in "order to gain credibility" (p. 6), as well as to build a learning community (Barth, 1985). Leadership can be transforming as leaders and followers interact (Burns, 1978).

The NPBEA (2015) identified 10 domains that function collectively to influence leadership that results in student learning. According to the *Professional Standards for Educational Leaders*, the "standards embody a research- and practice-based understanding of the relationship between educational leadership and student learning" (NPBEA, 2015, p. 3). Standards provide leaders with an "understanding of how and in what ways effective leadership contributes to student achievement" (NPBEA, 2015, p. 1).

Gates et al. (2019) used the term *principal pipeline* to describe the process of improving the quality of school leadership through leadership standards, preservice preparation, "selective hiring and placement, and on-the-job evaluation and support" (p. 14). The Wallace Foundation sponsored a study involving districts utilizing the principal pipeline components and found that principal pipeline activities improved student outcomes and supported principal retention (Administration Action, 2019).

According to James-Ward (2011), "In this multifaceted, high-demand environment, leadership coaching can be utilized as a means to cultivate and equip both novice and veteran

principals for the challenges they face" (p. 2). Lackritz et al. (2019) explained that leadership coaching is a practice to help principals develop professionally. Coaching can improve leadership behaviors and result in leadership development in different leadership contexts (Wise & Leon, 2009).

Mentoring is a common practice utilized by teachers and principals to grow professionally. In a mentoring arrangement, a mentor is assigned to a mentee to act as a resource for problem solving and daily support. A coaching arrangement is similar, but the focus shifts from short-term needs of the mentee to deeper leadership needs (Augustine-Shaw & Reilly, 2017). In the coaching process, coaches help leaders set goals to grow professionally (James-Ward, 2011). The Kansas Educational Leadership Institute mentoring program trains mentors using a coaching model that aligned to standards and learning goals (Augustine-Shaw & Reilly, 2017). Effective coaching should be based on clear objectives and outcomes (Isbell, 2010).

Leadership coaching is a practice used commonly in the context of business and may be a solution or resource for principals, who face complex challenges in their schools (Wise & Hammack, 2011). Isbel (2010) stated, "What was once predominantly an intervention strategy to correct underperformance is now a tool to enhance the abilities of top producers" (p. 28). Leadership coaching is individualized professional development (Yarborough, 2018) so coaching and support should reflect the needs of the principal. Principals can develop key leadership skills through practice and coaching feedback (Bambrick-Santoyo, 2012).

The McREL balanced leadership framework is grounded in research synthesized by three key authors (Marzano et al., 2005). The researchers are credited with identifying "new insights into the nature of school leadership" (Marzano et al., 2005, p. 41). They identified 21 responsibilities and practices used by principals in their work (Marzano et al., 2005). Jacob et al.

(2015) studied “the McREL balanced leadership professional development program (BLPD) to” (p. 315) learn about how to better support principal’s professional development needs. Waters et al., (2003) demonstrated “the impact of efficacy, leadership practice, the instructional climate of the school, staff turnover, and student leadership” (p. 3). McREL’s Balanced Leadership Professional Development Program BLPD assesses its impact on principal achievement” (Jacob et al., 2015, p. 315). There were two groups in the study. One group of principals focused on research-based responsibilities and leadership practices identified by Waters et al., (2003) as they engaged in school improvement while the control group did not. The purpose of the study was to learn the impact of the Balanced Leadership Professional Development (PLPD) program on principals in Michigan in these areas (Jacob et al., 2015). The study resulted in mixed findings. The researchers found that principals in the BLPD program reported being positively impacted in the areas of efficacy, the instructional climate, and use of effective leadership practices, but the teachers involved reported no changes in the “principals’ leadership practices or instructional climate of the school” (Jacob et al., 2015, p. 328). Furthermore, researchers found that the BLPD program did not result in positive gains in student achievement (Jacob et al., 2015). However, the study results indicated that the BLPD program had a positive “statistically significant impact” (p. 327) on reducing teacher and principal turnover (Jacob et al., 2015).

The NPBEA (2015) identified 10 domains that function collectively to influence leadership that results in student learning. According to the NPBEA (2015), the “standards embody a research- and practice-based understanding of the relationship between educational leadership and student learning” (p. 3). Standards provide leaders with an “understanding of how and in what ways effective leadership contributes to student achievement” (NPBEA, 2015, p. 1). The NELP (NPBEA, 2018) building-level standards provide a foundation for principals to use in

their leadership capacity to improve student achievement. According to the NPBEA (2018), "The NELP standards specify what novice leaders and preparation program graduates should know and be able to do after completing a high-quality educational leadership preparation program" (p. 3).

Indiana Principal's Leadership Institute (IPLI)

With the Indiana General Assembly's establishment of IPLI via IC 21-41-11-4 (2013), it was hoped the institute would "achieve excellence in teacher and student performance by strengthening leadership and management skills of practicing Indiana public school principals" (para. 1). The program is a two-year professional development experience for Indiana principals to develop leadership skills and to guide school improvement. Through reflection, inquiry, and collaboration, IPLI participants learn how to improve factors that influence the learning culture of their schools (IPLI, 2016). IPLI is managed by Indiana State University and supported by the Indiana Association of School Principals (ISAP) (IPLI, 2015). The mission is defined in the IPLI Handbook (2016), "The mission of the Indiana Principal Leadership Institute is to provide building level principals with the skills and tools needed to increase their personal leadership capacities, as well as to increase the learning capacities of their schools" (p. 4).

The Indiana legislature recognized the critical role that principals play in the achievement of students and committed resources to Indiana's principals by designing a leadership institute to develop the leadership capacity of practicing Indiana principals (IPLI, 2015). IC 21-41-11-7 (2013) specified the institute's design and goals for principals which generally include procedures for improving leadership and management skills to improve teacher and student performance. IC 21-41-11-6 (2013) defined the institute's organization through Indiana State University's Bayh College of Education and public advisory board. IPLI is governed by an eight-

member advisory team representing various stakeholders, such as an appointment by the state superintendent, practicing principals, members of the Indiana General Assembly, Indiana State University faculty, practicing school superintendents, practicing public school teachers, business or industry representatives, and parents of public-school age children. About 50–60 principals participate in each two-year institute and are divided into focus cohorts. Each focus cohort is led by a mentor and acts as a small learning community throughout the institute (IPLI, 2018). The design of the IPLI model is based in theory associated with "leadership capacity and learning organizations and organized in three areas: 1) the interaction of personal and organizational goals; 2) using action research to create local knowledge; and 3) using focus-cohort as learning communities" (IPLI, 2018, p. 5).

Since its inception, IPLI has directly impacted over 400 Indiana school leaders (IPLI, 2019). Information and feedback gathered from cohort exit surveys demonstrates the impact IPLI (2018) has had on principals in the areas of personal leadership development, school improvement, action research, and collaboration. Student achievement results from state assessments have not been used to quantify the impact of the IPLI model due to new state learning standards and changing assessments (IPLI, 2019).

The structure of the two-year institute was primarily set up for principal participants to focus on personal leadership capacity in Year 1 followed by a second year that concentrates on improving the participant's school effectiveness. All participants take the SCS when starting the program. The model focuses on individual growth in order for organizational growth to occur. The IPLI model design is aligned to the concept promoted by the school leader paradigm of becoming while doing (School Leader Collaborative, 2018). Participants attend workshops, regional meetings with a mentor, seminars, and the state principal's conference. The conceptual

model contends that school leaders should be developing their leadership competencies while simultaneously improving their schools (School Leader Collaborative, 2018). Waters et al. (2003) identified key school and teacher practices from previous research that are associated with IPLI outcomes of vision for learning, culture of excellence, instructional leadership, and school management (IPLI, 2018). The institute incorporates job-embedded action research and data to support the growth of principals' leadership capacity and school improvement practices (Fichtman, 2009). With guidance from the regional focused cohorts, program seminars, and summer institute, principals develop personal improvement plans while using the action research process to increase their school's improvement capacity (IPLI, 2018). Marzano et al.'s (2014) high reliability school's framework is used in the IPLI experience to create a common language and framework for school improvement planning. According to Marzano et al. (2014), "A high reliability school, by definition, monitors the effectiveness of critical factors within the system and immediately takes action to contain the negative effects of any errors that occur" (p. 1). The high reliability model is based on school factors that impact school effectiveness and are organized in levels. The levels in the model's progress and performance in each level indicates a school's effectiveness at helping all students learn (Marzano et al., 2014).

Survey data from IPLI participants about the impact on program participants' leadership growth has been overall exceptionally positive. In its annual report, IPLI (2019) summarized several positive outcomes, including overall positive participant sentiments, as reported on the end-of-program exit survey and some statewide assessment data, although changes to the state test have caused interference when trying to compare IPLI schools with non-IPLI schools. The feedback survey used in the in the IPLI (2019) indicated convincingly that IPLI is making a positive impact.

Summary

Chapter 2 discussed the important leadership role principals play in the education of students. Principals use influence to improve their schools by working through a variety of factors and utilizing various leadership competencies and skills associated with student achievement. As mentioned, the effect principals have on student achievement is indirect, yet significant. However, the principalship is a complex and demanding position and can lead to turnover. Principal turnover is disruptive and has negative effects on school culture and student achievement. Principals can improve their leadership capacity through professional development and leadership coaching. The IPLI is a two-year program designed to provide Indiana principals with training to strengthen their leadership capacities and improve the effectiveness of their schools.

CHAPTER 3

RESEARCH METHODOLOGY

This quantitative study focused on the impact of principal participation in the IPLI as it relates to principal leadership capacity growth. The study sought to reveal the impact of the program on principal leadership and management capacity as it relates to improvement in school culture and school effectiveness. The purpose of this quantitative research study was to quantify the impact of principal participation in the IPLI using the SCS.

This chapter includes the methodology and data analysis and the design of the research. This chapter includes the research questions and hypotheses that can also be found in Chapter 1, as well as the participants, variables of the study, the study instrumentation, and finally the data collection procedures. The study sought to understand the impact of the program on principal leadership and management capacity as these relate to school culture using descriptive and inferential statistics. Outcomes of this study may serve to help school leadership better support practicing principals with job-embedded training, professional development, and supervision practices to improve school culture and effectiveness. The study may also reveal outcomes to the Indiana General Assembly and Indiana taxpayers about the legislation's support of Indiana's principal leadership capacity growth.

Design of the Research

The study was a quantitative study that used survey responses from Indiana principals to provide understanding of how participation in the IPLI impacts school culture. The principals took the SCS during their IPLI experience as a point of reference to better understand their school's culture during the IPLI experience. This study will conduct a post analysis approximately 4–6 years out from graduation from the IPLI experience to measure the impact on school culture using the SCS. "The School Culture Survey is an instrument designed to be administered to teachers in a school building to get a sense of how much their school culture is collaborative" (Gruenert & Whitaker, 2015, p. 80). The independent variables for this study were IPLI participation organized by school location type and school level. The dependent variables for this study were the composite scores of the six factors of the SCS survey.

The SCS can be grouped into six general categories, including "collaborative leadership, teacher collaboration, professional development, unity of purpose, collegial support, and learning partnership" (Valentine, 2006, p.4). It is important to note that the six categories on the SCS resemble a majority of the 21 responsibilities of school leadership associated with student achievement (Marzano et al., 2005). The IPLI director was contacted to obtain the initial school culture results to understand more about their school culture upon completing IPLI. Permission to utilize the school culture instrument was obtained by contacting the authors and providing a formal request. Permission was granted on September 10, 2020 (Appendix B). IPLI principals and their teachers were asked to complete the survey just as they did when they completed IPLI. The survey consisted of 35 statements organized in six categories that described "behaviors typical of a collaborative school culture" (Gruenert & Whitaker, 2015, p. 80) in addition to a demographic section.

Research Questions and Hypotheses

The following research questions were used in this study.

1. (RQ1). What are the current school culture levels of schools with a principal who completed IPLI and remains principal in their school as scored on the school culture survey?
2. (RQ2). Is there a statistically significant difference based on school location type as measured by the difference scores of the six factors of school culture?

   $H_0$1 There is not a statistically significant difference based on school location type as measured by the difference scores of the six factors of school culture.
3. (RQ3). Is there a statistically significant difference between school levels as measured by the difference scores of the six factors of school culture?

   $H_0$2 There is not a statistically significant difference between school levels as measured by the difference scores of the six factors of school culture.

Study Population and Sample

Indiana principals, who participated in the IPLI and remained in their schools, were chosen for this study and were invited to participate in the SCS as a part of this study. The principals surveyed participated in one of the first three cohorts of IPLI that began in 2013. The principals, who remained in the same school they were at when they participated in IPLI, and their teachers were invited to take part in the IPLI post-analysis survey. The negative effects of principal turnover on the school environment were documented in Chapter 2. The participants of this study were invited through email after determining which IPLI principals were not affected by mobility or attrition.

The list of principals was obtained through the IPLI. The principals took the SCS during their IPLI experience as a point of reference to better understand their school's culture during the IPLI experience. The survey was one of several inquiry-based activities in the IPLI conceptual model to help principals increase their leadership capacity as they seek to improve their schools (IPLI, 2018). The principals surveyed participated in one of the first three cohorts of IPLI that began in 2013. Since 2013, over 400 principals from all over the state of Indiana have participated in IPLI (IPLI, 2019). Cohort 8 was scheduled to start in Summer 2020.

Variables to be Studied

The dependent variables for this study were the composite scores of the six factors of the SCS survey. Each composite score for the six factors of school culture was calculated as a mean score. The six factors were "collaborative leadership, teacher collaboration, professional development, unity of purpose, collegial support, and learning partnership" (Valentine, 2006, p. 4). The independent variables included school location type and school level. For location type, principals were categorized as urban, suburban, and rural. School level was organized by elementary (Grades K–6) and secondary (Grades 7–12).

Issues of Trustworthiness

For this study, the SCS instrument was used. Gruenert and Whitaker (2015) stated that the SCS is "designed to be administered to teachers in a school building to get a sense of how much their school culture is collaborative" (p. 80). The survey included a demographic section that included principal information, such as school location type, principal years of experience, and school level (see Appendix C).

Information on IPLI participation was retrieved from the IPLI annual reports and from the IPLI director. Initial SCS survey results were obtained on principals from IPLI Cohorts 1, 2,

and 3 from the director of the IPLI. The SCS is an instrument that teachers can use to provide data about a school's culture (Valentine, 2006). Appendix D correlates the supporting research from the "21 responsibilities of the school leader" (Marzano et al., 2005, p. 41) to items on the SCS. This was done to increase the validity of the study and to show how each competency related to survey items that typify a collaborative school culture. The SCS is a valid and reliable tool and has been used in various research studies (Gruenert & Valentine, 1998). Table 2 contains Cronbach's alpha factor reliability coefficients for the six factors of the SCS, which demonstrate a score of .7 or higher for five of the six factors. Learning partnerships approached the acceptable threshold.

Table 2

Cronbach's Alpha Factor Reliability Coefficients

Factor	Cronbach's Alpha
Collaborative leadership	.910
Teacher collaboration	.834
Unity of purpose	.821
Professional development	.867
Collegial support	.796
Learning partnership	.658

Data Collection Procedures

Historical school directory information was gathered from the director of the IPLI, who received it from the director of data management and analytics of the (IDOE), on March 23, 2020. The directory listed each public school in Indiana and the corresponding principal.

Directory information was necessary to confirm which principals were still working in the same school as they did when they participated in IPLI. Data from 2015 to present were compiled from the directories for post-IPLI program completion. A formal request was made in writing to the IPLI director to obtain the principals' initial SCS data (see Appendix E).

IPLI participants were surveyed online using the Qualtrics survey platform. Principals were contacted via email to participate in the survey (see Appendix F). The intent of the email was to inform the IPLI principals of the study and sought their consent to participate. A teacher recruitment email was sent to IPLI principals to inform them of the study and sought their participation (see Appendix G). Two weeks after the initial contact (email), a follow-up email was made. Principal and teacher consent was obtained prior to participating in the survey (see Appendix H).

Methodology and Data Analysis

The quantitative study explored and determined the impact IPLI has had on the school culture of principals, who completed IPLI in the first three cohorts and who have remained principal in their school. Cohort 1, Cohort 2, and Cohort 3 commenced in 2013, 2014, and 2015 respectively. The IPLI principals were administered the survey prior to starting the IPLI program. This study utilized a quantitative approach using descriptive and inferential statistics. The Statistical Package for Social Sciences (SPSS) Version 26 was used to analyze the survey data. According to Smith (1983), "From the quantitative perspective the overall purpose of educational research is to explain, and by extension to be able to predict, the relationship between or the invariant succession of educational objects and events" (p. 11).

The first research question (i.e., What are the current school culture levels of schools with a principal who completed IPLI and remains principal in their school as scored on the school

culture survey?) used descriptive statistics to summarize and describe the new SCS composite scores of IPLI principals. The descriptive statistics described the means, standard deviations, frequencies, and percentages for the scores of the six factors of school culture. Research Question 2 was answered via hypotheses and the use of inferential statistics in the form of a one-way ANOVA statistical test. An analysis of variance procedure attempts to test for a difference among two or more groups and was the most appropriate statistic to answer the research question. The study utilized a one-way ANOVA and an independent sample *t*-test to determine if there was a statistically significant difference in school culture among the IPLI participants. A one-way ANOVA is a statistical technique for testing mean differences and an independent samples *t*-test is a research design to compare two groups (Gravetter & Wallnau, 2014). In this study, a one-way ANOVA technique assessed differences across levels of one independent variable (i.e., principal location type) on the dependent variables (i.e., composite scores for the six factors of the SCS) for one of the three research questions. The final research question used an independent sample *t*-test to compare two groups of IPLI principals—elementary principals and secondary principals—on each of the six factors of school culture. According to Gravetter and Wallnau (2014), "The goal of an independent-measures research study is to evaluate the mean differences between two populations" (p. 281).

The assumptions of normality and homogeneity of variance were tested for the one-way ANOVA and the independent samples *t*-test to ensure the reliability of the findings. Depending on the assumption of homogeneity of variance findings, the applicable post hoc tests were used to find where the differences lie. A Tukey HSD post hoc test was chosen if the assumption of homogeneity was met. If the assumption of homogeneity was not met, the Games-Howell post hoc test was used. If the homogeneity of variance assumption was not met for the independent

sample *t*-test, then the degrees of freedom were reduced to accommodate for this violation. There was no need to run a post hoc test on the independent samples *t*-test because there were only two groups. Finally, a .05 alpha level was set to determine significance for each inferential test.

Summary

Chapter 3 addressed the procedures used in the quantitative research that was focused on the impact of principal participation in IPLI. Information about the methodology, design of the research, and the research questions and hypotheses were included. The variables for the study were identified including the independent variable and levels, as well as the composite scores on the SCS which were the dependent variables in the study. Using a one-way ANOVA and an independent samples *t*-test, the study investigated the differences in school culture residual values among IPLI participants using demographic variables. Chapter 3 addressed how participants were contacted and invited to participate in the study and the data collection procedures that were used to identify which IPLI principals were still serving in the same school in which they served when they completed IPLI.

CHAPTER 4

FINDINGS OF THE DATA ANALYSIS

The purpose of this quantitative study was to investigate the impact of the IPLI on principal effectiveness and school culture, measured using the SCS. Principals in the first three cohorts of the IPLI, who remained as a principal in the school they were in when they completed IPLI, were invited to participate in the survey. The SCS was sent to principals and their teachers who provided consent to participate in the study. A total of nine schools participated in the study. Data were collected from the SCS. Respondents were asked to select their school from a list of schools that met the requirements for the study, and the participants indicated if they were a teacher or principal. Principals were asked to verify that they were still serving as principal in the same school as they were when they completed IPLI. Principals were also asked to indicate their school's location type (urban, suburban and rural), years of principal experience, and school level (elementary, Grades K–6, and secondary, Grades 7–12). The survey consisted of 35 questions organized in six areas of school culture. The six areas are collaborative leadership, teacher collaboration, professional development, unity of purpose, collegial support, and learning partnership. Reliability was achieved through the SCS authors' statistical analysis. Cronbach's alpha factor reliability coefficients for the six factors of the SCS were listed in Chapter 3.

Research Questions

1. What are the current school culture levels of schools with a principal who completed

IPLI and remains principal in their school as scored on the school culture survey?

2. Is there a statistically significant difference based on school location type as measured by the difference scores of the six factors of school culture?
3. Is there a statistically significant difference between school levels as measured by the difference scores of the six factors of school culture?

Null Hypotheses

$H_0$1 There is not a statically significant difference based on school location type as measured by the difference scores of the six factors of school culture.

$H_0$2 There is not a statistically significant difference between school levels as measured by the difference scores of the six factors of school culture.

Descriptive Data

Of the nine schools that participated in the survey, there were 97 (93.3%) teacher respondents and 7 (6.7%) principal respondents. There were 39 (37.5%) from urban schools, 34 (32.7%) from suburban schools, and 31 (29.8%) from rural schools. For school level, 13 (12.5%) were elementary and 91 (87.5%) were secondary.

Whole Sample Collaborative Leadership

There were 11 statements in the survey related to collaborative leadership. The minimum composite score was 1.09 with a maximum of 4.91, with a mean of 3.61, and the standard deviation of .74. For the statement, “Leaders value teachers’ ideas,” 75 (72.1%) responded agree or strongly agree. For the statement, “Teachers are encouraged to share ideas,” a strong majority responded in agreement with 90 (86.5%) indicating at least some level of agreement. The majority of respondents also indicated that school leaders facilitate teachers working together with 75 (72.1%) stating at least some level of agreement. Respondents also indicated that

administrators protect instruction and planning time with 72 (69.0%) indicating some level agreement. Respondents showed that “Leaders take time to praise teachers that perform well” with 72 (69.2%) indicating at least some level of agreement. For the statement, “Leaders support risk-taking and innovation in teaching,” 70 (67.3%) indicated at least some level of agreement. When presented with the statement “Teachers are kept informed on current issues in school,” 66 (63.4%) agreed or strongly agreed, and 23 (22.1%) responded with some level of disagreement. For the statement, “Teachers are involved in the decision-making process,” fewer than half (50, 48.1%) showed at least some level of agreement, 34 (32.7%) indicated some level of disagreement, and 20 (19.2%) indicated undecided. Another statement in the collaborative leadership area of school culture stated, “Teachers are rewarded for experimenting with new ideas and techniques.” Fewer than half (51, 49%) indicated at least some level of agreement. Similarly, when asked to respond to the statement, “My involvement in policy or decision making is taken seriously,” fewer than half (49, 47.1%) showed at least some level of agreement, and 25 (24%) indicated some level of disagreement.

Whole Sample Teacher Collaboration

There were six statements in the survey associated with teacher collaboration. The minimum composite score was 1.50 and maximum score of 4.67, with a mean of 3.19, and standard deviation of .67. For the statement, “Teachers have opportunities for dialogue and planning across grades and subjects,” 77 (74%) showed at least some level of agreement. This was the strongest response in the teacher collaboration area of school culture. Next, when asked to respond to the statement, “Teachers work together to develop and evaluate programs and projects,” 54 (53.4%) showed at least some level of agreement, and 28 (27.2%) were undecided. When asked to respond to a statement about teachers being aware of what other teachers taught,

51 (49.1%) indicated at least some level of agreement, and 32 (30.8%) indicated some level of disagreement. Not quite half of respondents (49, 47.2%) indicated disagreement with the statement, “Teachers take time to observe each other teaching.” When asked to reply to the statement, “Teachers spend considerable time planning together,” respondents were divided with 42 (40.4%) showing some level of disagreement, 42 (40.4%) indicated at least some level of agreement, and 20 (19.2%) were undecided. Finally, for the statement, “Teaching practice disagreements are voiced openly and discussed,” 41 (39.4%) indicated undecided, 32 (31.7%) indicated at least some level of agreement, and 29 (28.8%) showed some level of disagreement.

Whole Sample Unity of Purpose

There were five statements associated with unity of purpose. The minimum composite score was 1.00 and the maximum score was 5.00, with a mean of 3.64, and standard deviation of .73. For the statement, “Teachers support the mission of the school,” the majority (82, 78.8%) indicated at least some level of agreement. For the statement, “The school mission statement reflects the values of the community,” 75 (72.1%) indicated some level of agreement, and only 8 (7.7%) showed any level of disagreement. When responding to “Teaching performance reflects the mission of the school,” 68 (66%) indicated at least some level of agreement, and there were 25 (24.3%) that indicated they were undecided. Respondents generally agreed with the statement, “Teachers understand the mission of the school” with 67 (64.4%) indicating at least some level of agreement. When asked to respond to the statement, “The school mission provide a clear sense of direction for teachers,” over half (61, 58.7%) indicated at least some level of agreement.

Whole Sample Professional Development

Participants responded to five statements associated with professional development. The minimum composite score was 1.40 and maximum of 5.00, with a mean of 3.78, and standard deviation of .52. When asked to respond to the statement, "Teachers maintain a current knowledge base about the learning process," an overwhelming majority (91, 87.5%) agreed in some form. There were 87 (83.7%) in agreement with the statement, "The faculty values school improvement." Only 5 (4.8%) indicated some level of disagreement. For the statement, "Teachers utilize professional networks to obtain information and resources for classroom instruction," a majority (83, 80.5%) demonstrated at least some level of agreement. The most frequent response was agree with 64 of the 81 responses stating agreement. For the statement, "Teachers take time to observe each other teaching," 49 (47.2%) indicated some level of disagreement. There were 22 (21.2%), who were undecided, and 33 (31.7%) indicated at least some level of agreement. For the survey statement, "Teaching practice disagreements are voiced openly and discussed," 41 (39.4%) of the respondents were undecided. A total of 33 (31.7%) indicted at least some level of agreement, and 29 (28.8%) indicated some level of disagreement.

Whole Sample Collegial Support

There were four survey statements associated with collegial support. The minimum composite score was 1.25 and maximum score was 5.00, with a mean of 3.95, and standard deviation of .62. Nearly everyone (96, 92.3%) stated agreement with the statement, "Teachers are willing to help out whenever there is a problem." Respondents indicated at least some level of agreement (85, 83.3%) with the statement, "Teachers' ideas are valued by other teachers." Merely 3 (3%) indicated any disagreement. Respondents also indicated strong support for the statement, "Teachers work cooperatively in groups" with 85 (81.8%) indicating at least some

level of agreement. For the statement, “Teachers trust each other,” fewer respondents showed at least some level of agreement (66, 63.4%). There were 25 (24%) that indicated they were undecided.

Whole Sample Learning Partnership

Four of the 35 survey statements related to learning partnership. The minimum score was 1.00 and the maximum score was 4.75, with a mean of 3.23, and standard deviation of .70. For the statement, “Teachers and parent have common expectation for student performance,” more than a third of the respondents (39, 37.5%) indicated some degree of disagreement. There were 44 (42.3%) that indicated some type of agreement. Almost half of the respondents (51, 49.0%) indicated at least some level of agreement to the statement, “Parents trust teachers’ professional judgements.” There were 37 (35.6%) that were undecided. A total of 62 (59.6%) indicated at least some level of agreement with the statement, “Teachers and parents communicate frequently about student performance.” Some of the respondents indicated disagreement (19, 17.3%). Half of the survey respondents (52, 50.0%) indicated at least some level of agreement with the statement, “Students generally accept responsibility for their schooling, for example they engage mentally in class and complete home assignments.” A total of 36 (34.7%) indicated some degree of disagreement.

Urban Collaborative Leadership

Table 3 indicates those that responded from urban schools. Thirty-nine (37.5%) respondents were from this school location type. Table 1 shows the descriptive data for respondents that responded to school culture in the area of collaborative leadership.

Table 3

Urban Respondents' Agreement Levels on Collaborative Leadership

Statement	Strongly Disagree *n* (%)	Disagree *n* (%)	Undecided *n* (%)	Agree *n* (%)	Strongly Agree *n* (%)
Leaders value teachers' ideas	2 (5.1%)	4 (10.3%)	10 (25.6%)	17 (43.6%)	6 (15.4%)
Leaders trust teachers' judgments	1 (2.6%)	7 (17.9%)	10 (25.6%)	15 (38.5%)	6 (15.4%)
Leaders praise teachers	1 (2.6%)	9 (23.1%)	4 (10.3%)	21 (53.8%)	4 (10.3%)
Teachers involved in decision making	4 (10.3%)	10 (25.6%)	5 (12.8%)	17 (43.6%)	3 (7.7%)
Leaders facilitate teachers working together	1 (2.6%)	3 (7.7%)	9 (23.1%)	22 (56.4%)	4 (10.3%)
Teachers kept informed	5 (12.8%)	6 (15.4%)	6 (15.4%)	16 (41.0%)	6 (15.4%)
My involvement in decisions taken seriously	1 (2.6%)	7 (17.9%)	6 (15.4%)	22 (56.4%)	3 (7.7%)
Teachers rewarded for experimenting	3 (7.7%)	5 (12.8%)	15 (38.5%)	12 (30.8%)	4 (10.3%)
Leaders support innovation	2 (5.1%)	1 (2.6%)	10 (25.6%)	21 (53.8%)	5 (12.8%)
Administrators protect instructional time	3 (7.7%)	8 (20.5%)	5 (12.8%)	16 (41.0%)	7 (17.9%)
Teachers encouraged to share ideas	1 (2.6%)	3 (7.7%)	3 (7.7%)	22 (56.4%)	10 (25.6%)

Urban survey participants responded in a similar fashion with the whole sample for collaborative leadership category in which there were 11 total statements associated with collaborative leadership. There were 64.1% of urban respondents who agreed or strongly agreed with the statement, “Leaders take time to praise teachers that perform well” compared to 69.2% from the whole sample. Similarly, 51.3% of urban participants indicated at least some level of agreement compared to 48.1% in the whole sample with the statement, “Teachers are involved in the decision-making process.” For the statement, “Leaders in our school facilitate teachers working together,” 66.7% of urban participants indicated at least some level of agreement, and 72.0% did in the whole sample. There were 56.4% of urban respondents who indicated at least some level of agreement with the statement, “Teachers are kept informed on current issues in the school” compared to 63.4% in the whole sample. The data from urban participants were also similar for the statement, “My involvement in policy or decision making is taken seriously” with 28.8% of urban respondents indicating undecided compared to 28.2% in the whole sample. There was not much of a difference in the data for the statement, “Teachers are rewarded for experimenting with new ideas and techniques.” There were 41.1% of urban respondents who showed level of agreement compared to 49% in the whole sample. To the statement, “Leaders support risk-taking and innovation in teaching,” 66.6% of urban respondents indicated at least some level of agreement compared to 67.3% in the whole sample. Last, there was high agreement with the statement, “Teachers are encouraged to share ideas” with 82.0% of urban respondents indicating at least some level of agreement compared to 86.5% in the whole sample.

There were a few differences among urban respondents and the whole sample with urban respondents reporting less agreement. For example, the statement, “Leaders in this school trust the professional judgements of teachers” showed 53.9% of urban respondents showing at least

some level of agreement, and 68.3% of the whole sample indicated at least some level of agreement. Another example was respondents indicated some level of support for the statement "Administrators protect instruction and planning time" with 58.9% of urban participants compared to 69.2% in the whole sample. Another example was 59.0% of urban participants indicated some form of agreement with the statement, "Leaders value teachers' ideas" compared to 72.1% of the whole population.

Urban Teacher Collaboration

Table 4 indicates participants who responded from urban schools. Thirty-nine (37.5%) respondents were from this school location type. Table 4 shows the descriptive data for respondents that responded to school culture in the area of teacher collaboration.

Table 4

Urban Respondents' Agreement Levels on Teacher Collaboration

Statement	Strongly Disagree *n* (%)	Disagree *n* (%)	Undecided *n* (%)	Agree *n* (%)	Strongly Agree *n* (%)
Teacher have planning opportunities	1 (2.6%)	7 (17.9%)	3 (7.7%)	20 (51.3%)	8 (20.5%)
Teachers spend planning time together	1 (2.6%)	16 (41.0%)	3 (7.7%)	15 (38.5%)	4 (10.3%)
Teachers observe each other teaching	3 (7.7%)	18 (46.2%)	7 (17.9%)	9 (23.1%)	2 (5.1%)
Teachers are aware of other teaching	3 (7.7%)	11 (28.2%)	6 (15.4%)	16 (41.0%)	3 (7.7%)
Teachers work together on programs	2 (5.1%)	7 (17.9%)	11 (28.2%)	17 (43.6%)	2 (5.1%)
Teaching disagreements voiced	3 (7.7%)	9 (23.1%)	12 (30.8%)	14 (35.9%)	1 (2.6%)

Urban participants responded to six statements associated with teacher collaboration, and there was not much difference between urban responses and responses in the whole sample. With the statement, “Teachers have opportunities for dialogue and planning across grades and subjects,” 71% of urban respondents indicated at least some level of agreement compared to 74% in the whole sample. Another similar response was with the statement, “Teachers take time to observe each other teaching” where 53.9% of urban respondents indicated some level of disagreement. In the whole sample there were 47.2% that indicated some level of disagreement. Fewer than half of urban respondents (48.7%) indicated some form of agreement with the statement, “Teachers are generally aware of what other teachers are teaching” compared to 49.1% in the whole sample. For the statement, “Teachers work together to develop and evaluate programs and projects,” there were 48.7% of urban respondents that indicated some form of agreement compared to 53.4% in the whole sample. Data from the urban respondents were also similar to the whole sample for the statement, “Teaching practice disagreements are voiced openly and discussed” with 30.8% indicating some level of disagreement compared to 28.8% in the whole sample. Last, there was some similarity in respondent data for some level of disagreement with the statement, “Teachers spend considerable time planning together” with 43.6% of urban respondents compared to 40.4% in the whole sample.

Urban Unity of Purpose

Table 5 indicates those that responded from urban schools. Thirty-nine (37.5%) respondents were from this school location type. Table 1 shows the descriptive data for respondents that responded to school culture in the area of unity of purpose.

Table 5

Urban Respondents' Agreement Levels on Unity of Purpose

Statement	Strongly Disagree *n* (%)	Disagree *n* (%)	Undecided *n* (%)	Agree *n* (%)	Strongly Agree *n* (%)
Teachers support school mission	1 (2.6%)	6 (15.4%)	3 (7.9%)	23 (59.0%)	6 (15.4%)
School mission provides direction	2 (5.1%)	10 (25.6%)	7 (17.9%)	15 (38.5%)	5 (12.8%)
Teachers understand school mission	2 (5.1%)	6 (15.4%)	6 (15.4%)	22 (56.4%)	3 (7.7%)
School mission reflects community values	1 (2.6%)	4 (10.3%)	7 (17.9%)	24 (61.5%)	3 (7.7%)
Teaching performance reflects school mission	2 (5.1%)	3 (7.7%)	11 (28.2%)	20 (51.3%)	3 (7.7%)

Urban participants responded to five statements associated with unity of purpose. For the statement, "Teachers support the mission of the school," there was a difference in responses. There were 18.0% of urban respondents who indicated some level of disagreement compared to just 7.7% of the whole sample. Besides this dissimilarity, there was not much difference in the other statements. For example, 51.3% of urban respondents agreed in some form with the statement, "The school mission provides a clear sense of direction for teachers" compared to 58.3% in the whole sample. With the statement, "Teachers understand the mission of the school," 64.1% of urban respondents agreed in some form compared to 64.4% in the whole sample. There were 69.2% of urban respondents who agreed in some form with the statement, "The school mission statement reflects the values of the community," compared to 72.1% in the

whole sample. There were over half (59%) of the urban respondents who agreed in some form with the statement, “Teaching performance reflects the mission of the school” compared to 66% in the whole sample. Both groups had similar undecided response rates with urban respondents at 28.2% undecided and 24.3% in the whole sample.

Urban Professional Development

Table 6 indicates those that responded from urban schools. Thirty-nine (37.5%) respondents were from this school location type. Table 1 shows the descriptive data for respondents that responded to school culture in the area of professional development.

Table 6

Urban Respondents’ Agreement Levels on Professional Development

Statement	Strongly Disagree *n* (%)	Disagree *n* (%)	Undecided *n* (%)	Agree *n* (%)	Strongly Agree *n* (%)
Teachers utilize professional networks	1 (2.6%)	2 (5.3%)	3 (7.9%)	24 (63.2%)	8 (21.1%)
Teachers seek ideas	2 (5.1%)	4 (10.3%)	9 (23.1%)	23 (59.0%)	1 (2.6%)
Faculty values professional development	0 (0.0%)	3 (7.7%)	8 (20.5%)	23 (59.0%)	5 (12.8%)
Teachers maintain current knowledge base	0 (0.0%)	3 (7.7%)	1 (2.6%)	31 (79.5%)	4 (10.3%)
Faculty values school improvement	1 (2.6%)	2 (5.1%)	4 (10.3%)	25 (64.1%)	7 (17.9%)

There were five statements associated with professional development that urban participants responded to in the survey. The urban group had similar percentages of responses in the area of professional development. For example, the were 84.3% of urban respondents who

showed some form of agreement with the statement about teachers utilizing professional networks to support instruction compared to 80.5% in the whole sample. Another example was 61.6% of urban respondents agreed in some form with the statement, “Teachers regularly seek ideas from seminars, colleagues, and conferences” compared to 55.7% in the whole sample. Only 7.7% of urban respondents disagreed with the statement, “Teachers take time to observe each other teaching” compared to 9.6% in the whole sample. Both the urban respondents (89.8%) and whole sample (87.5%) demonstrated agreement in some form with the statement, “Teachers maintain a current knowledge base about the learning process,” A majority of both data sources indicated at least some level of agreement with the statement, “The faculty values school improvement” with urban responses being 82.0% and 83.7% in the whole sample.

Urban Collegial Support

Table 7 indicates those that responded from urban schools. Thirty-nine (37.5%) respondents were from this school location type. Table 1 shows the descriptive data for respondents that responded to school culture in the area of collegial support.

Table 7

Urban Respondents' Agreement Levels on Collegial Support

Statement	Strongly Disagree *n* (%)	Disagree *n* (%)	Undecided *n* (%)	Agree *n* (%)	Strongly Agree *n* (%)
Teachers trust each other	1 (2.6%)	4 (10.3%)	14 (35.9%)	16 (41.0%)	4 (10.3%)
Teachers willing to help with problems	1 (2.6%)	2 (5.1%)	2 (5.1%)	20 (51.3%)	14 (35.9%)
Teachers' ideas valued by other teachers	1 (7.7%)	0 (0%)	5 (13.2%)	26 (68.4%)	6 (15.8%)
Teachers work cooperatively groups	0 (0.0%)	5 (12.8%)	1 (2.6%)	27 (69.2%)	6 (15.4%)

Urban respondents responded to four survey statements associated with collegial support. There was a slight difference in responses to the statement, "Teachers trust each other." There were 51.3% of the urban respondents who agreed in some form as opposed to 63.4% in the whole sample. Another difference was the undecided response. Of the urban sample, 35.9% were undecided compared to 24% of the whole sample. There was very little difference in the data from the other three statements. For example, 87.2% of urban respondents agreed in some form with the statement, "Teachers are willing to help out whenever there is a problem" compared to 92.3% in the whole sample. There was support for the statement, "Teachers' ideas are valued by other teachers" with 84.2% in the urban group and 83.3% of the whole sample agreeing in some form. There were 75.6% of the urban group that agreed in some form with the statement, "Teachers work cooperatively in groups," compared to 81.8% of the whole sample.

Urban Learning Partnership

Table 8 indicates those that responded from urban schools. Thirty-nine (37.5%) respondents were from this school location type. Table 1 shows the descriptive data for respondents that responded to school culture in the area of learning partnership.

Table 8

Urban Respondents' Agreement Levels on Learning Partnership

Statement	Strongly Disagree *n* (%)	Disagree *n* (%)	Undecided *n* (%)	Agree *n* (%)	Strongly Agree *n* (%)
Teachers and parents common expectations	3 (7.7%)	14 (35.9%)	8 (20.5%)	14 (35.9%)	0 (0.0%)
Parents trust teachers	2 (5.1%)	3 (7.7%)	14 (35.9%)	19 (48.7%)	1 (2.6%)
Teachers and parents communicate frequently	1 (2.6%)	7 (17.9%)	6 (15.4%)	22 (56.4%)	3 (7.7%)
Students accept responsibility	5 (12.8%)	11 (28.2%)	7 (17.9%)	15 (38.5%)	1 (2.6%)

There were four statements associated with the area of learning partnership for urban participants. The urban group had a similar percentage of respondents in the area of learning partnership as the whole sample data. About half of the urban respondents (51.3%) and the whole sample (49%) agreed in some form with the statement, "Parents trust teachers' professional judgements." Responses were similar to the statement, "Teachers and parents communicate frequently about student performance" with 64.1% of urban respondents agreeing in some form compared to 59.6% in the whole sample. There were slight differences in the data for the statement, "Students generally accept responsibility for their schooling, for example they

engage mentally in class and complete homework assignments." Only 41.1% of urban respondents agreed in some form as opposed to 50.0% in the whole sample. Another difference in the data was found in the statement, "Teachers and parents have common expectations for student performance." There were 43.6% of urban respondents who disagreed in some form compared to 37.5% of the whole sample.

Suburban Collaborative Leadership

Table 9 indicates those that responded from suburban schools. Thirty-four (32.7%) respondents were from this school location type. Table 1 shows the descriptive data for respondents that responded to school culture in the area of collaborative leadership.

Table 9

Suburban Respondents' Agreement Levels on Collaborative Leadership

Statement	Strongly Disagree *n* (%)	Disagree *n* (%)	Undecided *n* (%)	Agree *n* (%)	Strongly Agree *n* (%)
Leaders value teachers' ideas	2 (5.9%)	3 (8.8%)	3 (8.8%)	21 (61.8%)	5 (14.7%)
Leaders trust teachers' judgments	1 (2.9%)	3 (8.8%)	5 (14.7%)	18 (52.9%)	7 (20.6%)
Leaders praise teachers	1 (2.9%)	5 (14.7%)	1 (2.9%)	17 (50.0%)	10 (29.4%)
Teachers involved in decision making	0 (0.0%)	11 (32.4%)	9 (26.5%)	10 (29.4%)	4 (11.8%)
Leaders facilitate teachers working together	0 (0.0%)	0 (0.0%)	8 (23.5%)	18 (52.9%)	8 (23.5%)
Teachers kept informed	0 (0.0%)	3 (8.8%)	4 (11.8%)	20 (58.8%)	7 (20.6%)
My involvement in decisions taken seriously	1 (2.9%)	5 (14.7%)	10 (29.4%)	17 (50.0%)	1 (2.9%)
Teachers rewarded for experimenting	0 (0.0%)	6 (17.6%)	9 (26.5%)	13 (38.2%)	6 (17.6%)
Leaders support innovation	1 (2.9%)	3 (8.8%)	8 (23.5%)	17 (50.0%)	5 (14.7%)
Administrators protect instructional time	0 (0.0%)	0 (0.0%)	10 (29.4%)	20 (58.8%)	4 (11.8%)
Teachers encouraged to share ideas	1 (2.6%)	3 (7.7%)	3 (7.7%)	22 (56.4%)	10 (25.6%)

Suburban participants responded to 11 statements associated with collaborative leadership in the survey. Overall, there were slight differences in the suburban data compared to

the whole sample. Suburban respondents were more likely to agree or strongly agree with the statement, “Leaders value teachers’ ideas.” There were 76.5% of respondents from the suburban group who indicated at least some level of agreement compared to 72.1% of respondents from the whole sample. There were 73.5% of respondents from the suburban group who agreed in some form with the statement, “Leaders in this school trust the professional judgements of teachers” compared to 68.3% of the whole sample. Suburban respondents were more likely to agree in some form with the statement, “Leaders take time to praise teachers that perform well” than the whole sample. There were 79.4% of suburban respondents in some form of agreement as opposed to 69.2% in the whole sample. With the statement, “Teachers are involved in the decision-making process,” only 41.2% from the suburban group agreed in some form compared to 48.1% in the whole sample. Both groups responded similarly in some form of disagreement with the suburban group at 32.4% and the whole sample 32.7%. There were not any respondents in the suburban group that indicated disagreement with the statement, “Leaders in our school facilitate teachers working together” compared to 7.7% in the whole sample. There was a difference in the data for the statement, “Teachers are kept informed on current issues in the school.” There were 79.4% of suburban respondents who indicated some form of agreement compared to only 63.4% in the whole sample. There were 24.0% from the whole sample that disagreed in some form with the statement, “My involvement in policy or decision making is taken seriously” compared to only 17.6% of suburban respondents. Other statements were responded to in similar fashion with only slight differences between the whole sample and the suburban respondents. For example, 55.8% of suburban respondents indicated at least some level of agreement with the statement, “Teachers are rewarded for experimenting with new ideas and techniques” compared to 49% in whole sample. To the statement, “Leaders support risk-taking

and innovation in teaching," 23.5% of suburban respondents were undecided compared to 23.1% in the whole sample. Another example was responses to the statement, "Administrators protect instruction and planning time." There were 70.6% of suburban respondents who indicated some form of agreement and 69.2% in the whole sample. However, there were not any who disagreed at all from the suburban group, and there were 13.5% from the suburban group who disagreed in some form. Last, both groups strongly supported the statement, "Teachers are encouraged to share ideas" with 91.2% of the suburban group indicating at least some level of agreement compared to 86.5% in the whole sample

Suburban Teacher Collaboration

Table 10 indicates those that responded from suburban schools. Thirty-four (32.7%) respondents were from this school location type. Table 1 shows the descriptive data for respondents that responded to school culture in the area of teacher collaboration.

Table 10

Suburban Respondents' Agreement Levels on Teacher Collaboration

Statement	Strongly Disagree *n* (%)	Disagree *n* (%)	Undecided *n* (%)	Agree *n* (%)	Strongly Agree *n* (%)
Teacher have planning opportunities	2 (5.9%)	7 (20.6%)	1 (2.9%)	22 (64.7%)	2 (5.9%)
Teachers spend planning time together	5 (14.7%)	8 (23.5%)	11 (32.4%)	8 (23.5%)	2 (5.9%)
Teachers observe each other teaching	1 (2.9%)	10 (29.4%)	9 (26.5%)	14 (41.2%)	0 (0.0%)
Teachers are aware of other teaching	2 (5.9%)	9 (26.5%)	9 (26.5%)	11 (32.4%)	3 (8.8%)
Teachers work together on programs	0 (0.0%)	5 (14.7%)	10 (29.4%)	17 (50.0%)	2 (5.9%)
Teaching disagreements voiced	1 (2.9%)	6 (17.6%)	16 (47.1%)	10 (29.4%)	1 (2.9%)

The suburban group responded to six statements associated with teacher collaboration. Suburban respondents were less likely to agree with the statement, "Teacher have opportunities for dialogue and planning across grades and subjects." There were 70.6% of suburban respondents who indicated at least some level of agreement compared to 74% in the whole sample. There were 29.4% of suburban respondents who indicated at least some level of agreement compared to 40.4% in the whole sample to the statement, "Teachers spend considerable time planning together." There were 47.2% from the whole sample that disagreed in some form with the statement, "Teachers take time to observe each other teaching" as opposed to only 32.3% from the suburban group. There were 49.1% of the whole sample that agreed in

some form with the statement, “Teachers are generally aware of what other teachers are teaching” compared to only 41.2% of the suburban group. For the statement, “Teachers work together to develop and evaluate programs and projects,” both groups responded similarly with 55.9% of the suburban group indicating some form of agreement compared to 53.4% in the whole sample. Last, there were only 32.3% of respondents from the suburban group who agreed in some form with the statement, “Teaching practice disagreements are voiced openly and discussed” compared to 31.7% in the whole sample.

Suburban Unity of Purpose

Table 11 indicates those that responded from suburban schools. Thirty-four (32.7%) respondents were from this school location type. Table 1 shows the descriptive data for respondents that responded to school culture in the area of unity of purpose.

Table 11

Suburban Respondents’ Agreement Levels on Unity of Purpose

Statement	Strongly Disagree *n* (%)	Disagree *n* (%)	Undecided *n* (%)	Agree *n* (%)	Strongly Agree *n* (%)
Teachers support school mission	0 (0.0%)	0 (0.0%)	4 (11.8%)	24 (70.6%)	6 (17.6%)
School mission provides direction	1 (2.9%)	2 (5.9%)	7 (20.6%)	22 (64.7%)	2 (5.9%)
Teachers understand school mission	0 (0.0%)	4 (11.8%)	7 (20.6%)	20 (58.8%)	3 (8.8%)
School mission reflects community values	0 (0.0%)	3 (8.8%)	6 (17.6%)	21 (61.8%)	4 (11.8%)
Teaching performance reflects school mission	0 (0.0%)	4 (12.1%)	7 (21.2%)	19 (57.6%)	3 (9.1%)

Suburban respondents provided feedback on five statements associated with unity of purpose. For the statement, “Teachers support the mission of the school,” both groups strongly agreed in some form with 88.2% of the suburban group indicating at least some level of agreement compared to 78.8% in the whole sample. There were not any disagreements in any form from the suburban group compared to 7.7% in the whole sample. The suburban group was more likely to agree with the statement, “The school mission provides a clear sense of direction for teachers” with 70.6% of suburban respondents indicating some form of agreement compared to only 58.7% in the whole sample. Similarly, there were only 8.8% of suburban respondents who disagreed in some form with the same statement as opposed to 24% in the whole sample. To the statement, “Teachers understand the mission of the school,” there were 67.6% of suburban respondents who indicated at least some level of agreement compared to 64.4% in the whole sample. Similar data were found for the statement, “The school mission statement reflects the values of the community.” There were 73.6% of suburban respondents who indicated some level of support compared to 72.1% from the whole sample. Finally, there was similar agreement with the statement, “Teaching performance reflects the mission of the school” with 66.7% of suburban respondents agreeing in some form compared to 66% from the whole sample.

Suburban Professional Development

Table 12 indicates those that responded from suburban schools. Thirty-four (32.7%) respondents were from this school location type. Table 1 shows the descriptive data for respondents that responded to school culture in the area of professional development.

Table 12

Suburban Respondents' Agreement Levels on Professional Development

Statement	Strongly Disagree *N* (%)	Disagree *N* (%)	Undecided *N* (%)	Agree *N* (%)	Strongly Agree *N* (%)
Teachers utilize professional networks	2 (5.9%)	1 (2.9%)	5 (14.7%)	20 (58.8%)	6 (17.6%)
Teachers seek ideas	0 (0.0%)	8 (23.5%)	10 (29.4%)	14 (41.2%)	2 (5.9%)
Faculty values professional development	0 (0.0%)	1 (2.9%)	6 (17.6%)	18 (52.9%)	9 (26.5%)
Teachers maintain current knowledge base	0 (0.0%)	3 (8.8%)	2 (5.9%)	25 (73.5%)	4 (11.8%)
Faculty values school improvement	0 (0.0%)	1 (2.9%)	6 (17.6%)	18 (52.9%)	9 (26.5%)

Suburban participants responded to five statements associated with professional development. There were 80.5% of suburban respondents who demonstrated some form of agreement with the statement, "Teachers utilize professional networks to obtain information and resources for classroom instruction" compared to 76.4% from the whole sample. Suburban respondents were less likely to agree with the statement, "Teachers regularly seek ideas from seminars, colleagues, and conferences." There were only 47.5% of responses from suburban participants compared to 55.7% from the whole sample. Suburban responses were similar to the whole sample for the statement, "Professional development is valued by the faculty." There were 70.6% of responses from the suburban participants that agreed in some form compared to 68.3% from the whole sample. Suburban responses to the statement, "Teachers maintain a current knowledge base about the learning process" were also similar to the whole sample with 85.3% of

suburban responses that agreed in some form compared to 87.5% from the whole sample. Finally, there was not much difference in responses to the statement, "The faculty values school improvement." There were 79.4% of suburban respondents who agreed in some form compared 83.7% from the whole sample.

Suburban Collegial Support

Table 13 indicates those that responded from suburban schools. Thirty-four (32.7%) respondents were from this school location type. Table 1 shows the descriptive data for respondents that responded to school culture in the area of collegial support.

Table 13

Suburban Respondents' Agreement Levels on Collegial Support

Statement	Strongly Disagree *n* (%)	Disagree *n* (%)	Undecided *n* (%)	Agree *n* (%)	Strongly Agree *n* (%)
Teachers trust each other	0 (0.0%)	6 (17.6%)	4 (11.8%)	17 (50.0%)	7 (20.6%)
Teachers willing to help with problems	0 (0.0%)	1 (2.9%)	2 (5.9%)	15 (44.1%)	16 (47.1%)
Teachers' ideas valued by other teachers	0 (0.0%)	2 (5.9%)	4 (11.8 %)	22 (64.7%)	6 (17.6%)
Teachers work cooperatively groups	0 (0.0%)	2 (5.9%)	6 (17.6%)	21 (61.8%)	5 (14.7%)

Suburban participants responded to four statements related to collegial support. Suburban respondents were more likely to agree in some form with the statement, "Teachers trust each other" with 70% of suburban respondents compared to 63.4% from the whole sample. For the statement, "Teachers are willing to help out whenever there is a problem," 91.2% of the

suburban respondents agreed in some form, and 92.3% agreed in some form from the whole sample. A similar response was found with the statement, “Teachers’ ideas are valued by other teachers.” There were 82.3% of suburban respondents and 83.3% from the whole sample that agreed in some form with the statement. For the survey statement, “Teachers work cooperatively in groups,” there were 76.5% of suburban respondents compared to 81.8% from the whole sample that agreed in some form with the statement.

Suburban Learning Partnership

Table 14 indicates those that responded from suburban schools. Thirty-four (32.7%) respondents were from this school location type. Table 1 shows the descriptive data for respondents that responded to school culture in the area of learning partnership.

Table 14

Suburban Respondents’ Agreement Levels on Learning Partnership

Statement	Strongly Disagree *n* (%)	Disagree *n* (%)	Undecided *n* (%)	Agree *n* (%)	Strongly Agree *n* (%)
Teachers and parents common expectations	0 (0.0%)	12 (35.3%)	6 (17.6%)	16 (47.1%)	0 (0.0%)
Parents trust teachers	0 (0.0%)	4 (11.8%)	12 (35.3%)	17 (50.0%)	1 (2.9%)
Teachers and parents communicate frequently	0 (0.0%)	8 (23.5%)	11 (32.4%)	15 (44.1%)	0 (0.0%)
Students accept responsibility	2 (5.9%)	7 (20.6%)	4 (11.8%)	20 (58.8%)	1 (2.9%)

Respondents from the suburban group responded to four statements related to learning partnership. Suburban respondents were in more agreement with the statement, “Teachers and

parents have common expectations for student performance." There were 47.1% of suburban respondents who agreed in some form compared to 42.3% from the whole sample. Additionally, over one-third of responses disagreed in some fashion with 35.3% of suburban respondents compared to 37.5% from the whole sample. The suburban group responded similarly to the whole sample for the statement, "Parents trust teachers' professional judgement." There were 52.9% of suburban respondents who agreed in some form with the statement compared to 49% from the whole sample. Responses regarding the statement, "Teachers and parents communicate frequently about student performance" yielded a difference in the data. There were only 44.1% of suburban respondents who agreed in some form with the statement compared to 59.6% from the whole sample. Last, another difference was noted in the data for the statements, "Students generally accept responsibility for their schooling, for example they engage mentally in class homework assignments." Suburban respondents were more likely to agree, with 61.7% agreeing at some level compared to 50% from the whole sample.

Rural Collaborative Leadership

Table 15 indicates those that responded from rural schools. Thirty-one (29.8%) respondents were from this school location type. Table 1 shows the descriptive data for respondents who responded to school culture in the area of collaborative leadership.

Table 15

Rural Respondents' Agreement Levels on Collaborative Leadership

Statement	Strongly Disagree *n* (%)	Disagree *n* (%)	Undecided *n* (%)	Agree *n* (%)	Strongly Agree *n* (%)
Leaders value teachers' ideas	1 (3.2%)	2 (6.5%)	2 (6.5%)	19 (51.3%)	7 (22.6%)
Leaders trust teachers' judgments	0 (0.0%)	3 (9.7 %)	3 (9.7%)	19 (61.3%)	6 (19.4%)
Leaders praise teachers	1 (3.2%)	6 (19.4%)	4 (12.9%)	14 (45.2%)	6 (19.4%)
Teachers involved in decision making	1 (3.2%)	8 (25.8%)	6 (19.4%)	10 (32.3%)	6 (19.4%)
Leaders facilitate teachers working together	1 (3.2%)	3 (9.7%)	4 (12.9%)	16 (51.6%)	7 (22.6%)
Teachers kept informed	1 (3.2%)	8 (25.8%)	5 (16.1%)	15 (48.4%)	2 (6.5%)
My involvement in decisions taken seriously	2 (6.5)	4 (12.9%)	9 (29.0%)	12 (38.7%)	4 (12.9%)
Teachers rewarded for experimenting	1 (3.2%)	5 (16.1%)	9 (29.0 %)	13 (41.9%)	3 (9.7%)
Leaders support innovation	1 (3.2%)	2 (6.5%)	6 (19.4%)	17 (54.8%)	5 (16.1%)
Administrators protect instructional time	0 (0.0%)	3 (9.7%)	3 (9.7%)	16 (51.6%)	9 (29.0%)
Teachers encouraged to share ideas	0 (0.0%)	2 (6.5%)	2 (6.5%)	15 (48.4 %)	12 (38.7%)

Rural participants responded to 11 statements connected to collaborative leadership. Rural respondents were more likely to support the statement, "Leaders value teachers' ideas."

There were 83.9% of rural responses that agreed in some form compared to 72.1% from the whole sample. Data from a few other statements were similar for rural respondents. With the statement, “Leaders in this school trust the professional developments of teachers,” there were 80.7% of rural respondents who agreed in some fashion compared to 68.3% from the whole sample. There were 80.6% of rural respondents who agreed in some form with the statement, “Administrators protect instruction and planning time,” compared to 69.2% from the whole sample. There was little difference in other statements in the area of collaborative leadership. For example, 22.6% of rural respondents indicated disagreement in some form with the statement, “Leaders take time to praise teachers that perform well” compared to 22.1% from the whole sample. Just under half of the whole sample (48.1%) reported at least some level of agreement compared to just over half (51.7%) of the rural group with the statement, “Teachers are involved in the decision-making process.” There were 74.2% of rural respondents who agreed in some form with the statement, “Leaders in our school facilitate teachers working together,” compared to 72.1% from the whole sample. Another example was 51.6% of rural respondents indicated agreement in some form with the statement, “Teachers are rewarded for experimenting with new ideas and techniques” and 49% agreed in some form from the whole sample. There were 86.5% from the whole sample that agreed in some form compared to 87.1% of rural respondents that agreed in some form with the statement, “Teachers are encouraged to share ideas.” There were some differences in the area of collaborative leadership. For instance, there were only 54.9% of rural respondents and 63.4% from the whole sample that agreed in some form with the statement, “Teachers are kept informed on current issues in the school.” To the statement, “My involvement in policy or decision making is taken seriously, there were 51.6% of rural respondents and 47.1% from the whole sample that indicated agreement in some form. Last, rural respondents were

slightly more likely to agree with the statement, “Leaders support risk-taking and innovation in teaching.” There were 70.9% of rural respondents and 67.3% from the whole sample that agreed in some form with the statement.

Rural Teacher Collaboration

Table 16 indicates those that responded from rural schools. Thirty-one (29.8%) respondents were from this school location type. Table 1 shows the descriptive data for respondents that responded to school culture in the area of teacher collaboration.

Table 16

Rural Respondents’ Agreement Levels on Teacher Collaboration

Statement	Strongly Disagree *n* (%)	Disagree *n* (%)	Undecided *n* (%)	Agree *n* (%)	Strongly Agree *n* (%)
Teacher have planning opportunities	0 (0.0%)	4 (12.9%)	2 (76.5%)	17 (54.8%)	8 (25.8%)
Teachers spend planning time together	1 (3.2%)	11 (35.5%)	6 (19.4%)	8 (25.8%)	5 (16.1%)
Teachers observe each other teaching	5 (16.1%)	12 (38.7%)	6 (19.4%)	7 (22.6%)	1 (3.2%)
Teachers are aware of other teaching	1 (3.2%)	61 (19.4%)	6 (19.4%)	15 (48.4%)	3 (9.7%)
Teachers work together on programs	1 (3.3%)	5 (16.7%)	7 (23.3%)	12 (40.0%)	5 (16.7%)
Teaching disagreements voiced	1 (3.2%)	10 (32.3%)	13 (41.9%)	5 (16.1%)	2 (6.5%)

Rural participants responded to six statements connected to teacher collaboration. Regarding the statement, “Teachers have opportunities for dialogue and planning across grades

and subjects," there were 80.6% of rural respondents who were in some form of agreement. Of the whole sample, 74% were in some form of agreement. The rural group had a similar response to the statement, "Teachers spend considerable time planning together." There were 41.9% of rural respondents who were in some form of agreement compared to 40.4% from the whole sample. Rural respondents were more likely to disagree with the statement, "Teachers take time to observe each other." There were 54.8% of rural respondents who disagreed in some form compared to 47.2% in the whole sample that were in some form of disagreement. Rural respondents were more likely to agree with the statement, "Teachers are generally aware of what other teachers are teaching." There were 58.1% of rural respondents who agreed in some form compared to 49.1% in the whole sample. Rural respondents were slightly more likely to be in agreement with the statement, "Teachers work together to develop and evaluate programs and projects." There were 56.7% of rural respondents who agreed in some form compared to 53.4% from the whole sample. Last, there was a difference in responses for the statement, "Teaching practice disagreements are voiced openly and discussed." Of the whole sample, 31.7% indicated agreement in some form compared to only 22.6% of the rural respondents who demonstrated agreement in some form.

Rural Unity of Purpose

Table 17 indicates those that responded from rural schools. Thirty-one (29.8%) respondents were from this school location type. Table 1 shows the descriptive data for respondents that responded to school culture in the area of unity of purpose.

Table 17

Rural Respondents' Agreement Levels on Unity of Purpose

Statement	Strongly Disagree *n* (%)	Disagree *n* (%)	Undecided *n* (%)	Agree *n* (%)	Strongly Agree *n* (%)
Teachers support school mission	0 (0.0%)	1 (3.2%)	7 (22.6%)	18 (58.1%)	5 (16.1%)
School mission provides direction	1 (3.2%)	9 (29.0%)	4 (12.9%)	13 (41.9%)	4 (12.9%)
Teachers understand school mission	0 (0.0%)	6 (19.4%)	6 (19.4%)	13 (41.9%)	6 (19.4%)
School mission reflects community values	0 (0.0%)	0 (0.0%)	78 (25.8%)	17 (54.8%)	6 (19.4%)
Teaching performance reflects school mission	0 (0.0%)	1 (3.2%)	7 (22.6%)	22 (71.0%)	1 (3.2%)

Rural participants responded to five statements connected to unity of purpose. Rural respondents were less likely to support a few statements in the unity of purpose category. There were 74.2% of rural respondents compared to 78.8% from the whole sample that indicated agreement in some form with the statement, "Teachers support the mission of the school." For the statement, "The school mission provides a clear sense of direction for teachers," there were only 54.8% of rural respondents and 58.7% of the whole sample that indicated agreement in some form. Similarly, there were 61.3% of rural respondents and 64.4% from the whole sample that indicated agreement in some form to the statement, "Teachers understand the mission of the school." For the statement, "The school mission statement reflects the values of the community," there were 64.2% of rural respondents and 72.1% of the whole sample that agreed in some way

with the statement. No respondents from the rural group (0.0%) disagreed in any fashion with the statement on the school mission reflecting the community compared to 7.7% of the whole sample. Last, the rural group was more likely to be in agreement with the statement, "Teaching performance reflects the mission of the school." There were 74.2% of rural respondents compared to 66% of the whole sample that were in some form of agreement with the statement.

Rural Professional Development

Table 18 indicates those that responded from rural schools. Thirty-one (29.8%) respondents were from this school location type. Table 1 shows the descriptive data for respondents that responded to school culture in the area of professional development.

Table 18

Rural Respondents' Agreement Levels on Professional Development

Statement	Strongly Disagree *n* (%)	Disagree *n* (%)	Undecided *n* (%)	Agree *n* (%)	Strongly Agree *n* (%)
Teachers utilize professional networks	1 (3.2%)	3 (9.7%)	2 (6.5%)	20 (64.5%)	5 (16.1%)
Teachers seek ideas	0 (0.0%)	8 (25.8%)	5 (16.1%)	14 (45.2%)	4 (12.9%)
Faculty values professional development	0 (0.0%)	3 (9.7%)	9 (29.0%)	17 (54.8%)	2 (6.5%)
Teachers maintain current knowledge base	0 (0.0%)	2 (6.5%)	2 (6.5%)	17 (54.8%)	10 (32.3%)
Faculty values school improvement	0 (0.0%)	1 (3.2%)	2 (6.5%)	22 (71.0%)	6 (19.4%)

Rural participants responded to five statements connected to professional development. There were 58.15% of rural respondents and 55.7% of the whole sample that indicated some

form of agreement with the statement, “Teachers regularly seek ideas from seminars, colleagues, and conferences.” Rural respondents were less likely to agree with the statement, “Professional development is valued by the faculty.” There were 61.3% of rural respondents compared to 68.3% from the whole sample that agreed in some form with the statement. Rural respondents reported similar data as the whole sample for the statement, “Teachers maintain a current knowledge base about the learning process.” There were 87.1% of rural respondents and 87.5% of the whole sample that indicated agreement in some form with the statement. For the last statement in the professional development category, rural respondents were more likely to agree with the statement, “The faculty values school improvement.” There were 83.7% of the whole sample and 90.4% of rural respondents who agreed in some form with the statement.

Rural Collegial Support

Table 19 indicates those that responded from rural schools. Thirty-one (29.8%) respondents were from this school location type. Table 1 shows the descriptive data for respondents that responded to school culture in the area of collegial support.

Table 19

Rural Respondents' Agreement Levels on Collegial Support

Statement	Strongly Disagree *n* (%)	Disagree *n* (%)	Undecided *n* (%)	Agree *n* (%)	Strongly Agree *n* (%)
Teachers trust each other	0 (0.0%)	2 (6.5%)	7 (22.6%)	18 (58.1%)	4 (12.9%)
Teachers willing to help with problems	0 (0.0%)	0 (0.0%)	0 (0.0%)	18 (58.1%)	13 (41.9%)
Teachers' ideas valued by other teachers	0 (0.0%)	0 (0.0%)	5 (16.7%)	21 (70.0%)	4 (13.3%)
Teachers work cooperatively in groups	0 (0.0%)	3 (9.7%)	2 (6.5%)	18 (58.1%)	8 (25.8%)

Rural participants responded to four statements connected to collegial support. The rural group was more likely to agree with the statement, "Teachers trust each other." There were 71.0% of rural respondents compared to 63.4% of the whole sample that agreed in some fashion with the statement. The statement, "Teachers are willing to help out whenever there is a problem" yielded similar results with 100% of rural respondents and 92.3% of the whole sample that indicated agreement in some form. Similarly, there were 83.3% of both groups that indicated agreement in some form with the statement, "Teachers' ideas are valued by other teachers." No respondents from the rural group (0.0%) indicated disagreement in any form with the statement compared to 3.0% of the whole sample. There were similar responses for the statement, "Teachers work cooperatively in groups." There were only 9.7% of rural respondents and 9.6% of the whole sample that indicated disagreement in some form.

Rural Learning Partnership

Table 20 indicates those that responded from rural schools. Thirty-one (29.8%) respondents were from this school location type. Table 1 shows the descriptive data for respondents that responded to school culture in the area of learning partnership.

Table 20

Rural Respondents' Agreement Levels on Learning Partnership

Statement	Strongly Disagree *n* (%)	Disagree *n* (%)	Undecided *n* (%)	Agree *n* (%)	Strongly Agree *n* (%)
Teachers' and parents' common expectations	0 (0.0%)	10 (32.3%)	7 (22.6%)	13 (41.9%)	1 (3.2%)
Parents trust teachers	2 (6.5%)	5 (16.1%)	11 (35.5%)	11 (35.5%)	2 (6.5%)
Teachers and parents communicate frequently	0 (0.0%)	3 (9.7%)	6 (19.4%)	19 (61.3%)	3 (9.7%)
Students accept responsibility	2 (6.5%)	9 (29.0%)	5 (16.1%)	14 (45.2%)	1 (3.2%)

Rural participants responded to four statements connected to learning partnership. There were minor differences between the rural group and the whole sample in the area of learning partnership. There were 45.1% of rural respondents and 42.3% of the whole sample that agreed in some form with the statement, "Teachers and parents have common expectations for student performance." For the statement, "Parents trust teachers' professional judgements," there were 49% of the whole sample and 42.0% of rural respondents who indicated agreement in some form. There were 71% of rural respondents and 59.6% of the whole sample that indicated agreement in some form with the statement, "Teachers and parents communicate frequently

about student performance." With the statement, "Students generally accept responsibility for their schooling; for example, they engage mentally in class and complete homework assignments," there were 35.5% of rural respondents and 34.7% of the whole sample who indicated disagreement in some form. Under half the rural respondents (48.4%) and 50.0% of the whole sample agreed in some form with the statement.

Inferential Data

The null hypotheses were stated and tested for each research question. The null hypotheses are as follows:

$H_0$1. There is not a statistically significant difference based on school location type as measured by the difference scores of the six factors of school culture.

$H_0$2. There is not a statistically significant difference between school levels as measured by the difference scores of the six factors of school culture.

Location Type

The first null hypothesis looked at whether there was a statistically significant difference based on school location type as measured by the difference scores of the six factors of school culture. A one-way ANOVA was used in each of the six areas of school culture to determine if a difference exists. According to Gravetter and Wallnau (2014), a one-way ANOVA is an appropriate inferential test since it assesses differences across levels of one independent variable (i.e., principal location type) on the dependent variables (i.e., composite scores for the six factors of the SCS).

The assumptions of the one-way ANOVA were tested to ensure validity of the inferential findings. There were no outliers within the dependent variable scores. This was determined as no data points were more than 1.5 standard deviations away from the edges of the box plots for any

of the one-way ANOVA tests conducted for the null hypothesis. The Shapiro-Wilk's test was used to show that the dependent variable scores were normally distributed, with $p > .05$, thus the assumption of normality was met for all of the one-way ANOVA tests associated with this one-way ANOVA. The Shapiro-Wilk test is a normality test in SPSS with good power (Yap & Sim, 2011). The assumption of homogeneity of variance was not violated for any of these inferential tests. A non-significant Levene's test showed that the significance values were greater than .05 for all tests connected to this null hypothesis. Levene's test is a robust test for checking the equality of variances (Gastwirth et al., 2009). Since all of the assumptions for the one-way ANOVA tests that follow were met, the rest of this section presents the inferential findings for all six school culture factors based on location type.

There was no significant difference for the collaborative leadership composite score based on location type among urban principals ($M = 3.44$, $SD = .83$), suburban principals ($M = 3.74$, $SD = .58$), or rural principals ($M = 3.69$, $SD = .75$). This was determined by a non-significant one-way ANOVA, $F(2, 101) = 1.82$, $p = .168$. With a non-significant finding, there was no need to do a post hoc test. This null hypothesis was retained and any difference should be attributed to chance.

There was no significant difference for the teacher collaboration composite score based on location type among urban principals ($M = 3.16$, $SD = .69$), suburban principals ($M = 3.17$, $SD = .57$), or rural principals ($M = 3.25$, $SD = .78$). This was determined by a non-significant one-way ANOVA, $F(2, 101) = .162$, $p = .851$. There was no need to do a post hoc test. This null hypothesis was retained and any difference should be attributed to chance.

There was no significant difference for the professional development composite score based on location type among urban principals ($M = 3.79$, $SD = .57$), suburban principals ($M =$

3.74, *SD* = .48), or rural principals (*M* = 3.81, *SD* = .49). This was determined by a non-significant one-way ANOVA, *F*(2, 101) = .139, *p* = .870. There was no need to do a post hoc test. This null hypothesis was retained and any difference should be attributed to chance.

There was no significant difference for the unity of purpose composite score based on location type among urban principals (*M* = 3.51, *SD* = .83), suburban principals (*M* = 3.76, *SD* = .62), or rural principals (*M* = 3.70, *SD* = .71). This was determined by a non-significant one-way ANOVA, *F*(2, 101) = 1.13, *p* = .328. There was no need to do a post hoc test. This null hypothesis was retained and any difference should be attributed to chance.

There was no significant difference for the collegial support composite based on location type among urban principals (*M* = 3.86, *SD* = .66), suburban principals (*M* = 3.97, *SD* = .64), or rural principals (*M* = 4.03, *SD* = .55). This was determined by a non-significant one-way ANOVA, *F*(2, 101) = .740, *p* = .480. There was no need to do a post hoc test. This null hypothesis was retained and any difference should be attributed to chance.

There was no significant difference for the learning partnership composite score based on location type among urban principals (*M* = 3.15, *SD* = .72), suburban principals (*M* = 3.27, *SD*=.64), or rural principals (*M* = 3.29, *SD*=.75). This was determined by a non-significant one-way ANOVA, *F*(2, 101) = .439, *p* = .646. There was no need to do a post hoc test. This null hypothesis was retained and any difference should be attributed to chance.

School Level

The second null hypothesis looked at whether there was a statistically significant difference between elementary participants and secondary participants as measured by the difference scores of the six factors of school culture. An independent sample *t*-test was used to determine if a difference existed among any of the six factors of school culture based on the

independent variable of school level. An independent sample *t*-test is an appropriate inferential test since it evaluates the differences between two populations.

The assumptions of the independent samples *t*-test were tested to ensure the reliability of the findings. There were not any violations except for the unity of purpose test. The homogeneity of variance assumption was not met which resulted in reducing the degrees of freedom to accommodate for the violation (Gravetter & Wallnau, 2014). A significant Levene's test of equality of variances showed that the significance value for unity of purpose was less than .05.

For collaborative leadership there was no significant difference between elementary participants (M = 3.70, SD = .68) and secondary participants (M = 3.60, SD = .75). This was determined by an independent sample *t*-test, $t(102) = .46$, p = .647. This significance value was greater than the alpha level of .05 so the null hypothesis was retained. Any difference in the means should be attributed to chance.

For teacher collaboration there was no significant difference between elementary participants (M = 3.26, SD = .54) and secondary participants (M = 3.18, SD = .69). This was determined by an independent sample *t*-test, $t(102) = .39$, p = .701. This significance value was greater than the alpha level of .05 so the null hypothesis was retained. Any difference in the means should be attributed to chance.

For professional development there was no significant difference between elementary participants (M = 3.71, SD = .31) and secondary participants (M = 3.79, SD = .54). This was determined by an independent sample *t*-test, $t(102) = .53$, p = .600. This significance value was greater than the alpha level of .05 so the null hypothesis was retained. Any difference in the means should be attributed to chance.

For unity of purpose, there was a significant difference between elementary participants (M = 3.93, SD = .43) and secondary participants (M = 3.60, SD = .76). This was determined by an independent sample t-test, $t(24.43)=2.32$, p = .029. This significance value was less than the alpha level of .05 so the null hypothesis was rejected. The composite score for unity of purpose was significantly higher for elementary participants than for secondary participants.

For collegial support, there was no significant difference between elementary participants (M = 4.23, SD = .43) and secondary participants (M = 3.91, SD = .64). This was determined by an independent sample t-test, $t(102) =1.78$, p =.079. This significance value was greater than the alpha level of .05 so the null hypothesis was retained. Any difference in the means should be attributed to chance.

For learning partnership, there was no significant difference between elementary participants (M = 3.44, SD = .72) and secondary participants (M = 3.20, SD = .70). This was determined by an independent sample t-test, $t(102) =.1.16$, p = .248. This significance value was greater than the alpha level of .05 so the null hypothesis was retained. Any difference in the means should be attributed to chance.

Summary

Chapter 4 examined the descriptive and inferential statistics from the SCS that was administered in 2021 to schools that participated in IPLI. There were nine schools that participated in the study composed of 104 participants. There were 97 (93.3%) teacher respondents and 7 (6.7%) principal respondents. There were 39 (37.5%) from urban schools, 34 (32.7%) from suburban schools, and 31 (29.8%) from rural schools. For school level, 13 (12.5%) were elementary, and 91 (87.5%) were secondary.

Descriptive statistics were explored to identify patterns within the current perceptions of school culture factors within schools in which the building principal had completed IPLI. In order to identify potential patterns within the descriptive data, the data were filtered data based on the different levels of the independent variables, such as location type and school level. Questions from the SCS were organized into six areas of school culture and data were compared to the whole sample. Inferential statistics were used to test the null hypotheses. The first null hypothesis stated that there was not a statistically significant difference based on school location type as measured by the difference scores of the six factors of school culture. The first null hypothesis was not found to be statistically significant for any of the areas of school culture and the null hypothesis was retained. The second null hypothesis stated that there was not a statistically significant difference between school levels as measured by the difference scores of the six factors of school culture. The findings of this null hypothesis were found to be statistically significant in the area of unity of purpose. The composite score for unity of purpose was significantly higher for elementary participants than for secondary participants. Therefore, the null was rejected. The assumptions of the one-way ANOVA and independent sample *t*-test were tested to ensure validity of the inferential findings.

CHAPTER 5

SUMMARY OF FINDINGS, IMPLICATIONS, AND RECOMMENDATIONS FOR FUTURE RESEARCH

Chapter 5 presents the findings of my research and considerations for further research. This chapter consists of four sections, including summary of findings, implications, further research, and a summary. The summary of findings restates the purpose of my study and major findings. The implications section attempts to make meaning of the findings and identifies recommendations based on my findings. The next section includes my recommendations for potential future research. Last, I will conclude with a short summary.

The purpose of this quantitative study was to investigate the impact of IPLI on principal effectiveness as it relates to school culture. Effective school principals are key to successful schools (Marzano et al., 2005) and school culture is understood as being central to school improvement (Barth, 2002). Principals have professional development needs, and IPLI is a two-year professional development program designed to increase the leadership capacity of principals and the learning capacity of their schools. My study focused on schools whose principals completed IPLI in one of the first three cohorts and who remained as principal in the same school they were at when they completed the program. A one-way ANOVA and independent samples *t*-test were used to answer the following research questions:

1. What are the current school culture levels of schools with a principal who completed

IPLI and remains principal in their school as scored on the school culture survey?

2. Is there a statistically significant difference based on school location type as measured by the difference scores of the six factors of school culture?
3. Is there a statistically significant difference between-school levels as measured by the difference scores of the six factors of school culture?

Summary of Findings

I obtained the names of principal participants in the IPLI program from the first three cohorts as well as historical school directory information from the IDOE to identify which principals were still working as principal in the same school as they did when they completed IPLI. An email was sent to all eligible principals inviting them and their teachers to participate the SCS using the Qualtrics survey platform. The survey can be used to measure the amount of collaboration within the school setting (Gruenert & Whitaker, 2015) and consists of 35 statements organized in six areas of school culture. Respondents were asked to respond to the school culture statements by indicating a specific level of agreement or disagreement with each statement. The survey also collected demographic information including school location type, principal years of experience, and school level. After closing the survey window, SPSS was used to analyze the statistical data. There were nine schools that participated in the survey consisting of 97 (93.3%) teacher respondents and 7 (6.7%) principal respondents. There were 39 (37.5%) from urban schools, 34 (32.7%) from suburban schools, and 31 (29.8%) from rural schools. For school level, 13 (12.5%) were elementary and 91 (87.5%) were secondary.

Descriptive statistics were analyzed to summarize and describe the school culture composite scores of IPLI principals and their schools. The six areas of school culture were analyzed based on school location type including urban, suburban, and rural to ascertain if

location type was a factor for how participants responded to school culture statements. There were some differences, but they were minor.

Inferential data were then used to analyze the null hypotheses. The first null hypothesis looked at whether there was a statistically significant difference based on location type as measured by the difference scores of the six factors of school culture. This null was retained. There was not a statistically significant difference based on location type for any of the areas of school culture. The second null hypothesis looked at whether there was a statistically significant difference between elementary and secondary principals as measured by the difference scores of the six factors of school culture. This null was rejected in the area of unity of purpose. A statistically significant difference was found between elementary and secondary participants with the elementary respondents scoring significantly higher than the secondary participants.

Implications

As a former principal and graduate of IPLI and having worked in schools of all levels, I bring a special perspective to the topic being discussed. IPLI benefited me as a principal in several ways and is one of the reasons I enrolled in the Ph.D. program. I completed IPLI in Cohort 3 and, like many of the principals that I completed the program with, I too have transitioned to a different role in education. As I reflect on the findings and non-findings of my study, as well as the benefits of the program from my personal experience, I am able to offer the following observations and recommendations.

My first observation was how noticeable principal turnover has been in the first three cohorts of IPLI. One of the protocols of my study was going through the IDOE school directory to determine which IPLI principals from Cohorts 1, 2, and 3 were still serving as principal in the same school that they were in when they completed the program. Many of the schools within the

aforementioned cohorts have been affected by principal attrition. For example, IPLI Cohort 1 had 56 principals graduate from the program, yet only 18 were still in place as principal at the time that I reviewed the IDOE school directory. Cohort 2's retention was not much better. Of the 56 principals that graduated from the program, only 22 were still acting as principal in their original school and were eligible to participate in the study. In IPLI Cohort 3, there were 62 total graduates, but only 25 principals remained in their original position. These high rates of mobility greatly reduced the pool of possible study participants for my study. Due to this high mobility, I recommend that school districts invest in principal leadership programs such as IPLI as a strategy to support, train, and retain principals within the principal's first few years. As addressed in Chapter 2, principal turnover happens for various reason and is detrimental to improved student achievement results. There is not a single reason for principal turnover, yet turnover is disruptive both in terms of finances and student achievement. Moreover, Chapter 2 discussed how providing principals with support and training can be a means to retain principals so that they can have the time necessary to improve student outcomes. Time is needed to shape the six areas of school culture. A practical way to implement my recommendation is for school districts to provide all principals in the district with a commitment to a formal professional development training plan upon the initial hiring. That plan could include a commitment to support principals within their first three years by providing financial support, time, encouragement, and other resources to ensure that their principals have access to a formal training program composed of leadership responsibilities and practices that have been identified by Marzano et al. (2005) and summarized in the literature review. A framework like the school leader paradigm (School Leader Collaborative, 2018) or professional standards like PSEL and NELP can be used to support and guide the important work principals do to improve student

learning. Because it is not practical to have all administrators within a school district participate in a formal leadership program at the same time, a special rotation schedule could be established to ensure equity, as well as ensure that proper budgeting and organizational planning can happen. Offering such a commitment may act as an incentive to attract and retain principals.

By providing formal professional training plans to principals, some districts may experience principal turnover. Some turnover could be an indirect manifestation of influence of how professional development may encourage career advancement. Effective principals may use professional development as a catalyst to advance their careers. Principals who receive training such as IPLI can use the growth and development that they experienced from the program to serve the district in a different capacity. Their past professional development experiences can lead them to make a greater impact in a central office position that interacts with more principals and schools thereby having a greater leadership influence.

Low participation rates could also misrepresent the type of culture that characterizes a school depending on which teachers participated in the survey. What I mean by this is a particular group of teachers, who represent a subculture within the school, could have been the primary participants of the school that completed the survey. Additionally, teacher turnover was not accounted for in the study. By nature, subcultures are not good or bad (Gruenert & Whitaker, 2015). However, presence of subcultures could have influenced the results of this study depending on who participated. If ineffective or toxic teachers participated in the survey, then the results in the six areas of school culture would represent the respondents in that subculture. If just the most effective and committed teachers took the survey, then the outcome in the six areas of school culture would be different. As noted in the summary of findings, fewer than 100 teachers representing nine schools participated in the study.

My second observation relates to the finding in Chapter 4 of a statistically significant difference between elementary and secondary teachers in the school culture area of unity of purpose. Having taught in an elementary school and worked as an administrator at the secondary level, the finding is not surprising. As defined in Chapter 2, unity of purpose refers to how teachers work toward a common school mission. Additionally, the literature review supported how principals influence student learning through vision, mission, and goals (Hallinger & Heck, 1998) which aligned with the findings of the school culture factor of unity of purpose. Generally, it has been my experience that elementary staff members have high levels of collaboration and unity when working to achieve the school mission. The presence and dynamics of grade-level teams, staff teamwork, and teacher collaboration of the elementary seem to be stronger than the secondary level, which can sometimes be more departmentalized and focused on specific content learning, and thus less connected the school's main mission. Secondary schools offer a variety of programs and content areas that are geared more toward specific college and career pathways. Although elementary schools may offer some forms of the same college and career pathways, they are usually less defined and are secondary to broad curricular goals in reading, writing, and math. Similarly, secondary principals oftentimes are confronted with a more complex organizational structure, which can lead to fragmentation. Collective teacher efficacy was identified in the literature review as a method principals use to impact student learning. I suspect that elementary schools exhibit collective teacher efficacy through school culture behaviors associated with unity of purpose. As such, the need to continue to use end-of-program exit data from participants' surveys can help the IPLI leadership team tailor program activities to serve principals based on school level. Using the findings from the study could result in IPLI changing how the regional-focused cohorts are structured. Perhaps groups could be formed by school level

instead of being mixed by school level so that sharing and mentoring are more applicable to the participants.

The data from this study did not result in any findings of a difference in school culture based on school location type as measured by the SCS. More research is needed to understand the needs of principals and schools based on locale type. As cited in Chapter 2, principal turnover can be affected by student socioeconomic status and poverty. Learning how a principal training program shapes the school culture of various school location types may lead to better student outcomes.

More potential rationale for the findings of no difference in school culture data based on location type could be the participants' depth of knowledge and understanding of school culture. As indicated in Chapter 1 in the definition of terms section, *culture* refers "to the extent to which the leader fosters shared beliefs and a sense of community and cooperation among staff" (Marzano et al., 2005, p. 48). There are differences between culture and climate (Gruenert & Whitaker, 2015), and IPLI principals and teachers of the IPLI program learned about those differences. Even though the principals have remained as principals in the same schools where they were when they completed IPLI, the schools have more than likely experienced teacher turnover. A lack of understanding of the key concepts behind culture could lead to inconsistent responses from the survey participants, including new teachers.

Another recommendation that I have from this research project is for schools to complete the SCS and subsequent school culture activities. Gruenert and Whitaker (2015) described the School Culture Typology activity, which is essentially an exercise to analyze the survey data, to understand strengths and weaknesses of the school's culture and possible action steps for addressing the weaknesses and steps for celebrating the strengths. Knowing one's school culture

is crucial to school improvement (Peterson & Deal, 2016). When I completed IPLI, I took my staff through the activity and found the process to be very beneficial. The very fact that the activity instigated dialogue and discussion about the data promoted several factors of a collaborative school culture identified by Gruenert and Whitaker (2015), especially the areas of collaborative leadership, teacher collaboration, and unity of purpose. A majority of respondents in the study (72.1%) demonstrated agreement in some form with the statement, "Leaders in our school facilitate teachers working together." The School Culture Typology activity can further strengthen a collaborative school culture.

Recommendations for Further Research

The study was conducted during a very challenging time in society with the pandemic. This was noted as a limitation in Chapter 1. The study was limited by the Covid-19 pandemic in different ways, but most notably by the study's low participation rates. Respondent participation was limited as some school leaders reported that they did not feel they could ask their teachers to take the time needed to complete the survey. Others indicated that their districts were concerned with the potential negative results of a survey measuring school culture levels during such a demanding time as schools struggled with the effects of the pandemic. More research is needed to expand the sample of study participants to better understand the impact IPLI is having on schools, principals, and students.

More research is also needed on other IPLI cohorts. IPLI continues to evolve and improve through changes to the program. With each cohort, there are modifications as the program progresses year-to-year using evaluative feedback from participants and the program's leadership. The nature of any type of new initiative or program is continuous improvement and progress, and IPLI is no exception. Since the start of the IPLI program, the leadership team has

made decisions and changes to enhance program effectiveness. This study can drive future research that may be useable to the IPLI leadership as future decisions, refinements, and changes are considered.

Further research should be done on similar programs in other states. This study focused on the first three cohorts of IPLI, which is specific to Indiana. IPLI was started legislatively to improve principal leadership and school improvement in Indiana. Research from this study and from future studies can inform other states' principal associations of the importance of leadership training and support. Illinois, for example, is using the School Leader Paradigm, which was described in Chapter 2, to describe and guide the important leadership work of principals. Investigating how other states are addressing the needs of school principals can ensure effective schools.

Another area of further research could be on the impact of IPLI on the specific needs of elementary principals compared to secondary principals, when considering the program's conceptual framework and model. As indicated in this study, elementary principals scored significantly higher than secondary principals in the area of unity of purpose. Why did they score higher, and what could have led to the strong findings? Which aspects of the program's model contributed to the findings? Action research is a substantial part of the IPLI model and could be investigated to determine if certain topics resulted in more leadership or instructional capacity growth than others. Focus cohorts are led by a mentor and act as learning communities for the participating principals. They could be investigated to understand their role in the principals' growth and to support and train the mentors, who then support the principals. Further exploration of these specific features or program activities and others, which might have influenced the results of the study, could strengthen the program and better equip principals.

Next, more research is needed on IPLI principal retention and attrition. This study was limited by principal mobility as documented in Chapter 1. Many principals are no longer serving in their original school as principal. By studying principal location types after IPLI graduation, a researcher could add to the developing research of the impact that IPLI participation nay be having on principal retention. As indicated in the study, there was not a statistically significant difference based on location type as measured by the difference scores of the six factors of school culture. However, the impact of IPLI on principal retention is not known. In what ways, if at all, does IPLI positively affect or reduce principal turnover in Indiana compared to national trends? Knowing more about how the program impacts principal retention could be an important next step in the research on IPLI.

Finally, further research is needed on the impact of IPLI on student achievement. The program model is designed to focus on the principal's leadership development in Year 1 followed by the second year, which concentrates on the school's capacity to grow. The impact of school leadership on student achievement is well documented so being able to measure how the program is ultimately affecting student achievement in the state of Indiana is the highest objective. A barrier to this important step is the inconsistent testing program in the state of Indiana. In addition to the interruptions of the pandemic in 2020, changes in learning standards, statewide testing, and shifting accountability systems in Indiana have occurred making data difficult to compare longitudinally. Research on the impact of IPLI using student achievement is needed to help the program improve thus benefiting the students of Indiana.

Summary

Chapter 5 discussed the findings of my research and considerations for further research. The final chapter consisted of four sections including summary of findings, implications, further

research, and a summary. The summary of findings restated the purpose of my study and discussed major findings. The implications section attempted to make meaning of the findings and identified several recommendations based on my findings. Before this summary, the final section provided my recommendations for potential future research.

Effective school leadership is a matter of great importance to schools and communities. Strong educational leadership is needed to influence and support successful schools that lead to improved student outcomes. School leadership, principals in particular, play a significant role in the success of students and schools. Principals act as transformational leaders to exercise their influence and leadership. Principals are positioned to shape school culture using leadership practices associated with student achievement. Unfortunately, the principalship is difficult and demanding. However, the position can be rewarding and influential. Principals are positioned to influence and positively shape various factors of a school. To maximize a principal's role, skills, and abilities, principals need leadership training and support. As stated in the literature review, principal turnover can be a result of negative effects and is disruptive to teachers, students, and schools. Providing a formal professional development program like IPLI using strategies, frameworks, and standards associated with increased student achievement can alleviate some of the negative effects of principal turnover while equipping principals with the leadership skills and training needed to develop continuously as leaders and make a difference in the schools and communities that they serve.

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APPENDIX A: SCHOOL CULTURE SURVEY

School Culture Survey

Indicate the degree to which each statement describes conditions in your school.

Please use the following scale:

1=Strongly Disagree 2=Disagree 3=Undecided 4=Agree 5=Strongly Agree

		Strongly Disagree	*Disagree*	*Undecided*	*Agree*	*Strongly Agree*
1.	Teachers utilize professional networks to obtain information and resources for classroom instruction.	①	②	③	④	⑤
2.	Leaders value teachers' ideas.	①	②	③	④	⑤
3.	Teachers have opportunities for dialogue and planning across grades and subjects.	①	②	③	④	⑤
4.	Teachers trust each other.	①	②	③	④	⑤
5.	Teachers support the mission of the school.	①	②	③	④	⑤
6.	Teachers and parents have common expectations for student performance.	①	②	③	④	⑤
7.	Leaders in this school trust the professional judgments of teachers.	①	②	③	④	⑤
8.	Teachers spend considerable time planning together.	①	②	③	④	⑤
9.	Teachers regularly seek ideas from seminars, colleagues, and conferences.	①	②	③	④	⑤
10.	Teachers are willing to help out whenever there is a problem.	①	②	③	④	⑤
11.	Leaders take time to praise teachers that perform well.	①	②	③	④	⑤
12.	The school mission provides a clear sense of direction for teachers.	①	②	③	④	⑤
13.	Parents trust teachers' professional judgments.	①	②	③	④	⑤
14.	Teachers are involved in the decision-making process.	①	②	③	④	⑤
15.	Teachers take time to observe each other teaching.	①	②	③	④	⑤
16.	Professional development is valued by the faculty.	①	②	③	④	⑤
17.	Teachers' ideas are valued by other teachers.	①	②	③	④	⑤
18.	Leaders in our school facilitate teachers working together.	①	②	③	④	⑤
19.	Teachers understand the mission of the school.	①	②	③	④	⑤

1=Strongly Disagree 2=Disagree 3=Undecided 4=Agree 5=Strongly Agree		*Strongly Disagree*	*Disagree*	*Undecided*	*Agree*	*Strongly Agree*
20.	Teachers are kept informed on current issues in the school.	①	②	③	④	⑤
21.	Teachers and parents communicate frequently about student performance.	①	②	③	④	⑤
22.	My involvement in policy or decision making is taken seriously.	①	②	③	④	⑤
23.	Teachers are generally aware of what other teachers are teaching.	①	②	③	④	⑤
24.	Teachers maintain a current knowledge base about the learning process.	①	②	③	④	⑤
25.	Teachers work cooperatively in groups.	①	②	③	④	⑤
26.	Teachers are rewarded for experimenting with new ideas and techniques.	①	②	③	④	⑤
27.	The school mission statement reflects the values of the community.	①	②	③	④	⑤
28.	Leaders support risk-taking and innovation in teaching.	①	②	③	④	⑤
29.	Teachers work together to develop and evaluate programs and projects.	①	②	③	④	⑤
30.	The faculty values school improvement.	①	②	③	④	⑤
31.	Teaching performance reflects the mission of the school.	①	②	③	④	⑤
32.	Administrators protect instruction and planning time.	①	②	③	④	⑤
33.	Teaching practice disagreements are voiced openly and discussed.	①	②	③	④	⑤
34.	Teachers are encouraged to share ideas.	①	②	③	④	⑤
35.	Students generally accept responsibility for their schooling, for example they engage mentally in class and complete homework assignments.	①	②	③	④	⑤

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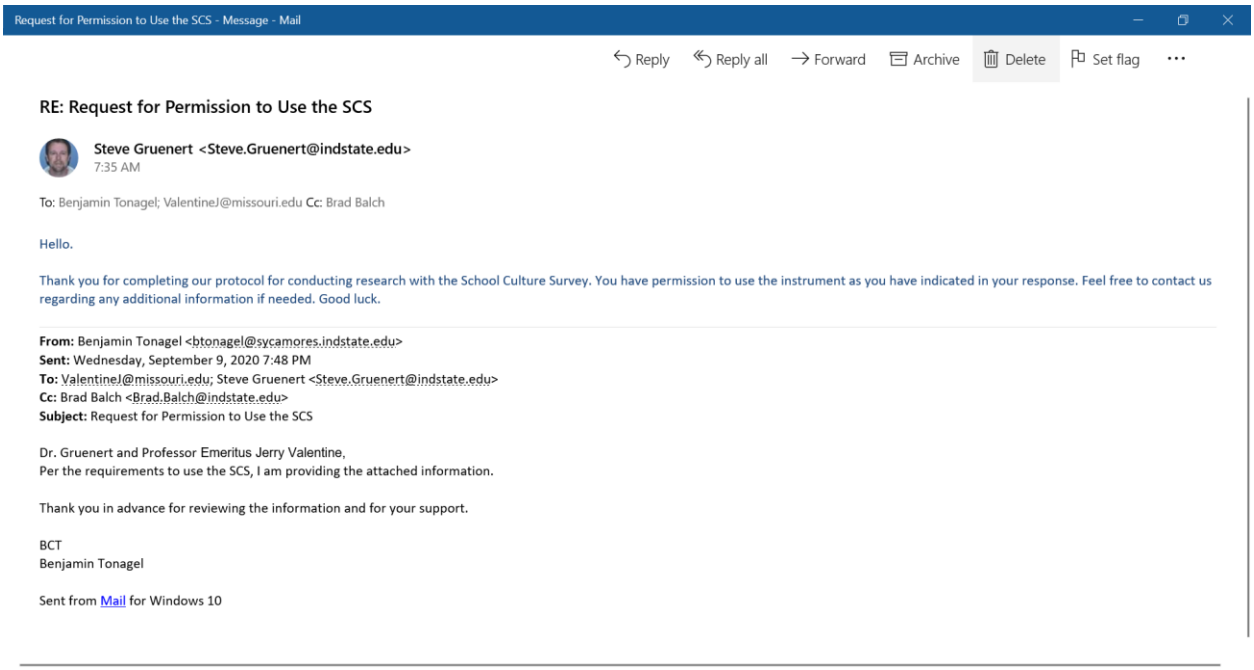
APPENDIX B: PERMISSION TO USE SCHOOL CULTURE SURVEY



Request for Permission to Use the SCS - Message - Mail

Reply | Reply all | Forward | Archive | Delete | Set flag | ...

RE: Request for Permission to Use the SCS

Steve Gruenert <Steve.Gruenert@indstate.edu>
7:35 AM

To: Benjamin Tonagel; ValentineJ@missouri.edu Cc: Brad Balch

Hello.

Thank you for completing our protocol for conducting research with the School Culture Survey. You have permission to use the instrument as you have indicated in your response. Feel free to contact us regarding any additional information if needed. Good luck.

From: Benjamin Tonagel <btonagel@sycamores.indstate.edu>
Sent: Wednesday, September 9, 2020 7:48 PM
To: ValentineJ@missouri.edu; Steve Gruenert <Steve.Gruenert@indstate.edu>
Cc: Brad Balch <Brad.Balch@indstate.edu>
Subject: Request for Permission to Use the SCS

Dr. Gruenert and Professor Emeritus Jerry Valentine,
Per the requirements to use the SCS, I am providing the attached information.

Thank you in advance for reviewing the information and for your support.

BCT
Benjamin Tonagel

Sent from Mail for Windows 10

APPENDIX C: SCHOOL CULTURE SURVEY WITH DEMOGRAPHIC QUESTIONS

School Culture Survey

Indicate the degree to which each statement describes conditions in your school.

Please use the following scale:

1=Strongly Disagree 2=Disagree 3=Undecided 4=Agree 5=Strongly Agree

		Strongly Disagree	*Disagree*	*Undecided*	*Agree*	*Strongly Agree*
1.	Teachers utilize professional networks to obtain information and resources for classroom instruction.	①	②	③	④	⑤
2.	Leaders value teachers' ideas.	①	②	③	④	⑤
3.	Teachers have opportunities for dialogue and planning across grades and subjects.	①	②	③	④	⑤
4.	Teachers trust each other.	①	②	③	④	⑤
5.	Teachers support the mission of the school.	①	②	③	④	⑤
6.	Teachers and parents have common expectations for student performance.	①	②	③	④	⑤
7.	Leaders in this school trust the professional judgments of teachers.	①	②	③	④	⑤
8.	Teachers spend considerable time planning together.	①	②	③	④	⑤
9.	Teachers regularly seek ideas from seminars, colleagues, and conferences.	①	②	③	④	⑤
10.	Teachers are willing to help out whenever there is a problem.	①	②	③	④	⑤
11.	Leaders take time to praise teachers that perform well.	①	②	③	④	⑤
12.	The school mission provides a clear sense of direction for teachers.	①	②	③	④	⑤
13.	Parents trust teachers' professional judgments.	①	②	③	④	⑤
14.	Teachers are involved in the decision-making process.	①	②	③	④	⑤
15.	Teachers take time to observe each other teaching.	①	②	③	④	⑤
16.	Professional development is valued by the faculty.	①	②	③	④	⑤
17.	Teachers' ideas are valued by other teachers.	①	②	③	④	⑤
18.	Leaders in our school facilitate teachers working together.	①	②	③	④	⑤

19.	Teachers understand the mission of the school.	①	②	③	④	⑤
20.	Teachers are kept informed on current issues in the school.	①	②	③	④	⑤
21.	Teachers and parents communicate frequently about student performance.	①	②	③	④	⑤
22.	My involvement in policy or decision making is taken seriously.	①	②	③	④	⑤
23.	Teachers are generally aware of what other teachers are teaching.	①	②	③	④	⑤
24.	Teachers maintain a current knowledge base about the learning process.	①	②	③	④	⑤
25.	Teachers work cooperatively in groups.	①	②	③	④	⑤
26.	Teachers are rewarded for experimenting with new ideas and techniques.	①	②	③	④	⑤
27.	The school mission statement reflects the values of the community.	①	②	③	④	⑤
28.	Leaders support risk-taking and innovation in teaching.	①	②	③	④	⑤
29.	Teachers work together to develop and evaluate programs and projects.	①	②	③	④	⑤
30.	The faculty values school improvement.	①	②	③	④	⑤
31.	Teaching performance reflects the mission of the school.	①	②	③	④	⑤
32.	Administrators protect instruction and planning time.	①	②	③	④	⑤
33.	Teaching practice disagreements are voiced openly and discussed.	①	②	③	④	⑤
34.	Teachers are encouraged to share ideas.	①	②	③	④	⑤
35.	Students generally accept responsibility for their schooling, for example they engage mentally in class and complete homework assignments.	①	②	③	④	⑤

Teacher will select their school from the list (teachers only).

Principals will indicate the school's location type.

- Urban
- Suburban
- Rural

Principals will indicate years of experience as a principal they have in their current school.

- 1-5 years
- 6-10 years
- 11+ years

Principals will indicate which level of school.

- Elementary (grades K-5)
- Secondary (grades 6-10)

APPENDIX D: THE 21 RESPONSIBILITIES OF SCHOOL LEADERSHIP AND THE SCHOOL CULTURE SURVEY

Responsibility	Definition	SCS Item
Affirmation	Recognizes and celebrates accomplishments and acknowledges defeats.	11, 26
Change Agent	Is willing to and actively challenges the status quo.	28, 31, 33
Communication	Establishes strong lines of communication with teachers and among stakeholders.	4, 8, 20, 23, 33
Contingent rewards	Recognizes and rewards individual accomplishments.	11
Culture	Fosters shared beliefs and a sense of community and cooperation.	1, 2, 4, 5, 6, 7, 8, 9, 10, 12, 14, 19, 25, 27, 29, 34, 35
Curriculum, instruction, assessment	Is directly involved in the design and implementation of curriculum, instruction, and assessment practices.	3, 8, 25, 29, 34
Discipline	Protects teachers from issues and influences that would detract from their teaching time or focus.	8
Flexibility	Adapts his or her leadership behavior to the needs of the current situation and is comfortable with dissent.	20, 26, 27
Focus	Establishes clear goals and keeps those goals in the forefront of the school's attention.	5, 6, 12, 19, 31, 32
Ideals/beliefs	Communicates and operates from strong ideals and beliefs about schooling.	4, 5, 7, 13, 19
Input	Involves teachers in the design and implementation of important decisions and policies.	2, 7, 14, 22, 29, 34
Intellectual stimulation	Ensures that faculty and staff are aware of the current theories and practices and makes the discussion of these a regular aspect of the school's culture.	16, 20, 24, 26, 28

Knowledge of curriculum, instruction, and assessment	Is knowledgeable about current curriculum, instruction, and assessment practices.	6, 15, 20, 31
Monitors/evaluates	Monitors the effectiveness of school practices and their impact on student learning.	8, 10, 30, 32, 33, 35
Optimizer	Inspires and leads new and challenging innovations.	16, 17, 26
Order	Establishes a set of standard operating principles and procedures.	8, 25, 32
Outreach	Is an advocate or spokesperson for the school to all stakeholders.	5, 13, 21, 27, 35
Relationship	Demonstrates an awareness of the personal aspects of teachers and staff.	4, 18
Resources	Provides teachers with the material and professional development necessary for the successful execution of their jobs.	1, 3, 9, 14, 16, 20, 24
Situational awareness	Is aware of the details and undercurrents in the running of the school and uses this information to address current and potential problems.	12, 35
Visibility	Has quality contact and interactions with teachers and students.	6, 10, 13

APPENDIX E: REQUEST FOR PRINCIPALS' INITIAL SCHOOL CULTURE SURVEY RESULTS

Dear Dr. Kelly Andrews and Dr. Linda Marrs-Morford,

I am conducting a research study on the impact of IPLI participation in IPLI. The purpose of this quantitative research study will be to quantify the impact of principal participation in IPLI using the School Culture Survey (SCS). The study seeks to understand how the program has helped principal leadership as it relates to school culture. Principals in the first three cohorts have been chosen for the study. Only the principals who are still in the same school they were in when they completed IPLI will be invited to participate. The attached list of principals shows who has given consent to participate. The purpose of this letter is to formally request the principals' initial SCS data to answer the first research question (i.e., What are the current culture levels of IPLI participants as scored on the School Culture Survey?). Thank you in advance for your support of the study. Once the study is completed, I would be happy to share the results with you if you desire. In the meantime, if you have any questions please contact:

Benjamin Tonagel (Researcher)
Assistant Superintendent of Elementary Education
LaPorte Community School Corporation
1000 Harrison Street
LaPorte, IN 46350
219-362-7056

or

Bradley V. Balch, Ph.D. (Dissertation Chair)
Professor of Educational Leadership & Dean Emeritus
Indiana State University

APPENDIX F: EMAIL SURVEY SOLICITATION PRINCIPALS: INFORMED CONSENT

Dear Indiana IPLI Principal,

You are being invited to participate in a research study. The purpose of this survey is to determine the impact that the Indiana Principal Leadership Institute (IPLI) has had on principal leadership and management capacity as it relates to school culture. The way you can help me determine the impact is by answering the questions in the school culture survey, which should take you about 15 minutes to complete. As was done when you participated in IPLI, we would like to invite staff participation. Please forward the attached teacher invitation inviting them to participate in the study for your school. If you would be willing to participate in this study and provide access to your initial school culture survey results, please contact me at btonagel@sycamores.indstate.edu.

Some reasons you might want to participate in this research are to learn about the impact of IPLI on principal leadership and to reflect on your IPLI experience. A reason you might not want to participate in this survey is the brief time it will take you to answer the questions.

The choice to participate or not is yours; participation is strictly voluntary. You also can choose to answer or not answer any question you like, and to exit the survey if you wish to stop participating. There is no penalty or loss of benefits for not participating. The risk of your involvement is not greater than minimal risk. Additionally, the probability of harm or discomfort is not greater than those ordinarily encountered in daily life.

The survey asks questions about school culture. This is the same survey you and your staff completed during the IPLI program. You have been asked to participate in this research because you completed IPLI and you remain a practicing principal in Indiana.

The research will be shared with IPLI staff and design team. Although every effort will be made to protect your answers, compete anonymity cannot be guaranteed over the internet. Other potential risk of the study includes loss of school culture survey confidentially.

It is unlikely that you will benefit directly by participating in this study, but the research results may benefit educators, superintendents and school boards, the Indiana General Assembly, as well as Indiana taxpayers about the state's investment to support principals. If you would be willing to participate in this study, please contact me at btonagel@sycamores.indstate.edu.

Thank you for your time and consideration to participate in this study. If you have any questions, please contact:

Benjamin Tonagel (Researcher)
Assistant Superintendent of Elementary Education
LaPorte Community School Corporation
1000 Harrison Street
LaPorte, IN 46350
219-362-7056
btonagel@sycamores.indstate.edu

or

Bradley V. Balch, Ph.D. (Dissertation Chair)
Professor of Educational Leadership & Dean Emeritus
Indiana State University
brad.balch@indstate.edu

If you have any questions about your rights as a research subject or if you feel you have been placed at risk, you may contact the Indiana State University Institutional Review Board (IRB) by mail at Indiana State University, Office of Sponsored Programs, Terre Haute, IN 47809, by phone at (812) 237-3088 or by email at irb@indstate.edu.

APPENDIX G: EMAIL SURVEY SOLICITATION TEACHERS: INFORMED CONSENT

Dear Indiana Teacher,

You and your principal are being invited to participate in a research study. The purpose of this survey is to determine the impact that the Indiana Principal Leadership Institute (IPLI) has had on principal leadership and management capacity as it relates to school culture. The way you can help me determine the impact is by answering the questions in the school culture survey, which should take you about 15 minutes to complete. As was done when your principal participated in IPLI, the principal and the teachers are invited to participate.

Some reasons you might want to participate in this research are to learn about the impact of IPLI on principal leadership and school culture. A reason you might not want to participate in this survey is the brief time it will take you to answer the questions.

The choice to participate or not is yours; participation is strictly voluntary. You also can choose to answer or not answer any question you like, and to exit the survey if you wish to stop participating. Your principal will not be made aware of your participation. There is no penalty or loss of benefits for not participating. The risk of your involvement is not greater than minimal risk. Additionally, the probability of harm or discomfort is not greater than those ordinarily encountered in daily life.

The survey asks questions about school culture. This is the same survey your school completed during the IPLI program. You have been asked to participate in this research because your principal completed IPLI and remains a practicing principal in Indiana.

The research will be shared with IPLI staff and design team. Although every effort will be made to protect your answers, compete anonymity cannot be guaranteed over the internet. Other potential risk of the study includes loss of school culture survey confidentially.

It is unlikely that you will benefit directly by participating in this study, but the research results may benefit educators, superintendents and school boards, the Indiana General Assembly, as well as Indiana taxpayers about the state's investment to support principals.

Thank you for your time and consideration to participate in this study. If you have any questions, please contact:

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If you have any questions about your rights as a research subject or if you feel you have been placed at risk, you may contact the Indiana State University Institutional Review Board (IRB) by mail at Indiana State University, Office of Sponsored Programs, Terre Haute, IN 47809, by phone at (812) 237-3088 or by email at irb@indstate.edu.

APPENDIX H: PRINCIPALS & TEACHERS: SURVEY INFORMED CONSENT

Dear Indiana IPLI Principal and Indiana Teacher,

You are being invited to participate in a research study. The purpose of this survey is to determine the impact that IPLI has had on principal leadership and management capacity as it relates to school culture. The way you can help me determine the impact is by answering the questions in this survey, which should take you about 15 minutes to complete. As was done when you participated in IPLI, we would like to invite staff participation. Please forward the culture survey link inviting them to participate in the study for your school. Consent is required before starting the survey. Participation is entirely voluntary, and the principal will not be made aware of teacher participation.

Some reasons you might want to participate in this research are to learn about the impact of IPLI on principal leadership and to reflect on the IPLI experience. A reason you might not want to participate in this survey is the brief time it will take you to answer the questions.

The choice to participate or not is yours; participation is strictly voluntary. You also can choose to answer or not answer any question you like, and to exit the survey if you wish to stop participating. There is no penalty or loss of benefits for not participating. The risk of your involvement is not greater than minimal risk. Additionally, the probability of harm or discomfort is not greater than those ordinarily encountered in daily life.

The survey asks questions about school culture. This is the same survey you completed during the IPLI program. You have been asked to participate in this research because your school's principal completed IPLI and you remain a practicing principal in Indiana.

The research will be shared with IPLI staff and design team. Although every effort will be made to protect your answers, compete anonymity cannot be guaranteed over the internet. Other potential risk of the study includes loss of school culture survey confidentially.

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It is unlikely that you will benefit directly by participating in this study, but the research results may benefit educators, superintendents and school boards, the Indiana General Assembly, as well as Indiana taxpayers about the state's investment to support principals.

Thank you for your time and consideration to participate in this study. If you have any questions, please contact:

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Assistant Superintendent of Elementary Education
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If you have any questions about your rights as a research subject or if you feel you have been placed at risk, you may contact the Indiana State University Institutional Review Board (IRB) by mail at Indiana State University, Office of Sponsored Programs, Terre Haute, IN 47809, by phone at (812) 237-3088 or by email at irb@indstate.edu.

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