TEACHER PERCEPTIONS OF THE INFLUENCE OF PRINCIPAL INSTRUCTIONAL LEADERSHIP ON SCHOOL CULTURE: A CASE STUDY OF THE AMERICAN EMBASSY SCHOOL IN NEW DELHI, INDIA

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ABSTRACT

The purpose of this case study is to examine the influence of principal instructional leadership on school culture in the American Embassy School (AES) in New Delhi, India. Using mixed quantitative and qualitative methods, this case study addresses three key research questions.

Two existing survey instruments, the Principal Instructional Management Rating Scale developed by Philip Hallinger (1987) and the School Culture Survey developed by Steven Gruenert (1998), were both used as part of one electronic survey of teachers at AES. The response rate was a high 86% with a total of 132 teachers responding. Both scales proved to be highly reliable in this international context with a coefficient alpha of .97 for the Principal Instructional Management Rating Scale and .93 for the School Culture Survey. In addition, study methods included interviews, focus groups, and a document analysis to ensure triangulation. Data were from three divisions: the elementary school, the middle school, and the high school to analyze the research questions.

Among major results were the following: the elementary school has strong principal instructional leadership while the high school has weak principal instructional leadership. Results for the middle school were mixed. Teachers in the elementary school viewed their school as having a positive and collaborative school culture while the middle school teachers had mixed views and the high school teachers had the least positive views of their school culture.

Numerous and strong relationships were found between many instructional leadership factors and school culture factors suggesting the importance of principals using an instructional leadership approach. As instructional leaders, principals can create
a positive and collaborative school culture. By helping teachers collaborate, instilling collective leadership, and communicating a shared vision, principals can contribute to developing a positive and collaborative school culture. Another finding is that forging strong personal relationships with teachers contributes importantly to school culture.

This dissertation may inform thinking about how principal instructional leadership can contribute to improving student learning indirectly through a positive and collaborative school culture.
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CHAPTER 1

Introduction

Like surfers, leaders must ride the wave of change. If they move too far ahead, they will be crushed. If they fall behind, they will become irrelevant. Success requires artistry, skill, and the ability to see organizations as organic forms in which needs, roles, power, and symbols must be integrated to provide direction and shape behavior. . . They are architects, analysts, advocates, and profits who lead with soul. (Bolman & Deal, 2003, p. 433-434)

As Bolman and Deal (2003) attest, successful leaders require many complex skills. Schools, in particular, offer a challenging setting to study when it comes to effective leadership. Bolman and Deal (2003) state, “In many schools . . . goals are multiple and elusive, technology is underdeveloped, linkages between means and ends are poorly understood, and effectiveness is difficult to determine.” (p. 275) Many researchers define successful school principals as those who promote increased student achievement. (Hallinger & Heck, 1998; Marzano, Waters & McNultuy, 2005; Witziers, Bosker & Kruger, 2003; Zepeda, 2004)

While researchers may agree upon the definition of school success, there is broad disagreement about the linkage between principal leadership and student achievement. Marzano, Waters and McNulty (2005) argue that effective school principals can have a dramatic influence on the overall academic achievement of students. These researchers reached this conclusion after examining 69 studies using a meta-analysis technique. They offer 21 categories of effective leadership behaviors called responsibilities. These responsibilities are ways in which principals can promote increased student achievement.
Witziers, Bosker and Kruger (2003) examined studies from the same time frame as Marzano, Waters and McNulty and reached a very different conclusion. They reported that there is almost no direct relationship between principal leadership and student achievement after examining 37 studies conducted internationally.

Phillip Hallinger (2003) also analyzed studies during the same time period. He concludes:

The preponderance of evidence indicates that school principals contribute to school effectiveness in student achievement indirectly through actions they take to influence what happens in the school and in classrooms . . . but it is interesting to note the relatively few studies find a relationship between the principles hands on supervision of classroom instruction, teacher effectiveness, and student achievement. (p. 333)

Leithwood and Jantzi (1999) also conclude, “that principal leadership makes a disappointing contribution to student engagement.” (p. 697)

This case study investigates the indirect relationship between principal leadership and student achievement. In an effort to better understand the indirect relationship, this case study focuses on the relationship between principal instructional leadership and school culture. In 2005, Gruenert learned that a positive, collaborative school cultures increased student achievement.

Significance of the Study

Since the accountability movement began in 1980s, it has become evident that a principal needs to do more to improve student learning. In 1983, the Commission of
Excellence released a report titled A Nation at Risk, which warned that, “our society and its educational institutions seem to have lost sight of the basic purpose of schooling and of the high expectations and disciplined effort to attain them.” (p. 3) The key term, “high expectations” grew into standards-based movement. In 1994, Congress passed Goals 2000: The Educate America Act. The act required states to develop content and performance standards to define adequate yearly progress. In 2002, President Bush signed into law The No Child Left Behind Act.

The No Child Left Behind legislation mandated that schools in the United States will make continuous improvement towards improving academics state standards. “The standard for accountability has put tremendous stress on school system personnel, especially the principal, who now is held ultimately accountable for student achievement. Increased accountability has resulted in the principal assuming a greater degree of responsibility for student achievement than in the past.” (Zepeda, 2007, p. 6) As a result, school principals were being held more accountable for improved instruction in order for students to meet standards.

In 1996, the Interstate School Leaders Licensure Consortium developed standards for school leaders stressing the importance of principals being held more accountable for student learning. (Officers, 1996) The second standard demonstrated the importance of instructional leadership and school culture in promoting successful students.

Interstate School Leaders Licensure Consortium: Standards for School Leaders Standard 2

A school administrator is an educational leader who promotes the success of all students by advocating, nurturing, and sustaining a school culture and
instructional program conducive to student learning and staff professional growth.

(Officers, 1996)

Principals not only need to focus on the instructional program, but also need to understand the importance of school culture. School leadership creates the best conditions for learning (Fullan, 2007). All student learning occurs in the context of the school. Deal and Peterson (1999) state, “School cultures, in short, are key to school achievement and student learning.” (p.xii)

Collaborative school cultures should boost student achievement. (Angelides & Ainscow, 2000; Deal & Peterson, 1999a; Elbot & Fulton, 2008; Fullan, 2007; Glanz, 2006a; Gruenert, 2000) In Steve Gruenert’s (2005) study, he learned that collaborative cultures improve student achievement. He states, “According to the results from this study, collaborative cultures seem to be the best setting for student achievement, thus affirming the literature on collaborative school cultures.” (p. 50)

Gruenert (2005) clarified that school cultures directly impact student learning, however researchers have been unable to conclude that principal leadership has a direct impact upon student achievement. Since the early 1980s, researchers have been looking for links on how principal instructional leadership improved student learning. (Bossert, 1982; Bridges, 1982; Gruenert, 2005; Heck & Hallinger, 2005; Wellisch, 1978; Witziers, Bosker, & Kruger, 2003) Principals have a strong impact on creating a collaborative school culture, which in turn impacted student learning and success. (Fullan, 1998; Gruenert, 2005; Hoy, 1997) There is reason to believe that strong instructional leadership can be connected to a positive school culture. A collaborative culture results in a positive teacher attitude and improved student performance. (Hoy, 1997; Vail, 2005) Witziers,

This case study examines the influence of instructional leadership on the school culture of the elementary, middle and high school divisions within the American Embassy School. Gruenert (2005) questions, “Why some leaders are successful and others are not when it comes to shaping new cultures is a question that requires a deeper look into those cultures.” (p 49) A deeper and elaborate look at principal instructional leadership and school culture in this dissertation provides a stronger link between school leadership and student achievement through indirect methodology.

The Statement of Study Purpose

The purpose of this case study is to examine the influence of principal instructional leadership on school culture in the American Embassy School in New Delhi, India.

Research Questions

1. How does the instructional staff view principal instructional leadership in the American Embassy School’s elementary, middle, and high divisions?
2. How does the instructional staff view school culture in the American Embassy School’s elementary, middle, and high divisions?

3. What is the relationship between principal instructional leadership and school culture?

4. What is the influence of instructional leadership on school culture?

**Definitions**

1. **Instructional Leadership** – A term to describe a leadership style, which focuses on the instruction of students and improving learning outcomes. Smith and Andrews (1989) define the instructional leader as someone who is a resource provider, a instructional resource, a communicator, and a visible presence. Hallinger (1987) offers that the principal defines the mission, manages the curriculum and instruction, and promotes the school climate.

2. **School Culture** – There is not one accepted definition of school culture, but Deal and Peterson (1999) describe it as the underlying tone of a school that permeates everything: actions, expectations, behavior, relationships, collaboration, beliefs, values, and assumptions.

3. **Collaborative School Cultures** – Schools where teacher development is facilitated through mutual support, joint work, and broad agreement on educational values (Fullan & Hargreaves, 1996) Collaborative school cultures are the best environment for learning for student and teacher learning. (Gruenert, 2005)

4. **International school** – A term for a school that attempts to meet the needs of students from a variety of cultures and countries. International schools serve the
needs of a majority of expatriate families who live in the host country for a
limited amount of time, which is generally from two to five years.

Organization of this Study

Chapter one introduces the background of the study, including the significance of
the study. Four questions frame the research design. Chapter two reviews the relevant
literature. Chapter three covers the research methodology in detail. Chapter four
examines and analyzes the results of the study. Chapter 5 introduces the findings of the
study, makes recommendations for future research and highlights contributions to
leadership theory and practice.
CHAPTER 2

The Literature Review

“It is the mark of an educated mind
to be able to entertain a thought without accepting it.”

-- Aristotle

This literature review critically examines the research relating to instructional leadership and school culture. The review charts the history and evolution of instructional leadership model for school principals. Since being introduced in the early 1980s, principal instructional leadership has continually evolved. (Hallinger & Heck, 1998; Heck & Hallinger, 2005) This review examines instructional leadership literature from each decade beginning in the 1980s, followed by the 1990s and concluding with the 2000s.

The second section of the review examines school culture. The literature review draws upon researcher’s definitions of culture and leads into organizational culture, and school culture. Lastly, the review includes culture as it relates to school leadership and student achievement.

Instructional Leadership

This section reviews the literature about instructional leadership from the three decades listed above. Some of the research conducted during the early 1980s reflected upon the state of instructional leadership before it became a common theme in education.
Much of this literature review focuses on research beginning in 1982. Hallinger and Heck (1996; 2005) assert that the first important studies on school leadership were conducted by Bridges (1982) and Bossert (1982). These researchers claim that school administrator research conducted prior to 1982 had little effect upon the field of education. (Bossert, 1982; Bridges, 1982; Hallinger & Heck, 1996; Heck & Halinger, 2005) Bridges (1982) states, “Research on school administrators for the period 1967-1980 reminds me of the dictum: ‘The more things change, the more they stay the same.’ The state-of-the-art is scarcely different from what seemed to be in place 15 years ago.” (p. 24)

Gilbert Austin (1979) disagrees with this position. He synthesized the research from this period through the 1970s searching for exemplary schools and the reasons for their effectiveness. His findings indicate that there were significant advances in discovering trends underlying effective leadership although these may not have had an immediate impact upon schools and learning.

In regards to principal instructional leadership, Austin (1979) frames his findings around the power of the leader. In the studies that Austin examined, he discovered that effective principles are a result of what is called expert power. Teachers, students, and the community view the principal as an expert instructional leader. (Austin, 1979) The second characteristic is principles all have unusually high expectations for students and teachers. The third finding is the administration, the community, and the students all agree on what they want to accomplish. The final finding is school climate must be open to the idea of collaboration. Austin (1979) concludes by stating, “When the teachers and
other school personnel feel successful about education in their school, children also believe they can achieve and they do.” (p. 14)

The 1980s.

Research about instructional leadership surfaced in the 1980s. In 1982, in the same issue of Educational Administration Quarterly, Bossert (1982) and Bridges (1982) both explain the need to shift educational research. As a result, the new field of instructional leadership emerged. Bridges reviewed studies in education administration from 1967-1980. Bridges (1982) states that, “In short, there is no compelling evidence to suggest that a major theoretical issue or practical problem relating to school administrators has been resolved by those toiling in the intellectual vineyards since 1967.” (p. 25)

Instead of focusing on past research like Bridges (1982), Bossert (1982) looks ahead to the new field of instructional leadership as a solution. He explores the need to shift research away from descriptions of a principal being an educational manager toward how the results of their actions and behavior effect and impact student learning. Bossert (1982) explains:

Aside from the standard educational administration admonitions that describe what a good manager should do, the research and practice literature do not present models that describe how certain management or leadership acts become translated into concrete activities which help children succeed. (p. 17)

Both of these studies opened the door for further research on how a principal’s actions affect the school and student learning. In 1983, Phillip Hallinger developed the Principal Instructional Management Rating Scale which he revised in 1987. Since its
development, researches have used the tool over 80 times. (Hallinger & Ronald, 2005)

Hallinger divides instructional leadership into three main dimensions: define the mission, manage curriculum and instruction, and promote school culture. The Principal Instructional Management Rating Scale assesses the principal behaviors for each of the constructs. (See Appendix B)

Hallinger (1987) elaborates upon the three dimensions. Each dimension expands into constructs. (See Appendix A for a flow chart containing the dimensions and constructs of instructional leadership)

1. Manage the curriculum: Leaders use a combination of expertise and charisma. These principals are very involved in curriculum and instruction by setting high standards. They often work directly with teachers to improve teaching and learning. In the constructs in this dimension, the leader frames the goals of and communicates the goals.

2. Define the mission: Instructional leaders define the mission by setting goals focused on the improvement of student learning. Principals often communicate the vision, goals, and the mission of the school. In the constructs in this dimension, the leader supervises and evaluates instruction, coordinates the curriculum, monitors student progress, and protects instructional time.

3. Promote school culture: Instructional leaders build culture. They create an arena that develops high expectations and standards for students, as well as for teachers. In the constructs in this dimension, the leader maintains high visibility, provides incentives for teachers, promotes professional development, and it provides incentives for learning.
In 1988, Rick Ginsburg concluded that instructional leadership needed to be better researched in order for principals to enhance teaching and learning. Ginsburg (1988) also argues that the, “. . . shortcomings of the research on school effectiveness and instructional leadership, the problems with defining the concept, and the constraints of the principal’s job as it is typically practiced, all combine to minimize the potential impact of efforts to implement . . . instructional leadership.’’ (p. 290)

Wilma Smith and Richard Andrews (1989) assert that principals make a difference as instructional leaders. They conclude that four trends emerged from research during the 1980s. The four trends focus on the interactions between the school principal and teachers: (Andrews & Soder, 1987; Smith & Andrews, 1989)

1. The principal as resource provider
2. The principal as instructional resource
3. The principal as communicator
4. The principal as visible presence

These roles of the instructional leader provides a crucial link between the activity of the principal and the success of the school. (Fredericks & Brown, 1993)

As the resource provider, the principal leads the school by providing the necessary resources to achieve the desired vision and goals. (Smith & Andrews, 1989) The principal also recognizes that staff members are an important resource of the school and values their contributions. A strong leader uses the resources at hand by delegating some of their power to key people in the organization.

As the instructional resource, the principal facilitates good teaching by staying abreast of the latest instructional strategies and techniques. (Smith & Andrews, 1989)
Later research argues this point by stating that with the latest academic advancements, teachers are expected to be the experts, while the principal facilitates collaboration and the sharing of best practice. (Fullan & Hargreaves, 1996) Smith & Andrews (1989) suggest that principals also set high expectations for faculty and staff, and that everyone is a life-long learner. Principals are ultimately responsible for the improvement of teaching and learning.

As a visible presence, the principal can often be seen out of the office and in the building talking with teachers and students. They become a role model for those around them. By being encouraging, positive, and accessible, they promote a positive school culture and climate. Teachers who see the principal in their classroom on a regular basis strike up conversations about student learning and best practice. (Smith & Andrews, 1989)

As communicator, the principal shares their vision and leads the school in that direction. The principal understands and uses conflict, uses active listening skills, and works with all stakeholders to achieve their vision. Leaders also understand how to manipulate school culture in order to work toward a positive environment. As a culture builder, the principal models teamwork and collaboration. (Smith & Andrews, 1989)

These four trends build upon Hallinger’s three dimensions. The biggest addition is the trend of the principal as a communicator. This trend is more embedded in Hallinger’s dimensions instead of separated. Karl Weick (1982) focuses on principals as communicators. Weick’s work demonstrates the importance of how a principal communicates their goals and vision. Weick describes schools as “loosely coupled” led by principals who value relationships. This is a new way of thinking in schools where
teachers and principals are traditionally isolated in their classrooms and offices. The principal uses these relationships to communicate their goals and vision with others. These valued relationships also establish a common language to help bring about collective support toward the goals and visions. (Weick, 1982)

David Dwyer (1984) spoke extensively to 42 principals about instructional leadership. The research also included multiple observations. These schools included small and large organizations from urban and rural communities. These schools all had similar elements, which help them be successful. Principals relied on their beliefs and experiences, community input, and their desired goals and vision in order to manage school climate in the structure of the organization to provide successful student outcomes. Dwyer (1984) states:

These principles assessed their environments, knew their limitations and strengths, and understood the kinds of programs and outcomes they desired for students. They not only saw themselves as pivotal points around which these elements turned, but they believed in their abilities to influence each of those parts. They directed their energies toward improving the social climate of their schools and the quality of the instructional organization. (p.16)

The 1990s.

The 1990s led to a decreased interest in instructional leadership. During this time period much of the research focused on transformational leadership. (Miles, 2002)

Another area that developed during this time was the philosophy of differentiation by Carol Ann Tomlinson (1999). Tomlinson explains that teachers need to differentiate
instruction and learning in the classroom. Tomlinson explains how leaders can effectively introduce these strategies:

Leaders for responsive, personalized, or differentiated classrooms focus much of their professional energy on two fronts: what it means to teach individual learners effectively, and how to extend the number of classrooms in which that sort of teaching becomes the norm. Now both a rarity and a profound need, effective differentiated instruction stands a chance of proliferating where determined partnerships exist between teaching and administrative leaders with a vision of more effective classrooms, a plan to realize the vision, and a dogged will to persist. (p.8)

Allen Glatthorn (1998) also focuses on performance assessment and how it can lead to better instruction. Glatthorn developed the achievement cycle which is made up of four key elements: “standards based curricula; performance evaluation; assessment-driven instruction; and authentic learning.” (p. 3) This model can then become a framework for an instructional leader to use in a school. (Glatthorn, 2000) As a curriculum leader, the principal leads the learning community toward high student achievement.

In the late 1980s, Richard DuFour, (1991, 1998) shifted the focus away from instruction practices in the classroom to student learning outcomes. Collaborative teams of teachers work and learn together to improve student learning outcomes. Unlike Glatthorn and Tomlinson, DuFour focuses on high performing collaborative teams. DuFour presents six characteristics of a professional learning community:

1. Shared mission, vision, values and goals
2. Collective inquiry

3. High performing collaborative teams

4. Action orientation and experimentation

5. Continuous improvement

6. Results oriented

   DuFour (1998) believes that principals play a key role in creating the conditions that enable schools to become professional learning communities. Schools should become a place in which faculty members share the decision-making process. A shared vision includes faculty members, rather than excluding them through rules and procedures. Professional development trains the staff and teachers to work in collaborative teams in order to improve student learning. The principal models behavior that is in line with the vision and values shared by the school.

   DuFour (1998) asserts that principals must be the guide as schools move toward professional learning communities. They communicate the importance of the mission and values on a daily basis. Principals create structures in which teachers can be collaborative. Teachers are encouraged to be leaders, as principals trust and believe in the teacher’s ability to guide collaborative teams. Finally, principals must believe that continuous improvement requires continuous learning. (DuFour, 1998)

   For professional learning communities to be successful, DuFour reasons that professional staff development programs need to be in place. Professional development needs to be sustained over a considerable period of time. It provides coaching to master new skills that result in reflection and dialogue. Lastly, professional development fosters individual and organizational renewal.

*The 2000s.*

Much of the school leadership theory during the 2000s is rooted in instructional leadership theory developed during the 1980s in 1990s. Research efforts concentrated around principle leadership influencing student-learning outcomes. Many of the themes are familiar: promoting effective instructional practices, focusing the vision of the school, communication, collaboration, and emphasizing effective, professional development.

In 2000, Richard Elmore built upon DuFour’s (1991) theory of professional learning communities in his research. Elmore focuses on Hallinger’s (1987) dimension of curriculum and instruction to improve instruction and the role of the leader. Since the emergence of standards based learning, Elmore asserts that the principal, “. . . should manage the conditions of learning so as to produce a given result.” (p. 9) In order for this model to be successful, a principal needs to have a vast knowledge and understanding of curriculum and assessment. Elmore (2000) states how important this role is for the principal:

Somewhere on the list one usually finds a reference to instruction, couched in strategically vague language, so as to include both those who are genuinely knowledgeable about and interested in instruction and those who regard it as a distraction from the main work of administration. But why not focus leadership on instructional improvement and define everything else as instrumental to it? The skills and knowledge that matter in leadership, under this definition, are those
that can be connected to, or lead directly to, the improvement of instruction and student performance. Standards-based reform forces this question. (p. 14)

Elmore is one of the most recent educational researchers to argue this point. In an ideal world every principal would be an expert in their field, but in reality, school principals need to advocate for collaboration so the expert teachers can share their wisdom with others. (DuFour, 1991, 1998) Elmore also argues that principals need to “buffer” away distractions from teachers to allow them to concentrate on teaching and learning. In turn, superintendents need to buffer distractions away from the principal, so they can focus on helping the teachers with instruction.

Elmore (2000) believes that schools need to change to a distributive leadership model, “Distributed leadership, then, means multiple sources of guidance and direction, following the contours of expertise in an organization, made coherent through a common culture.” (p. 15)

Distributed leadership has many aspects in common with instructional leadership. This view of leadership stresses the creation of a common culture, and working toward a common goal or vision in order to improve the instruction. Elmore stresses how important collaboration is in the pursuit of academic excellence.

Kevin McGuire, (2001) from the University of the State of New York's Center for School Leadership, develops nine essential characteristics and abilities for school principals. (Zepeda, 2004) These characteristics and abilities serve as guidelines to help leaders achieve success. Maguire (2001) states the essential knowledge and skills for effective school principals:
1. Leaders know and understand what it means and what it takes to be a leader.

2. Leaders communicate clearly and effectively.

3. Leaders collaborate and cooperate with others.

4. Leaders persevere and take the long view.

5. Readers support, develop and nurture staff.

6. Leaders hold themselves and others responsible and accountable.

7. Leaders never stop learning and honing their skills.

8. Readers have the courage to take informed risks. (p. 15-16)

Robert Marzano, Timothy Waters, and Brian McNulty (2005) performed a meta-analysis of 69 school leadership studies done from 1970-2005. The study computes the correlation between the leadership behavior of the principal and the academic achievement of students to be .25. Highly effective principals have a moderate influence upon student achievement. The strongest principals have the greatest impact, increasing student achievement.

The study identifies 21 factors of the school leader. Marzano, et al., called these factors general responsibilities. Ten of these factors fall under the umbrella of instructional leadership based on previous definitions. (Andrews & Soder, 1987; Bossert, 1982; Bridges, 1982; Dimmock & Walker, 2005; Hallinger, 1987; Hofstede & Hofstede, 2005) The instructional leadership factors that correlate with student academic achievement are: communication, culture, focus, ideals/beliefs, involvement in curriculum, instruction, and assessment, knowledge of curriculum, instruction, and assessment, monitoring/evaluating, relationships, resources, and visibility. The study
Jeffrey Glanz (2006) looks at how the actions and activities of an effective instructional leader improve student learning. Many of these actions are based upon the Marzano et al. research, and the work done by Kathleen Cotton (2003). Cotton identifies 26 best practice leadership principle behaviors that lead to improved student achievement. Most of these 26 behaviors are ways that the principal supports teachers instructionally as they make an effort to improve student learning. (Cotton, 2003)

Glanz (2006) argues that the effective instructional leader needs to be able to do three things:

1. Effective principals support teachers, by providing resources to improve instruction. They make an effort to hire experienced teachers who promote student achievement.

2. Effective principals place an emphasis on academics. They set high expectations and standards for student learning.

3. Effective principals improve instructional practices by conducting instructional conferences with teachers, providing staff development, and developing teacher reflection.

When instructional leaders apply theory into practice, they can use these guidelines to be successful, instructional leaders.

Warren Bennis’ (2003) leadership theory encompasses aspects of instructional leadership. Bennis argues that leaders create and communicate a vision as one of his four critical characteristics of effective leadership. People are often drawn to leaders because
of their ability to be a visionary. Leaders of the future will also engage in creative collaboration. Collaborative teams will rally around the vision and be guided toward the collective goals of the organization. Other characteristics include leaders must have a clear and distinctive voice, leaders must operate as people of character and values, and leaders must have the ability to adapt to change. (Bennis & Goldsmith, 2003)

Hallinger (2005) reflects upon the research conducted during the 1980s and 1990s by assessing the instructional leadership role of the school principal. He concludes that instructional leaders:

1. Focused on creating a shared vision. This aligns with much of the general leadership research. (Bennis, 2003; Bennis & Goldsmith, 2003; Bolman & Deal, 2003; Northouse, 2007)
2. Developed a climate of high expectations
3. Guided the continuous improvements of the school
4. Monitored the curriculum and student learning outcomes
5. Created and communicated the school's vision
6. Orchestrated staff development
7. Became a visible presence in the school by modeling the shared values of the school's culture

In conclusion, Hallinger (2005) agrees with Bennis (2003); leaders cannot lead by themselves. A successful instructional leader needs substantial participation of other educators in a collaborative effort to lead the school toward the shared vision. This conclusion also supported much of Richard DuFour’s (DuFour, 1991, 1998) work on
learning communities and more recent work on principal evaluation by Nancy Catano and James Stronge. (2007)

Many of the earlier researchers sought that the principal become an expert in the curriculum taught at their school. This view transitioned toward the principal leading collaborative teams of expert teachers to improve student learning.

_School Culture_

This section reviews school culture. First, the section explores the many definitions of school culture. Next, it covers national culture, followed by organizational culture and school culture. Finally, the review looks at the link between school culture and leadership and the link to student achievement.

_Definitions of Culture_

Culture is an abstract concept that can be found within any group of individuals with a shared history. The history includes shared experiences, purpose, conflicts, rituals, celebrations, myths, and traditions. (Deal & Peterson, 1999) Edgar Schein (2004) states that culture defines a group of people as personality defines an individual. Learning about a culture, Schein argues, will lead to an understanding about the camouflaged and intricate life inside the group of people. This reasoning can be applied to a small group of people, an organization, or a nation.

The term culture has been used to define a person. For example, a person is “cultured” if they have a good understanding and exposure to the arts. Culture also defines a society. It includes the history, customs, language, dress, and traditions of a society. This review focuses on organizational culture and school culture in particular.
This is referred to as the essence of an organization formed by the collective experiences of the individuals within the organization.

Schein’s (2004) formal definition of culture is: “a pattern of shared basic assumptions that was learned by a group as it solves its problems of external adaptation and internal integration that has worked well enough to be considered invalid and, therefore, to be taught to new members as the correct way to perceive, think, and feel in relation to those problems.” (p. 17) According to Schein, (2004) culture is a shared set of values (assumptions) learned by the group as the people in the group lead their daily lives. When new members coming to the group, they learn the correct way perceive, think, and feel. Culture provides the organization with a sense of identity. This permeates all levels of the organization and continues to exist as member of the organization leave and new ones enter. Culture is hard to change because it is the accumulation of all that the organization believes in as it leads to stability and a predictable course of action. Culture is the essence that influences the group’s behavior. “Culture can be thought of as its DNA.” (Schein, 2004, p. 21)

Geert and Gert Hofstede (2005) provide a simple definition of culture, “Culture is a collective programming of the mind that distinguishes the members of one group or category of people from others.” (p. 4) Hofstede and Hofstede (2005) argue that culture is learned from one’s social environment. In the cases of national culture, and individual learns the culture of the group at a very young age. In organizational culture, one also learns the culture upon the formation or joining of the organization.
Deal and Peterson (1999) quote Marvin Bower (1966) as he, “suggests simply that culture is ‘the way we do things around here’.” (p. 3) This definition provides a simple and accurate definition of culture until someone wants to change it.

**National Culture**

Geert Hofstede, (Hofstede & Hofstede, 2005) a Dutch researcher and organizational behavior specialist, designed one of the first large scale cultural studies. The original research in the 1970s involved more than 120,000 surveys and follow-up interviews with hundreds of IBM employees in more than 60 countries. Using the data, he concludes that there are five dimensions of national culture:

1. Power distance
2. Uncertainty avoidance
3. Individualism and collectivism
4. Masculinity and femininity

This first in depth study of national culture served as a springboard to other studies involving both national cultures and organizational cultures.

The GLOBE study built on the Hofstede’s work. (House & Global Leadership and Organizational Behavior Effectiveness Research Program, 2004; Northouse, 2007) This study focuses on culture and leadership and concludes there are nine cultural dimensions:

1. Uncertainty avoidance
2. Power distance
3. Institutional collectivism
4. In-group collectivism
5. Gender egalitarianism
6. Assertiveness
7. Future orientation
8. Performance orientation
9. Humane orientation

These same leadership dimensions can be applied toward schools and organizations in all cultures.

Organizational Culture

Hofstede and Hofstede (2005) applied their theory of cultural dimensions to organizational cultures in their 1987 study called the Institute for Research on Intercultural Cooperation (IRIC). They conclude that there are six dimensions of organizational culture: (Hofstede & Hofstede, 2005)

1. Process oriented versus results oriented
2. Employee oriented versus job oriented
3. Parochial versus professional
4. Open system versus closed system
5. Loose control versus tight control
6. Normative versus pragmatic

They also conclude that the main difference between organizational culture and national culture is that national cultures are more deeply imbedded since people gain their cultural identities at such a young age.
Boleman and Deal (1984, 2003) identify four frames within organizations. The first frame is the structural approach. This approach embodies clear goals, policies, a chain of command and results. The second is the human resource frame, which emphasizes people skills within an organization. The third is the political frame that emphasizes, power, conflict and resources. The final is the symbolic frame that focuses on cultivating organizational cultures and rituals.

Most school leaders rely heavily on the structural frame. (Deal & Peterson, 1999) Many of the goals stated in No Child Left Behind fit into this frame as well as most of the former school reform efforts. The day-to-day school operations involve the human resource frame as people interact with each other.

School culture is a large part of the symbolic approach to organizations. Boleman and Deal (2003) show that the symbolic frame centers on the concepts of symbols, myths, rituals and ceremonies. Many of these concepts are included in their framework for understanding culture. They conclude that strong cultures produce results.

_School Culture_

The definitions of school climate and school culture are often blurred. (Hoy, 1997) Much of the early research focused on organizational culture. Rentsch (1990) defines organizational culture as the way members of the organization interpret events and create their own meaning and understanding. Each member creates their own meaning within the organization and the culture is the accumulated understanding derived from the meaning.

Hopkins (1994) defines school culture as the observed patterns of behavior in a school. For example, one might visit a school and see how teachers interact in the staff
room and the patterns they establish. The mission statement also speaks volumes for the school and the common beliefs. After the mission statement are the philosophy statements for each school. A common philosophy guides teaching and learning in each subject area. The last area that represents culture according to Hopkins is the unwritten policies and procedures a new teacher needs to learn in order to succeed both socially and professionally in their school.

Deal and Peterson (1999) state that, “School cultures . . . become like tribes and clans, with deep ties among people and with values and traditions that give meaning to everyday life.” (p. 21) Deal and Peterson take culture a step further and identify the people who shape school culture. Teachers, principals and key decision makers shape culture with their values, beliefs, and assumptions. Deal & Peterson (1999) continue by connecting culture to the actions within an organization, “Cultural patterns are highly enduring, have a powerful impact on performance, and shape the ways people think, act and feel.” (p. 4)

Hoy defines school culture is a system of shared orientations that hold a unit together and give it a distinctive identity. (Hoy, 1997) This identity can be either positive or negative. It can also be collaborative or singular in nature. A school culture has a direct impact on student learning.

*The Elements of School Culture*

School culture is very complicated as indicated in the various definitions. Most researchers agree on the basic elements, but often have them arranged in different categories. Researchers also fall back on the Bolman and Deal’s (1984) framework of organizational analysis. Deal and Peterson (1999) define the elements of school culture as
vision and value, ritual and ceremony, history and was stories, and finally architecture and artifacts: “Knitting the elements of culture into an artistic tapestry is like creating a word from the letters of the alphabet. Juxtaposed with one another letters forming meaningful expression, just as combining the elements of culture create a cohesive school identity.” (p.69) Understanding the elements of school culture is just as important as understanding the individual letters from the alphabet.

*Vision and value.*

Bolman and Deal (1984) argue that the elements of vision and values combine to create myths and myths are the spiritual source of schools: “Educational organizations with weak sagas are uncertain, embattled, and vulnerable to internal and external pressures. A shared myth makes it easier to develop internal cohesion and sense of direction to maintain the confidence and support of external constituencies.” (p. 155)

The vision and purpose of an organization define success. (Schein, 2004) Schools often outline these in the mission statement and school beliefs. Everyone in the school needs to know and believe in these statements to facilitate a strong culture. All schools have different mission statements shaped by their student and parent populations. A shared purpose enables staff to see the school’s reason for existence. Even though schools have different visions, they often share some of these themes: academic and extracurricular success, community service, performance, learning, change, and students meeting their potential. (Deal and Peterson, 1999)

*History and stories.*

History and stories also bring myths to life in school culture. Elements of history form and shape school culture. “A learning organization is one that mines past and
present experiences for important lessons and principles . . . Recounting history transmits
these important precepts, giving meaning to cultural practices and ways.” (Deal &
Peterson, 1999, p. 48) Schools and organizations learn from past successes and failures
and apply it toward the present and the future. The elements of history that need to be
understood are: leadership, crises, conflicts, people, relationships and changes.

Boleman and Deal (1984) state that, “Stories convey information, morals, and
myths vividly and convincingly . . . Stories are the medium for communication and
organization’s central myth to insiders and outsiders. They establish and perpetuate
organizational tradition.” (p. 156-157) Ancient cultures used oral narratives to pass on
important information, values and morals. Today, stories often serve the same purpose
and often include humor and emotional voice. In schools, these stories are told to increase
the understanding of life’s daily events and to share illustrate expectations. Stories
communicate and perpetuate culture.

**Rituals and ceremonies.**

Rituals in schools often begin as routines. They become linked to the school’s
purpose and mission. They develop a history and begin to take on a life of their own as
they become imbedded in the hearts of the school community. (Deal & Peterson, 1999)
Rituals connect teachers, administrators, students, and parents to the school culture. For
example, new teachers might go through an initiation ritual as they begin their first year
in the school. Rituals are used to connect and teach individuals about the school culture.

Ceremonies are used to celebrate staff and student accomplishments. These
ceremonies can also be used to reinforce shared values. (Deal & Peterson, 1999) They
come in the forms of opening ceremonies, graduations, or mid year assemblies. In
addition, staff and students are often recognized for special contributions. These ceremonies strengthen culture by involving asking everyone to share and celebrate success.

History and traditions.

Events from the past influence present culture. (Deal & Peterson, 1999) One must learn the past to understand the present. This can be broadly applied to all areas of culture, but is critical in understanding school culture. It takes time to establish a culture. Often in cases, longer histories represent more established cultures. Past conflict, success, tragedies, and celebrations form culture. Changes often mark the passage of time as they leave a lasting impact. Some last longer than others. Influential individuals also leave their mark. Leadership often contributes by creating past visions of success. Deal and Peterson (1999) conclude, “A learning organization is one that mines past and present experiences for important lessons and principles.” (p. 50)

Architecture and artifacts.

The architecture and surroundings represent the environment of the school. (Deal & Peterson, 1999) School cultures can take on the character of the building or the surroundings and campus. The physical part of the school often places and emphasis on what is most important. State of the art athletic facilities stress school sports while a lot of green space stresses the outdoors. Architecture also creates bonds between all elements of the school by forging meeting places and gathering areas. Lastly, it can give people a sense of pride when architecture incorporates school values and history.

Artifacts and symbols are items that represent the school culture. (Deal & Peterson, 1999) Many times, student work is displayed on the walls. Other items can
include mission statements, core values, and people from the past. Historical artifacts can also adorn the school. These artifacts might even be in the form of flags that represent the student population or statues that signify the local and the school culture.

*Types of school culture.*

School cultures are categorized as either positive, toxic or anywhere in between. Core values within the school often play an important role in determining they type culture one will find in a school. (Saphire & King, 1985; Deal & Peterson, 1999, 2002)

In the past, researchers labeled school cultures in a variety of ways. Susan Rosenholtz (1989) argues that there are “stuck” and “moving” schools. She defines stuck schools as non-supportive of change and improvement. Teachers were often uncertain and isolated. Stuck schools also correlated with negative student performance. In this culture, teachers learn little from each other and low expectations pervades. In moving schools, teachers believe that best practice is always evolving through research, so teachers are always learning. (Rosenholtz, 1989) Teachers improve through collaboration by trusting the process.

Fullan and Hargreaves (1996) offer five types of labels for cultures in school from fragmented individualism to collaborative. At the beginning to the continuum, fragmented individualism is a culture where teachers are isolated in the classroom, protected from outside interference. This culture discourages collaboration and external support. In the next cultural stage balkanization is a culture of competition. Teachers compete for resources, power and supremacy. Little collaboration occurs in the areas of teaching and student learning.
In a culture of contrived collegiality, the administration forms collaborative elements without teacher involvement. (Fullan & Hargreaves, 1996) As a result, true discourse and sharing does not take place, but it can be a good beginning for schools earlier on the continuum. The next type of culture, comfortable collaboration, provides an environment where teachers begin to engage in conversation to meet immediate needs within their classrooms. In the final type of culture, the collaborative culture, there is equal value placed upon individuals and teams as they support each other toward mutual goals.

According to Deal and Peterson, (1999) there are positive and toxic school cultures and all of those in between. A positive school culture is the result of many influences. Schools should be focused on creating a learning community for all involved. All individuals should have a sense of caring and respect for each other. Staff and students need to be positive about their ability to set and achieve lofty goals. Positive attitudes go a long way in developing and maintaining a positive culture.

Toxic cultures are influence by many things that are opposite from positive cultures. People in these cultures tend to concentrate on negative values. (Deal and Peterson, 1999) Classrooms often become isolated with no deeper bond to bring them together. People become fragmented in other ways. The result is that the school lacks a shared vision. People then feel lost and become negative about their situation. The whole culture becomes dysfunctional.

Charles Elbot and David Fulton (2008) offer a continuum model called the Four Mind-Set Model. There are four stages: dependence, independence, interdependence, and the mind-set of integration. In a dependent culture, everyone has a respect for leadership
and will follow this top-down approach. For those who are independent, they do not recognize others in their efforts and often work in isolation. In the interdependence model, teachers use a collaborative approach, working together to solve problems with a greater wisdom. In the final model, the mind-set of integration takes the best qualities from the other three models and integrates them to develop a flexible culture that teaches awareness of all four dimensions.

It is important for leadership to identify their school culture before making intentional changes. Elbot and Fulton (2008) suggest using a survey and asking parents, teachers and students to use a rubric to grade their culture. The rubrics can be helpful in identifying how far along the school is on the Four Mind-Set Model from dependence to the mind-set of integration referred to earlier. (Elbot & Fulton, 2008) Robert Ramsey (2008) states, “The point is that assessing your school’s culture isn’t just a nice, trendy thing to do; it’s a leadership imperative. Anything less is a dereliction of duty.” (p. 41)

Assessing School Culture

There are many different ways to assess school culture with none being perfect. Most often, schools need to identify how deeply they wish to assess their culture. Ramsey (2008) offer that the best way to get a quick assessment of school culture is with traditional pencil and paper surveys. He gives three examples of such surveys. (Ramsey, 2008) Steven Gruenert (1998) developed The School Culture Survey. Gruenert argues that researchers need to use both quantitative and qualitative assessments to measure organizational culture. The researchers use The School Culture Survey combined with qualitative methods the researcher will gain the necessary insights to describe a culture.

School Culture and Leadership
School leaders can change and shape school culture. Saphier and King (1985) summarize the leader’s role in school culture, “Leaders with culture-building on their minds bring and ever-present awareness of these cultural norms to their daily interactions, decisions, and plans, thus shaping the way events take place.” (p. 72)

Culture is linked to all of the organization’s functions.

Schein (2004) took the connection between leadership and culture further by arguing that creating and managing culture is the most important things leaders do. Leaders and managers are separated by their ability to identify, change and manage culture. A manager only knows how to act within an existing culture. Schein (2004) continues by declaring that the, “ultimate act of leadership is to destroy culture when it is viewed as dysfunctional.” (p. 11)

Many cultures, including school cultures go through a cycle of birth, change, destruction, and rebirth. (Schein, 2004) During the birth process, people create the culture by sharing their assumptions to shape the group’s identity. The culture then begins to shape the individuals. New members join and the culture changes with the group dynamics. If the culture becomes toxic, leaders often need to destroy the existing culture and nurture the rebirth of the new culture. (Deal & Peterson, 1999)

Effective school leaders can read and shape a culture. They need to look for the deeper understanding of what is happening in the school. A leader needs to investigate and understand past, present and future dreams and realities. The principal then needs to bring everyone on board to change the culture by sharing leadership. Deal and Peterson (1999) believe that deep and shared leadership creates the strongest and tightest cultures.
A leader arrives at a shared vision for the whole learning community. The principal then models this vision in everything they do and say. Even their office should reflect the culture of the school. Deal and Peterson compare a school leader to a potter. The leader shapes school culture as a potter shapes a pot with passion, energy and vision. During change, a leader will ease the pain of transitions and heal the wounds that may appear.

Ramsey (2008) offers six building blocks to build a successful school culture. The first block, independence, encourages principals to allow their staff to freely make choices, changes and to take chances. The second building block is empowerment. Leaders can gain power by relinquishing it to others. (Bolman & Deal, 2003; Ramsey, 2008) Trust is the third block. Ramsey argues that leaders must trust others in order to build trust, as well as be truthful, respectful, and keeping promises. In the next block, caring, a leader needs to model a caring attitude about kids, the staff and the institution. A leader also needs to be loyal by showing that everyone will look out for each other. The last block, communication, is the life-blood of school culture. Communication begins with communicating the school’s mission and articulating your beliefs and values.

Leadership and culture are linked in all organizations. Culture can create new leaders and leaders can create, manipulate and even destroy cultures. Fullan and Hargreaves (1996) argue that principals who are unsupportive and blocking often promote toxic cultures. Principals need to be supporters and providers for teachers, creating opportunities for growth and change. Elbot and Fulton (2008) argued that leaders must also borrow the best from other school cultures while at the same time create their own unique school culture. Douglas Reeves (2007) summarizes by stating, “Meaningful
school improvement begins with cultural change – and cultural change begins with the school leader.” (p.92)

*The Link to Student Achievement*

Prior studies have linked a strong, positive, and collaborative culture to improved instruction and greater student achievement. (Fullan, 1988; Rossman, Corbett, & Firestone, 1988) The type of culture also greatly determines if school improvement is possible. A toxic culture often impedes school improvement, while a positive one often allows change to be embraced. (Deal & Peterson, 1999)

In 2005, Steve Gruenert studied the link between student’s achievement and a collaborative school culture. He used the School Culture Survey developed in 1998. (Gruenert, 2005) The survey focuses on six factors of collaborative school culture:

1. Collaborative Leadership (11 items), which describes the behaviors of school leaders as they interact with teachers and facilitate the collaboration among teachers.

2. Teacher collaboration (6 items), which describes teacher behaviors that are expressive of collaborative cultures.

3. Professional development (6 items), which describes the attitudes teachers have toward gaining new ideas and their overall sentiment toward the notion of school improvement.

4. Unity of purpose (5 items), which demonstrates how the mission statement influences teaching.

5. Collegial support (4 items), which describes the collegiality among teachers.
6. Learning partnerships (4 items), which describe the quality of teacher-parent communications. (Gruenert, 2005, p.47)

Gruenert (2005) researched 81 elementary, middle, and high schools in Indiana. He looked at correlations between the six factors of school culture and student achievement scores in math and language arts. The highest correlations were with the factors of unity of purpose (.46** math, .40** language arts) and learning partnership (.47** math, .50** language arts). Five of the six factors, except for learning partnership, correlated more strongly with math than with language arts and the elementary schools scored the highest in all six factors. Gruenert’s research shows that there is a significant link between a positive school culture and increased student achievement.

The assumption is that if a positive relationship can be established between instructional principal leadership and collaborative culture, then one can assume based on Gruenert’s study and others, (Angelides & Ainscow, 2000; Deal & Peterson, 1999; Elbot & Fulton, 2008; Fullan, 1998, 2007; Glanz, 2006a; Gruenert, 2000, 2005; Hoy, 1997, Marzano, Waters & McNultuy, 2005) that this would result in increased student learning.

In summary, the research on principal instructional leadership suggests that it has little direct effect on student achievement. Hallinger and Heck (1998) developed visual representations of the direct effects shown in Model A in Figure 1.

![Model A: Direct-effects](image)

*Figure 1. Model A: Relationship between instructional leadership and student achievement from Hallinger and Heck (1998, p. 162)*
In Figure 2, Model B, shows the relationship between principal leadership and student achievement through indirect effects. In research studies using this model, principal leadership has a significant impact upon student achievement.

![Model B: Mediated-effects](image)

Figure 2. Model B Relationship between instructional leadership and student achievement from Hallinger and Heck (1998, p. 162)

Gruenert’s (2005) research shows a significant relationship between a collaborative school culture (an intervening variable) and student achievement. Since no evidence exists exploring the relationship between instructional leadership and school culture in international schools, this area needs further study.

Summary of the Literature Review

Principal instructional leadership and school culture have each been thoroughly researched, however, there is little research on how principal instructional leadership influences school culture and indirectly impacts student learning.

The field of instructional leadership research emerged as a result of separated studies conducted by Bossert and Bridges published in the same issue of *Education Administration Quarterly* in 1982. They both concluded that was a need for further research on how a principal’s actions affect the school and student learning.

As a result, researchers began an in-depth exploration into the field of principal instructional leadership. In 1983 Philip Hallinger developed the Principal Instructional
Management Rating Scale, which was revised in 1987. This instrument was frequently used to document instructional leadership. Richard DuFour (1991) concludes that instructional leader should strive to create professional learning communities by ensuring principals lead teachers toward collaboration in order to share their expertise with one another.

DuFour’s believes that the principal, in a professional learning community, creates a collaborative school culture. Steven Gruenert (1998) developed the School Culture Survey, which can be used as a quantitative instrument to measure school culture. One of his six factors was collaboration. Using this new instrument, Gruenert concludes that a positive and collaborative school culture results in greater student achievement.

By using Halinger’s (1987) Principal Instructional Management Rating Scale and Gruenert’s (1998) School Culture Survey together, this case study can create knowledge about the influence of instructional leadership on school culture.
CHAPTER 3
Research Methodology

“The purpose of education is to bring out the best in you” – Mahatma Gandhi

This chapter details the use of a mixed methods approach to answer the research questions in this case study. First, the section justifies the rationale for the use of mixed methods in the research methodology. The following sections summarize the use of electronic survey methods, interviews and focus groups and the document analysis. Finally, the chapter describes the participants and the context of the study.

Rationale

This case study uses a triangulation design in order to best answer the research questions through the use of quantitative and qualitative research methods. This design uses both quantitative and qualitative methods to offer different, but complimentary data about the same research topic. (Creswell, Plano Clark, 2007) Case studies are often based on a mix of quantitative and qualitative data collection. Case studies with increased reliability contain, “multiple data collection techniques.” (Yin, 2003, p. 100)

Using mixed methods, this study is designed as a “concurrent triangulation design.” (Creswell & Plano Clark, 2007, p. 64) Qualitative and quantitative data was collected at the same time, but separately. The data analysis was also conducted at the same time, but done separately. The two data sets were merged during the interpretation and summary stage of the study. (Creswell & Plano Clark, 2007)

Surveys were conducted as the preferred method of quantitative data collection while interviews and focus groups were done to collect qualitative data. The rationale for using mixed
methods is to make inferences about the population based upon the sample taken from the
selected international school. (Creswell, 2003)

Creswell and Clark (2007) offer a definition:

Mixed methods research is a research design with philosophical assumptions as
well as methods of inquiry. . . As a method, it focuses on collecting, analyzing,
and mixing both quantitative and qualitative data in a single study or series of
studies. Its central premise is that the use of quantitative and qualitative
approaches in combination provides a better understanding of research problems
than either approach alone. (p. 5)

The rationale for using quantitative methods is based upon the results this study hopes to
achieve. (Vogt, 2007) Since a positive relationship has previously been established between
student achievement and a positive, collaborative school culture, this study identifies a
relationship between principal instructional leadership and the positive, collaborative school
culture. (Hoy & Tarter, 1997; Gruenert, 2005; Vail, 2005) By using surveys, the data identifies
attributes of the population of an international school. (Creswell, 2003) Creswell & Plano Clark
(2007) argue, “When only one approach to research (quantitative or qualitative) is inadequate by
itself to address the research problem, mixed methods research is the preferred design.” (p. 32-
33) This case study uses qualitative methods sequentially follow the quantitative survey
methods. Creswell (2003) states that sequential procedures are used for studies, “in which the
researcher seeks to elaborate on or expand the findings of one method with another method.” (p.
16)

Qualitative methods provide a deeper understanding of the population than quantitative
methods alone can offer. Gruenert (1998) argues that mixed methods are necessary in order for
the researcher to gain the necessary insights to describe an organizational culture. The mixed methods design is recommended when one approach does not answer the questions within a study. (Creswell & Plano Clark, 2007) In order achieve the necessary insights (Gruenert, 1998), focus groups, interviews, and a document analysis further explore the results of the survey.

Richard Krueger and Mary Ann Casey (2000) state the benefits of using focus groups:
A focus group study is a carefully planned series of discussions designed to obtain perceptions on a defined area of interest in a permissive, non-threatening environment. Each group is conducted six to eight people by a skilled interviewer. The discussions are relaxed, and often participants enjoy sharing their ideas and perceptions. Group members influence each other by responding to ideas and comments of others. (p.7)

In conclusion, the rigorous mixed method studies have gained international acceptance as a legitimate research design. (Creswell & Plano Clark, 2007) A mixed method design provides for the use of the best possible methods to address the research questions.

_The Statement of Study Purpose_

The purpose of this case study is to examine the influence of principal instructional leadership on school culture in the American Embassy School in New Delhi, India.

_Research Questions_

1. How does the instructional staff view principal instructional leadership in the American Embassy School’s elementary, middle, and high divisions?

2. How does the instructional staff view school culture in the American Embassy School’s elementary, middle, and high divisions?

3. What is the relationship between the factors of principal instructional leadership and the factors of school culture?
4. What is the influence of instructional leadership on school culture?

*Design of the Study*

According to Robert Yin, (2003) this case study is designed as an embedded, single-case design. The three embedded units, the elementary school, the middle school, and the high school make up the American Embassy School. The advantages of the embedded design is that it offers more focus with multiple sources of evidence coming together to answer the same research questions to enhance the single case study. (Yin, 2003)

To establish construct validity, three steps are necessary. (Yin, 2003) First, this case study uses multiple sources of evidence in the forms of surveys, interviews, focus groups, and a document analysis. Second, this case study established a chain of evidence during data collection by creating a data base for all information collected during the study. Third, a draft of this study was successfully reviewed by director of the American Embassy School, then it was presented to the key administrative stakeholders.

Internal validity was established by providing multiple perspectives in the form of theory triangulation in order to minimize the threats to the validity of the study. (Yin, 2003; Gibbert, Ruigrok & Wicki, 2008) Different perspectives examined during the literature review and looking at the elementary, middle, and high schools establish internal validity.

In summary, this case study is designed to provide the best possible analysis of the influence of principal instructional leadership on school culture in the American Embassy School by using mixed methods and providing multiple sources of evidence in order to triangulate the data. Figure 3 explains the case study design.
The research questions were answered by using two existing survey instruments combined into one electronic survey using Survey Monkey. The existing survey instruments this study uses are the Principal Instructional Management Rating Scale developed by Philip Hallinger (Revised in 1987) and the School Culture Survey developed by Steven Gruenert (1998). Both Hallinger and Gruenert provided written consent through emails. All of the teachers at the American Embassy School were emailed electronic copies of the surveys. Included in the electronic survey was a question granting permission for participation. (See Appendix D)

The first instrument, The Principal Instructional Management Rating Scale, was developed by Philip Hallinger in 1987. This instrument measured ten factors of instructional
leadership. The Principal Instructional Management Rating Scale has measured instructional leadership in over 100 studies. (Hallinger, 2005) Validity and construct validity for the Principal Instructional Management Rating Scale was established through the use of a pilot survey.

Principal Instructional Management Rating Scale.

The purpose of this survey is to assess principal instructional leadership. The survey establishes three dimensions of instructional leadership. Within these dimensions are ten functions or factors. (Hallinger, 2005)

1. *Defining the School’s Mission*: includes how the principal determines the central purpose and vision of the school. This dimension contains two functions: Framing the School’s Goals and Communicating the School’s Goals. (Hallinger, 2005)

2. *Managing the Instructional Program*: includes the engagement of the principal in stimulating, supervising, and monitoring teaching and learning of students in the school. This dimension contains three leadership functions: Supervising and Evaluating Instruction, Coordinating the Curriculum and Monitoring Student Progress. (Hallinger, 2005)

3. *Promoting a Positive School Learning Climate*: Includes how the principal develops a collaborative and positive school culture of continuous improvement. This dimension contains five leadership functions: Protecting Instructional Time, Promoting Professional Development, Maintaining High Visibility, Providing Incentives for Teachers, and Providing Incentives for Learning. (Hallinger, 2005)

For this case study, the reliability coefficient for The Principal Instructional Management Rating Scale is .97 showing strong internal reliability. For the purpose of this case study, the factor of Professional Development found in The Principal Instructional Management Rating
Scale was dropped from the analysis in order to avoid confusion with the factor of Professional Development from The School Culture Survey and to eliminate a tautological element. In choosing to drop the factor from The Principal Instructional Management Rating Scale, it increased the integrity of this case study without undermining the results.

*The School Culture Survey.*

The second instrument, The School Culture Survey developed by Steven Gruenert in 1998, measures six factors of school culture. For this case study, the reliability coefficient score for The School Culture Survey is .93 showing strong internal reliability. The School Culture Survey began as a 79 question pilot instrument and was reduced to 35 items using a Varimax rotation. Validity of the survey was established by correlating the survey with the National Association of Secondary School Principals Climate Survey. A factor analysis was conducted with this survey to identify six factors. The purpose of the School Culture Survey is to assess the factors of school culture. Six factors of school culture were established within the survey:

1. *Collaborative Leadership:* describes the degree to which school leaders establish and maintain collaborative relationships with school staff. The leaders value teacher's ideas, seek their input, engage them in decision-making, and trust their professional judgments. Leaders support and reward risk-taking, innovation, and sharing of ideas and practices. The reported reliability coefficient (coefficient alpha) for this factor is .91. (S. W. Gruenert, 1998)

2. *Teacher Collaboration:* describes the degree to which teachers engage in constructive dialogue that furthers the educational vision of the school. Teachers across the school plan together, observe and discuss teaching practices, evaluate programs, and develop an awareness of the practices and programs of other teachers. The reported reliability
coefficient (coefficient alpha) for this factor is .83. (S. W. Gruenert, 1998)

3. *Professional Development:* describes the degree to which teacher’s value continuous personal development and school-wide improvement. Teachers seek ideas from seminars, colleagues, organizations, and other professional sources to maintain current knowledge, particularly current knowledge about instructional practices. The reported reliability coefficient (coefficient alpha) for this factor is .87. (S. W. Gruenert, 1998)

4. *Unity of Purpose:* describes the degree to which teachers work toward a common mission for the school. Teachers understand, support, and perform in accordance with that mission. The reported reliability coefficient (coefficient alpha) for this factor is .82. (S. W. Gruenert, 1998)

5. *Collegial Support:* describes the degree to which teachers work together effectively. Teachers trust each other, value each other's ideas, and assist each other as they work to accomplish the tasks of the school organization. The reported reliability coefficient (coefficient alpha) for this factor is .80. (S. W. Gruenert, 1998)

6. *Learning Partnership:* describes the degree to which teachers, parents and students work together for the common good of the student. Parents and teachers share common expectations and communicate frequently about student performance. Parents trust teachers. Students generally accept responsibility for their schooling. The reported reliability coefficient (coefficient alpha) for this factor is .66. (S. W. Gruenert, 1998)

*Interviews*

Interviews were conducted with teachers in the elementary, middle, and high schools in order to add a greater depth of understanding than surveys alone. According to Yin (2003), “One of the most important sources of case study information is the interview.” (p. 89) Yin (2003)
recommends that, “Most commonly, case study interviews are of an open ended-nature, in which you can ask key respondents about the facts of the matter as well as their opinions about events.” (p. 90)

During interviews, the researcher can learn different perspectives about the same information. Patton (1990) explains:

We interview people to find out from them those things we cannot directly observe. . . We cannot observe how people have organized the world and the meanings they have attached to what goes on in the world. We have to ask questions about those things. The purpose of interviewing then is to allow us to enter into the other person's perspective. (p. 196)

The researcher developed 13 interview questions to provide in depth responses. All questions were open ended in nature. One-on-one in-person interviews were conducted by the researcher. Interview questions elicited more in-depth responses than the survey questions.

All teachers in the American Embassy School were asked to participate in the interviews. From this pool of volunteers, interviews were conducted with 7 elementary teachers, 4 middle school teachers, and 4 high school teachers chosen at random. Each of the 15 interviews was audio recorded, then transcribed.

Focus Groups

A total of three focus groups were conducted at the American Embassy School. Teachers from each division in the school made up the separate focus groups. There was one focus group made up of elementary teachers, one of middle school teachers, and one of high school teachers.

Unlike individual interviews, focus group participants often share information and opinions with others. Krueger and Casey (2000) explain,
The goal of a focus group is to collect data that are of interest to the researcher-typically to find the range of opinions of people across several group. The focus group presents a more natural environment than that of an individual interview, because participants are influencing and influenced by others-just as they are in life. The researcher serves several functions in the focus group: moderator, listener, observer, and eventually analyst using an inductive process. (p. 11)

A researcher can also observe the behavior of individuals involved interacting in a focus group. Individuals may reinforce a statement previously made or offer a different point of view. Focus groups allow the researcher an opportunity to see how individuals influence each other's behavior and opinions about a given topic. (Krueger & Casey, 2000) All teachers were asked to volunteer for focus groups. Participants were chosen at random from the group of volunteers. Focus groups were conducted with 8 elementary teachers, 8 middle school teachers and 9 high school teachers.

**Document Analysis**

An analysis of documents of the American Embassy School was conducted to ensure triangulation of this case study. The researcher analyzed three different types of documents at the American Embassy School: the Annual School Profile 2008-2009, the Faculty Satisfaction Key Results from the Faculty Satisfaction Survey administered during the 2007-2008 school year, and the Parent Satisfaction Key Results from the Parent Satisfaction Survey administered during the 2007-2008 school year. The advantage of using a qualitative document analysis is that the researcher can use the documents to identify other factors which may influence the study. (Yin, 2003) Yin (2003) summarizes the usefulness of documents, “For some studies, the records can
be so important that they can be come the object of extensive retrieval and quantitative analysis. In other studies, they may be of only passing interest.” (p.89)

Participants

During the time of this research, The American Embassy School, employed 154 teachers. 74 teachers have worked in the elementary school, 31 teachers worked in the middle school, and 48 teachers worked in high school.

Many of the teachers American Embassy School are experienced. Most have more than 10 years of teaching experience as shown in Fig. 3.

Figure 4. Teaching Experience of American Embassy School Faculty

The majority of the faculty has been teaching at the American Embassy School for fewer than five years. Figure 4 shows the number of years faculty taught at the American Embassy School.
Figure 5. The Number of Years Faculty Have Taught at the American Embassy School

Figure 5 shows the number of years that teachers have worked with their current principal. The percentages are higher in the high school since the high school principal worked for the school for the longest time period.
Figure 6. Years Teachers Have Spent With Their Current Principal

The Context of the Study

This study took place at the American Embassy School, an international school located in New Delhi, India. The mission of the school is:

The American Embassy School serves students from the United States and other nations. It provides a quality American education that enables students to be inspired learners and responsible global citizens through the collaboration of a dedicated faculty and a supportive community. (American Embassy School, 2009)

At the start of the 2008-2009 school year, the American Embassy School had an enrollment of 1,348 students. The elementary school enrolled 690 students, the middle school enrolled 363 students, and the high school enrolled 295 students. The student population enrolled
from 52 different countries with students with U.S. passports making up 39% of the student body. For next most populous group of students were from Korea (17%).

Summary

The purpose of this study is to examine the relationship between principal instructional leadership and school culture in an international school. This case study is a triangulated research design using both quantitative and qualitative methods. This study uses two existing survey instruments: The Principal Instructional Management Rating Scale developed by Philip Hallinger (Revised in 1987) and the School Culture Survey developed by Steven Gruenert. (1998) Interviews and focus groups were used to collect more in depth data. A document analysis was conducted to ensure triangulation of this case study. This case study uses both quantitative and qualitative methods to offer different, but complimentary data about this research topic.
CHAPTER 4

Results

I hear and I forget. I see and I remember. I do and I understand. – Confucius

This chapter presents the results from research undertaken to examine the influence of principal instructional leadership on school culture in the American Embassy School in New Delhi, India. The results include the document analysis, the summary of the survey data, and interviews, and focus groups completed by teachers at the American Embassy School from April 2008 though September 2008. The School Culture Survey and the Principal Instructional Management Rating Scale were used to survey 132 teachers in the elementary, middle and high schools. These surveys were followed with interviews from teachers in the elementary, middle, and high schools. Interviews were then conducted with 7 elementary teachers, 4 middle school teachers, and 4 high school teachers. Following the interviews, focus groups were conducted with 8 elementary teachers, 8 middle school teachers and 9 high school teachers. This mixed method study focused on the following research questions:

1. How does the instructional staff view principal instructional leadership in the American Embassy School’s elementary, middle, and high divisions?
2. How does the instructional staff view school culture in the American Embassy School’s elementary, middle, and high divisions?
3. What is the relationship between principal instructional leadership and school culture?
4. What is the influence of instructional leadership on school culture?
The results of this chapter are organized into five sections. The first section includes an analysis of documents from the American Embassy School. The second section provides a quantitative analysis of the electronic survey results to provide descriptive statistics about principal instructional leadership in the American Embassy School. This section also includes the results from interviews and focus groups about principal instructional leadership. The third section provides a quantitative analysis of the electronic survey results to provide descriptive statistics about the school culture of the American Embassy School. This section also includes the results from interviews and focus groups about principal school culture. The fourth section uses the quantitative analysis results to examine the correlation between the factors of instructional leadership and school culture using Correlations and partial correlations. This section also includes the results from interviews and focus groups about the relationship. The fifth section uses the quantitative analysis results to examine the influence of instructional leadership on school culture using multiple regression analysis. This section also includes the results from interviews and focus groups.

Section 1 – Document Analysis

Three different internal documents from the American Embassy School were used in this research. Each year, the school puts together the American Embassy School Annual School Profile with quantitative data from the last ten years. The second document was the 2007-2008 American Embassy School Faculty Satisfaction Survey. The third document was the 2007-2008 American Embassy School Parent Satisfaction Survey. The surveys were designed to reflect the satisfaction of teachers and parents with the organization.

The American Embassy School Annual School Profile records, graphs and compares the most recent ten years of data. It is organized into four sections: enrollment, financial, satisfaction, and student achievement. The director of the American Embassy School stated the purpose of the School Profile:

The purpose of the School Profile is to provide a quantitative portrait of A.E.S. is, that would be useful in monitoring key variables in enrollment, demographics, parent, is on the faculty satisfaction, and student performance. In the profile is for use by the Board and Administration, not for widespread distribution. (p.1, 2008)

Data from Enrollment over the Years showed that the student enrollment has risen substantially during the last five years. As a result, the American Embassy School built a new high school which opened early in 2009. Refer to Figure 6 for a detailed description from the American Embassy School Annual School Profile. (p. 3, 2008)
Figure 7. *Enrollment Over the Years at the American Embassy School*

Enrollment by School Division shows a similar picture in Figure 7. (p.4)

Figure 8. *Enrollment by School Division in the American Embassy School*
Figure 8 shows that corporations were mostly responsible for the increased enrollment at AES. (p. 6)

Figure 9.  Number of Students by Type of Organization at the American Embassy School
Many of the new students were Indian passport holders and of Indian origin based on parents passports being Indian. Figure 9 shows the increase: (p.11)

![Bar chart showing the increase in Indian passport holders and Indian origin students at the American Embassy School.](image)

**Figure 10.** *Indian Passport and Indian Origin Students at the American Embassy School*
The theme that continued to present itself was that the school is growing. As the Indian economy grew and more Indian nationals returned to India, the school needed to grow to accommodate the influx of students.

Other quantitative data in the School Profile showed how the increased enrollment impacted other parts of the organization, but are not relevant to this research. Student performance data remained consistent over time.

Faculty Satisfaction Survey Results

The 2007-2008 American Embassy School Faculty Satisfaction Survey had 58 questions and was administered online. Respondents answered using a five point Likert Scale ranging from strongly agree to strongly disagree. 139 members of the faculty fully or partially the survey and answered the first question with only 82 answering all of the questions. Data was reported using the percent of the respondents who agreed with or disagreed with a statement.

Two questions specifically addressed elements principal instructional leadership: (American Embassy School, 2008, March)

I have confidence in my principal’s leadership.

My principal is accessible.

103 faculty members responded to each question. The theme which emerged from was that more teachers in the elementary school had greater confidence in their principal’s leadership. Results from the middle school showed that teachers had more confidence in their principal’s leadership than the high school. Results from teachers in the high school showed that teachers did not have as much confidence in their principal
as the middle and elementary schools. All teachers in all divisions considered their principal as accessible without a significant difference.

Two questions specifically addressed elements of school culture: (American Embassy School, 2008, March)

I experience a positive teaching climate at AES

Decision making at the building level is collaborative.

118 faculty members responded to the first question while 109 faculty members responded to the second question. Almost all teachers answered that they experience a positive teaching climate in all three divisions. There was no significant difference between divisions. The theme which emerged was that more teachers in the elementary school considered the decision making process more collaborative than either the middle or high schools. The middle school teachers agreed with the statement more frequently than the high school teachers.

Parent Satisfaction Survey Results

The 2007-2008 American Embassy School Parent Satisfaction Survey had 85 questions emailed to parents and was fully or partially completed by 459 parents. Respondents answered questions on a five point Likert scale which ranged from strongly agree to strongly disagree. Results were not broken down by school division since many families have children attending multiple divisions within the school.

The general theme of the results indicated that parent satisfaction is not as high as in previous years. The percent of parents who agreed with survey statements was significantly lower than in past years.

Section 2 – Descriptive Statistics of Instructional Leadership
The primary purpose of this section is to provide answers to the first research question:

1. How does the instructional staff view principal instructional leadership in the American Embassy School’s elementary, middle, and high divisions?

Elementary, middle and high school teachers rated the school culture of the American Embassy School using the Principal Instructional Rating Management Scale (Appendix B). The Principal Instructional Rating Management Scale consists of 50 5-point Liekert-scale items where 1 = Almost Never, 2 = Seldom, 3 = Sometimes, 4 = Frequently, and 5 = Almost Always. Higher ratings on the factors of the Principal Instructional Rating Management Scale demonstrate stronger agreement with the survey statement.

Descriptive Statistics for the Instructional Leadership of the American Embassy School

For a response rate of 86%, 132 out of 154 teachers within the American Embassy School responded to the survey. All questions were answered. Table 1 shows school culture descriptive statistics for the teachers of the American Embassy School:

<table>
<thead>
<tr>
<th>Factor</th>
<th>N</th>
<th>Mean</th>
<th>Standard Deviation</th>
<th>Min.</th>
<th>Max.</th>
<th>Coefficient of Variation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Protect instructional time</td>
<td>126</td>
<td>3.90</td>
<td>0.66</td>
<td>2.0</td>
<td>5.0</td>
<td>.17</td>
</tr>
<tr>
<td>Communicate the School Goals</td>
<td>126</td>
<td>3.68</td>
<td>0.80</td>
<td>1.8</td>
<td>5.0</td>
<td>.22</td>
</tr>
<tr>
<td>Frame the School Goals</td>
<td>126</td>
<td>3.66</td>
<td>0.86</td>
<td>1.0</td>
<td>5.0</td>
<td>.24</td>
</tr>
<tr>
<td>Monitor student progress</td>
<td>126</td>
<td>3.60</td>
<td>0.67</td>
<td>1.0</td>
<td>5.0</td>
<td>.19</td>
</tr>
</tbody>
</table>
The instructional leadership factor protect instructional time (3.90), has the highest mean, followed in descending order by communicate the school goals (3.68), frame the school goals (3.66), monitor student progress (3.60), coordinate the curriculum (3.45), supervise & evaluate instruction (3.41), maintain high visibility (3.23), provide incentives for teachers (3.20), and provide incentives for learning (3.15).

The instructional leadership factor with the greatest coefficient of variation is provide incentives for teachers (0.33), followed in descending order by coordinate the curriculum (0.27), supervise & evaluate instruction (0.27), provide incentives for learning (0.26), frame the school goals (0.24), maintain high visibility (0.24), communicate the school goals (0.22), monitor student progress (0.19), and protect instructional time (0.17).

*Descriptive Statistics for the Instructional Leadership of the Elementary School*

For a response rate of 83%, 61 out of 74 teachers within the elementary school responded to the survey. All questions were answered. Table 2 shows instructional leadership descriptive statistics for the teachers of the elementary school:

<table>
<thead>
<tr>
<th></th>
<th>Mean</th>
<th>SD</th>
<th>Min</th>
<th>Max</th>
<th>N</th>
</tr>
</thead>
<tbody>
<tr>
<td>Coordinate the curriculum</td>
<td>3.45</td>
<td>0.94</td>
<td>1.0</td>
<td>5.0</td>
<td>126</td>
</tr>
<tr>
<td>Supervise &amp; evaluate instruction</td>
<td>3.41</td>
<td>0.92</td>
<td>1.0</td>
<td>5.0</td>
<td>126</td>
</tr>
<tr>
<td>Maintain high visibility</td>
<td>3.23</td>
<td>0.77</td>
<td>1.6</td>
<td>5.0</td>
<td>126</td>
</tr>
<tr>
<td>Provide incentives for teachers</td>
<td>3.20</td>
<td>1.05</td>
<td>1.0</td>
<td>5.0</td>
<td>126</td>
</tr>
<tr>
<td>Provide incentives for learning</td>
<td>3.15</td>
<td>0.83</td>
<td>1.0</td>
<td>5.0</td>
<td>126</td>
</tr>
</tbody>
</table>

*Table 2 Elementary School Descriptive Statistics for Instructional Leadership*
For the elementary school, the instructional leadership factor frame the school goals (4.07) has the highest mean, followed in descending order by communicate the school goals (3.98), protect instructional time (3.96), coordinate the curriculum (3.93), supervise & evaluate instruction (3.86), monitor student progress (3.77), provide incentives for teachers (3.65), maintain high visibility (3.37), and provide incentives for learning (2.79).

The instructional leadership factor with the greatest coefficient of variation is provide incentives for learning (0.29), followed in descending order by provide incentives for teachers (0.24), maintain high visibility (0.21), supervise & evaluate instruction (0.20), communicate the school goals (0.68), frame the school goals (0.17),
coordinate the curriculum (0.17), protect instructional time (0.16), monitor student progress (0.16).

Descriptive Statistics for the Instructional Leadership of the Middle School

For a response rate of 97%, 30 out of 31 teachers within the middle school responded to the survey. All questions were answered. Table 3 shows instructional leadership descriptive statistics for the teachers of the middle school:

Table 3  Middle School Instructional Leadership Descriptive Statistics

<table>
<thead>
<tr>
<th>Factor</th>
<th>N</th>
<th>Mean</th>
<th>Standard Deviation</th>
<th>Min.</th>
<th>Max.</th>
<th>Coefficient of Variation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Protect instructional time</td>
<td>30</td>
<td>4.13</td>
<td>0.60</td>
<td>3.2</td>
<td>5.0</td>
<td>.15</td>
</tr>
<tr>
<td>Monitor student progress</td>
<td>30</td>
<td>3.67</td>
<td>0.57</td>
<td>2.2</td>
<td>4.8</td>
<td>.16</td>
</tr>
<tr>
<td>Provide incentives for</td>
<td>30</td>
<td>3.67</td>
<td>0.66</td>
<td>2.2</td>
<td>5.0</td>
<td>.18</td>
</tr>
<tr>
<td>Communicate the School Goals</td>
<td>30</td>
<td>3.63</td>
<td>0.80</td>
<td>2.0</td>
<td>5.0</td>
<td>.22</td>
</tr>
<tr>
<td>Frame the School Goals</td>
<td>30</td>
<td>3.58</td>
<td>0.75</td>
<td>1.6</td>
<td>5.0</td>
<td>.21</td>
</tr>
<tr>
<td>Maintain high visibility</td>
<td>30</td>
<td>3.40</td>
<td>0.83</td>
<td>1.6</td>
<td>4.6</td>
<td>.25</td>
</tr>
<tr>
<td>Coordinate the curriculum</td>
<td>30</td>
<td>3.33</td>
<td>0.79</td>
<td>1.0</td>
<td>4.8</td>
<td>.24</td>
</tr>
<tr>
<td>Provide incentives for</td>
<td>30</td>
<td>3.13</td>
<td>0.98</td>
<td>1.4</td>
<td>5.0</td>
<td>.32</td>
</tr>
<tr>
<td>Supervise &amp; evaluate</td>
<td>30</td>
<td>3.06</td>
<td>0.82</td>
<td>1.0</td>
<td>4.0</td>
<td>.27</td>
</tr>
<tr>
<td>instruction</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

For the middle school, the instructional leadership factor protect instructional time (4.13), has the highest mean followed in descending order by monitor student progress...
(3.67), provide incentives for learning (3.67), communicate the school goals (3.63), frame the school goals (3.58), maintain high visibility (3.40), coordinate the curriculum (3.33), provide incentives for teachers (3.13), and supervise & evaluate instruction (3.06).

The instructional leadership factor with the greatest coefficient of variation is provide incentives for teachers (0.32), followed in descending order by supervise & evaluate instruction (0.27), maintain high visibility (0.25), coordinate the curriculum (0.24), communicate the school goals (0.22), frame the school goals (0.21), provide incentives for learning (0.18), monitor student progress (0.16), protect instructional time (0.15).

**Descriptive Statistics for the Instructional Leadership of the High School**

For a response rate of 73%, 35 out of 48 teachers within the high school responded to the survey. All questions were answered. Table 4 shows instructional leadership descriptive statistics for the teachers of the high school.

**Table 4  High School Instructional Leadership Descriptive Statistics**

<table>
<thead>
<tr>
<th>Factor</th>
<th>N</th>
<th>Mean</th>
<th>Standard Deviation</th>
<th>Min.</th>
<th>Max.</th>
<th>Coefficient of Variation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Protect instructional time</td>
<td>35</td>
<td>3.60</td>
<td>0.70</td>
<td>2.0</td>
<td>5.0</td>
<td>.20</td>
</tr>
<tr>
<td>Provide incentives for learning</td>
<td>35</td>
<td>3.32</td>
<td>0.71</td>
<td>2.2</td>
<td>5.0</td>
<td>.21</td>
</tr>
<tr>
<td>Monitor student progress</td>
<td>35</td>
<td>3.25</td>
<td>0.75</td>
<td>1.0</td>
<td>4.4</td>
<td>.23</td>
</tr>
<tr>
<td>Communicate the School Goals</td>
<td>35</td>
<td>3.19</td>
<td>0.76</td>
<td>1.8</td>
<td>5.0</td>
<td>.24</td>
</tr>
<tr>
<td>Frame the School Goals</td>
<td>35</td>
<td>3.01</td>
<td>0.85</td>
<td>1.0</td>
<td>5.0</td>
<td>.28</td>
</tr>
</tbody>
</table>
For the high school, the instructional leadership factor protect instructional time (3.60), has the highest mean followed in descending order by provide incentives for learning (3.32), monitor student progress (3.25), communicate the school goals (3.19), frame the school goals (3.01), supervise & evaluate instruction (2.93), maintain high visibility (2.81), coordinate the curriculum (2.72), and provide incentives for teachers (3.47).

The instructional leadership factor with the greatest coefficient of variation is provide incentives for teachers (0.39), followed in descending order by coordinate the curriculum (0.36), supervise & evaluate instruction (0.39), frame the school goals (0.28), communicate the school goals (0.24), maintain high visibility (0.24), monitor student progress (0.23), provide incentives for learning (0.21), protect instructional time (0.20).

_A Comparison of the Mean Scores for Factors of Instructional Leadership_

The mean score for each factor is presented in Table 5 as a comparison. Most factors for the elementary school had the highest mean, followed by the middle school and finally the high school. The high school has the highest mean for provides incentives for learning followed by the middle and elementary schools. The middle school has the
highest means for protect instructional time and maintain high visibility followed by the elementary and the high schools.

**Table 5 Mean comparisons for the Elementary, Middle and High Schools**

<table>
<thead>
<tr>
<th>Factor</th>
<th>AES Mean</th>
<th>Elementary School Mean</th>
<th>Middle School Mean</th>
<th>High School Mean</th>
</tr>
</thead>
<tbody>
<tr>
<td>Protect instructional time</td>
<td>3.90</td>
<td>3.96</td>
<td>4.13</td>
<td>3.60</td>
</tr>
<tr>
<td>Communicate the School Goals</td>
<td>3.68</td>
<td>3.98</td>
<td>3.63</td>
<td>3.19</td>
</tr>
<tr>
<td>Frame the School Goals</td>
<td>3.66</td>
<td>4.07</td>
<td>3.58</td>
<td>3.01</td>
</tr>
<tr>
<td>Monitor student progress</td>
<td>3.60</td>
<td>3.77</td>
<td>3.67</td>
<td>3.25</td>
</tr>
<tr>
<td>Coordinate the curriculum</td>
<td>3.45</td>
<td>3.93</td>
<td>3.33</td>
<td>2.72</td>
</tr>
<tr>
<td>Supervise &amp; evaluate instruction</td>
<td>3.41</td>
<td>3.86</td>
<td>3.06</td>
<td>2.93</td>
</tr>
<tr>
<td>Maintain high visibility</td>
<td>3.23</td>
<td>3.37</td>
<td>3.40</td>
<td>2.81</td>
</tr>
<tr>
<td>Provide incentives for teachers</td>
<td>3.20</td>
<td>3.65</td>
<td>3.13</td>
<td>2.47</td>
</tr>
<tr>
<td>Provide incentives for learning</td>
<td>3.15</td>
<td>2.79</td>
<td>3.67</td>
<td>3.32</td>
</tr>
</tbody>
</table>

The Mean Difference for Factors of Instructional Leadership between the Elementary, Middle and High Schools

A one-way ANOVA between groups was conducted to compare mean scores on instructional leadership in the elementary, middle and high schools. Table 6, Levene’s
Test of Homogeneity, displays that the significance level is >.05 in all factors except for the factor coordinates the curriculum.

**Table 6  Levene’s Test of Homogeneity of Variances in Scores**

<table>
<thead>
<tr>
<th>Instructional Leadership Factors</th>
<th>Levene Statistic</th>
<th>df1</th>
<th>df2</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Frame the School Goals</td>
<td>.75</td>
<td>2</td>
<td>123</td>
<td>.47</td>
</tr>
<tr>
<td>Communicate the School Goals</td>
<td>.44</td>
<td>2</td>
<td>123</td>
<td>.65</td>
</tr>
<tr>
<td>Supervise and Evaluate Instruction</td>
<td>.30</td>
<td>2</td>
<td>123</td>
<td>.75</td>
</tr>
<tr>
<td>Coordinate the Curriculum</td>
<td>4.85</td>
<td>2</td>
<td>123</td>
<td>.01</td>
</tr>
<tr>
<td>Monitor Student Progress</td>
<td>.96</td>
<td>2</td>
<td>123</td>
<td>.37</td>
</tr>
<tr>
<td>Protect Instructional Time</td>
<td>.14</td>
<td>2</td>
<td>123</td>
<td>.87</td>
</tr>
<tr>
<td>Maintain High Visibility</td>
<td>1.47</td>
<td>2</td>
<td>123</td>
<td>.23</td>
</tr>
<tr>
<td>Provide Incentives for Teachers</td>
<td>.16</td>
<td>2</td>
<td>123</td>
<td>.85</td>
</tr>
<tr>
<td>Provide Incentives for Learning</td>
<td>.65</td>
<td>2</td>
<td>123</td>
<td>.52</td>
</tr>
</tbody>
</table>

The results for the ANOVA found in Table 7 show that the significance value is <.05 for all factors. The Eta Squared value is considered as a large effect for all the factors of instructional leadership.

**Table 7  ANOVA and Eta Squared to Show the Effect on Sizes for Instructional Leadership Factors**

<table>
<thead>
<tr>
<th>Instructional Leadership Factors</th>
<th>Sum of Squares</th>
<th>Eta Squared</th>
<th>df</th>
<th>Mean Square</th>
<th>F</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Frame the School Goals</td>
<td>Between Groups</td>
<td>24.92</td>
<td>.27</td>
<td>2</td>
<td>12.46</td>
<td>22.73</td>
</tr>
<tr>
<td></td>
<td>Within Groups</td>
<td>67.42</td>
<td>123</td>
<td>.55</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Total</td>
<td>92.34</td>
<td>125</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Communicate the School Goals</td>
<td>Between Groups</td>
<td>13.93</td>
<td>.17</td>
<td>2</td>
<td>6.96</td>
<td>12.96</td>
</tr>
<tr>
<td></td>
<td>Within Groups</td>
<td>66.10</td>
<td>123</td>
<td>.54</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Factor</td>
<td>Total</td>
<td>Between Groups</td>
<td>Within Groups</td>
<td>95% CI</td>
<td>p-value</td>
<td></td>
</tr>
<tr>
<td>---------------------------------------------</td>
<td>---------</td>
<td>----------------</td>
<td>---------------</td>
<td>------------</td>
<td>---------</td>
<td></td>
</tr>
<tr>
<td>Supervise and Evaluate Instruction</td>
<td>106.26</td>
<td>24.02</td>
<td>82.24</td>
<td>12.01</td>
<td>.000</td>
<td></td>
</tr>
<tr>
<td>Coordinate the Curriculum</td>
<td>109.82</td>
<td>33.08</td>
<td>76.74</td>
<td>16.54</td>
<td>.000</td>
<td></td>
</tr>
<tr>
<td>Monitor Student Progress</td>
<td>56.08</td>
<td>5.03</td>
<td>49.82</td>
<td>2.52</td>
<td>.003</td>
<td></td>
</tr>
<tr>
<td>Protect Instructional Time</td>
<td>54.62</td>
<td>8.21</td>
<td>49.59</td>
<td>4.11</td>
<td>.001</td>
<td></td>
</tr>
<tr>
<td>Maintain High Visibility</td>
<td>73.45</td>
<td>30.99</td>
<td>65.24</td>
<td>15.50</td>
<td>.000</td>
<td></td>
</tr>
<tr>
<td>Provide Incentives for Teachers</td>
<td>137.12</td>
<td>106.13</td>
<td>16.98</td>
<td>8.49</td>
<td>.000</td>
<td></td>
</tr>
<tr>
<td>Provide Incentives for Learning</td>
<td>86.47</td>
<td>16.98</td>
<td>69.49</td>
<td>.57</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

The mean differences, the standard error, the level of significance, and the 95% confidence interval for difference are compared for each factor of instructional leadership (see Appendix G for complete table).
Significant mean differences between the elementary and high school were the most frequent. Those that reached the significant level were coordinate the curriculum (1.21), followed by provide incentives for teachers (1.18), frame the school goals (1.05), supervise & evaluate instruction (0.93), communicate the school goals (0.79), Maintain high visibility (0.56), provide incentives for learning (-0.53), monitor student progress (0.52), and protect instructional time (0.36).

Significant differences were found between the middle school and high school in provide incentives for teachers (0.67), followed by coordinate the curriculum (0.61), maintain high visibility (0.59), frame the school goals (0.56), protect instructional time (0.54), communicate the school goals (0.44), and monitor student progress (0.43).

Fewer significant differences in school culture were found between the elementary and the middle school in the areas of provide incentives for learning (-0.88), followed by supervise & evaluate instruction (0.80) coordinate the curriculum (0.60), and frame the school goals (0.49).

Interview Results for Principal Instructional Leadership

Interviews offer qualitative data to provide an extra dimension when answering the research questions. When describing the principal instructional leadership in their schools, participants offered an added level of understanding after the survey data were collected. The information, opinions and stories of the participants answer the first question:

1. How does the instructional staff view principal instructional leadership in the American Embassy School’s elementary, middle, and high divisions?

Elementary school interview and focus group results.
Interviews were conducted with seven elementary school teachers. One focus group was conducted with 8 elementary teachers. All teachers in the school were offered an opportunity to be interviewed in either a focus group or individual interviews. The general theme that emerged in the elementary school was that teachers viewed their principal as a strong instructional leader. One elementary teacher emphasized her knowledge of the classroom and curriculum:

“I would say our principal is an instructional leader. I think she has had a lot of experience working in schools. She has worked at every grade level and it is obvious she has a strong sense of knowledge of curriculum and instruction, but she also understands the everyday happenings in a classroom. I think because of that, it makes her a strong instructional leader. She gives feedback, and she is practical but still has a vision. She is also very approachable as a person. She is a kind of leader you can go to with professional questions, with also personal questions. I have often seen that she is one of the few leaders with a close instructional relationship with students. She has often has classes coming to her office to read to them or to ask them about their learning.”

Another teacher spoke about how the principal communicates goals:

“She is an instructional leader and approachable and I think you can see that also in the ways she runs the meetings. I have been on two or three different committees with her, and she does a couple of different things. She definitely starts the meeting by telling people what is it that she wants to accomplish and how she is going to do it, and what the decision making process is. So by the very fact of having the process revealed right away, I think that relieves anxiety that
teachers have that they know that one decision is going to be made and then they know how it is going to happen so there is no confusion. She is a great communicator.”

One teacher stated that the elementary principal has a vision for the entire school and the kids:

“I think our principal doesn’t just have a vision for school, it seems she has a vision for kids in general and is a very forward thinking person. She thinks about the future, and where the world’s headed, and how our curriculum can prepare our students when they become adults. I think I have seen them moving towards more thinking skills like with this new social studies curriculum that we are developing and I think she is really moving in developing kid’s thinking and I think that’s because she is looking at their future. That is really cool.”

*Middle school interview and focus group results.*

Interviews were conducted with 4 middle school teachers. One focus group was conducted with 8 middle school teachers. All teachers in the school were offered an opportunity to be interviewed in either a focus group or individual interviews. The general theme that emerged in the middle school was that teachers viewed their principal as a moderate instructional leader. One middle school teacher emphasized the fact that she maintains the status quo:

“As an instructional leader, our principal has just kind of maintained, anything that I would say that she has not done much to improve instruction. I think she thinks she is improving instruction by all these goals and action plans that we have for department. I think in her mind she is giving us more focus and
improving instruction. We fill out ten thousand documents or common assessments on whether or not they have met our goals and what do we learn from these common assessments? How are we going to change our teaching according to the results? I don't know.”

Another teacher mentions how the curriculum works at the department level, but not as an integrated approach:

“Curriculum seems very departmentalized, which is different from most middle schools. We do not overlap with other subjects. We just focus on what we need to get done with it within the curriculum subject area. I feel like our meeting time is taken up with tasks and forms instead of looking at the big picture. I think the leadership encourages us to meet frequently and often about curriculum but only for our subject area.”

One teacher thinks the middle school lacks vision within instruction:

“I think curriculum is a weakness at this school. I don't think we have a master plan for curriculum, especially in the middle school. We don't have a good understanding of what we're trying to do. It seems like the often we get sucked into what is the latest trend or phase in education without really having a plan. How is it going to make teaching and learning better? So I am not real positive about what our curriculum picture really is, especially from the administration.”

Lastly, a teacher did not see the purpose behind new curriculum development:

“I would say that it is one of the primary weaknesses of this school in my estimation, especially if there were to compare it to other schools. Just because the other schools are doing it were going to adopt it and everyone is told that
they're willing to do it. There is not necessarily the product or the buy in for these activities support for the use is curriculum area. I think this is dangerous ground. You need to set the stage and get the buy in and teachers. Otherwise, teachers have a difficult time valuing that particular task, because teachers are really busy. I think our leaderships in terms of curriculum specifically is a weakness.”

High school interview and focus group results.

Interviews were conducted with 4 high school teachers. One focus group was conducted with 9 high school teachers. All teachers in the school were offered an opportunity to be interviewed in either a focus group or individual interviews. The general theme that emerged in the high school was that teachers viewed their principal as a poor instructional leader. One high school teacher stressed that their principal has a hands off approach to curriculum:

“I think they are pretty much hands off in my classroom, especially in what I teach. They don't care about the topic that I teach or what I cover. I think in a way that's good, obviously. We are more the experts in our field than the principals. A principal cannot be an expert in all these different things. And the flipside of that is that you are free to do whatever. We have pretty good teachers here.”

Another teacher emphasizes that there are no functioning teams:

“With our principal, you can do whatever you want to. You don’t have to be a functioning team. There is no zero sense of team other than what the department itself. He wanted the things to kind of flow nice and smoothly. It was like if my principal likes me, then I was doing enough. It wasn’t necessarily for our
principal to respects what I was doing in the class room. My principal always praised my lessons and never offered constructive feedback. I feel like I could really mess up and he would have still given me good praise. He always focused on the good things.”

Many teachers in the high school believe that curriculum was not a priority of their principal:

“We have a lot of control of our curriculum. We have a lot of choices in what we want to teach. They do not want to change things. At times we take the initiative and testify why we want to change something. Then they will back us up and support us. They also give us the resources. I think, for better and for worse curriculum is not really the principal’s thing. I think his strength is human interaction, and that it was a good thing. It does not have much impact upon the curriculum, but it is what it is. I think the curriculum has lacked leadership.”

As a result, the learning experiences are different for students depending upon which class they’re taking even if it’s the same course:

“The problem with our principal is that he never asked teams to have conversations about curriculum. For example, when you have three teachers teaching the same course, all of the courses have a different curriculum. So, there needs to be some discussions about boundaries, which will allow one teacher to deviate here or there, but we need to agree not to deviate at the core. And those conversations need to be had. With the leadership we've had those conversations were not taking place. There is no question that we need to have some core
values. We need to have some agreement before we take off on our own. I think there is a need to have a conversation about what we teach in our classrooms.”

According to the opinions of teachers at the American Embassy School, principal instructional leadership differed greatly from division to division with the elementary principal showing the strongest instructional leadership. The middle school principal seemed to maintain or implement curriculum with getting the teachers to see the reasoning behind the implementation. No teachers thought that the high school teacher was an instructional leader.

Section 2 – Descriptive Statistics about School Culture

The primary purpose of this section is to provide answers to the second research question:

2. How does the instructional staff view school culture in the American Embassy School’s elementary, middle, and high divisions?

Teachers from the American Embassy School answered questions using the School Culture Survey (see Appendix C for The School Culture Survey). The school culture survey consists of 35 5-point Liekert-scale items where 1 = Strongly Disagree, 2 = Disagree, 3 = Neutral, 4 = Agree, and 5 = Strongly Agree. Higher ratings on the factors of the School Culture Survey demonstrate stronger agreement with the survey statement.

Descriptive Statistics for the School Culture of the American Embassy School

For a response rate of 82%, 126 out of 154 teachers within the American Embassy School responded to the survey. All questions were answered. Table 8 shows the school culture descriptive statistics for the teachers of the American Embassy School.
Table 8 Teacher’s School Culture Survey Descriptive Statistics

<table>
<thead>
<tr>
<th>Factor</th>
<th>N</th>
<th>Mean</th>
<th>Standard Deviation</th>
<th>Min.</th>
<th>Max.</th>
<th>Coefficient of Variation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Collegial Support</td>
<td>126</td>
<td>4.12</td>
<td>.48</td>
<td>2.3</td>
<td>5.0</td>
<td>.12</td>
</tr>
<tr>
<td>Professional</td>
<td>Development</td>
<td>126</td>
<td>4.11</td>
<td>.49</td>
<td>2.8</td>
<td>5.0</td>
</tr>
<tr>
<td>Unity of Purpose</td>
<td>126</td>
<td>4.02</td>
<td>.57</td>
<td>2.3</td>
<td>5.0</td>
<td>.14</td>
</tr>
<tr>
<td>Learning Partnership</td>
<td>126</td>
<td>3.83</td>
<td>.50</td>
<td>2.0</td>
<td>5.0</td>
<td>.13</td>
</tr>
<tr>
<td>Collective Leadership</td>
<td>126</td>
<td>3.83</td>
<td>.67</td>
<td>1.7</td>
<td>5.0</td>
<td>.17</td>
</tr>
<tr>
<td>Teacher Collaboration</td>
<td>126</td>
<td>3.15</td>
<td>.69</td>
<td>1.3</td>
<td>4.8</td>
<td>.22</td>
</tr>
</tbody>
</table>

The school culture factor collegial support had the highest mean (4.12), followed, in descending order, by professional development (4.11), unity of purpose (4.01), collective leadership (3.83), learning partnership (3.83), and teacher collaboration (3.15).

The school culture factor with the greatest coefficient of variation is teacher collaboration (.22), followed, in descending order, collective leadership (.17), unity of purpose (.14), learning partnership (.13), professional development (.12), and collegial support (.12).

Descriptive Statistics for the School Culture of the Elementary School

For a response rate of 83%, 61 out of 74 teachers within the elementary school responded to the survey. All questions were answered. School culture descriptive statistics for the teachers of the elementary school are presented in Table 9:
Table 9 *Elementary School Teacher’s School Culture Survey Descriptive Statistics*

<table>
<thead>
<tr>
<th>Factor</th>
<th>N</th>
<th>Mean</th>
<th>Standard Deviation</th>
<th>Min.</th>
<th>Max.</th>
<th>Coefficient of Variation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Professional Development</td>
<td>61</td>
<td>4.24</td>
<td>.50</td>
<td>2.8</td>
<td>5.0</td>
<td>.12</td>
</tr>
<tr>
<td>Collegial Support</td>
<td>61</td>
<td>4.18</td>
<td>.51</td>
<td>2.5</td>
<td>5.0</td>
<td>.12</td>
</tr>
<tr>
<td>Unity of Purpose</td>
<td>61</td>
<td>4.14</td>
<td>.55</td>
<td>2.3</td>
<td>5.0</td>
<td>.13</td>
</tr>
<tr>
<td>Collective Leadership</td>
<td>61</td>
<td>4.06</td>
<td>.58</td>
<td>2.2</td>
<td>5.0</td>
<td>.14</td>
</tr>
<tr>
<td>Learning Partnership</td>
<td>61</td>
<td>3.95</td>
<td>.48</td>
<td>2.7</td>
<td>5.0</td>
<td>.12</td>
</tr>
<tr>
<td>Teacher Collaboration</td>
<td>61</td>
<td>3.42</td>
<td>.63</td>
<td>1.5</td>
<td>4.8</td>
<td>.18</td>
</tr>
</tbody>
</table>

In the elementary school, the school culture factor professional development had the highest mean (4.24), followed, in descending order, by collegial support (4.18), unity of purpose (4.14), collective leadership (4.06), learning partnership (3.95), and teacher collaboration (3.42).

In the elementary school, the school culture factor with the greatest coefficient of variation is teacher collaboration (.18), followed, in descending order, collective leadership (.14), unity of purpose (.13), collegial support (.12), learning partnership (.12), and professional development (.12).

*Descriptive Statistics for the School Culture of the Middle School*

For a response rate of 97%, 30 out of 31 teachers within the middle school responded to the survey. All questions were answered. School culture descriptive statistics for the teachers of the middle school are presented in Table 10:
Table 10  *Middle School Teacher’s School Culture Survey Descriptive Statistics*

<table>
<thead>
<tr>
<th>Factor</th>
<th>N</th>
<th>Mean</th>
<th>Standard Deviation</th>
<th>Min.</th>
<th>Max.</th>
<th>coefficient of variation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Collegial Support</td>
<td>30</td>
<td>4.13</td>
<td>.38</td>
<td>3.3</td>
<td>5.0</td>
<td>.10</td>
</tr>
<tr>
<td>Professional Development</td>
<td>30</td>
<td>4.01</td>
<td>.50</td>
<td>3.0</td>
<td>5.0</td>
<td>.13</td>
</tr>
<tr>
<td>Unity of Purpose</td>
<td>30</td>
<td>3.95</td>
<td>.67</td>
<td>2.3</td>
<td>5.0</td>
<td>.17</td>
</tr>
<tr>
<td>Collective Leadership</td>
<td>30</td>
<td>3.86</td>
<td>.70</td>
<td>2.0</td>
<td>4.9</td>
<td>.18</td>
</tr>
<tr>
<td>Learning Partnership</td>
<td>30</td>
<td>3.84</td>
<td>.48</td>
<td>2.7</td>
<td>5.0</td>
<td>.13</td>
</tr>
<tr>
<td>Teacher Collaboration</td>
<td>30</td>
<td>3.15</td>
<td>.58</td>
<td>1.5</td>
<td>4.5</td>
<td>.18</td>
</tr>
</tbody>
</table>

In the middle school, the school culture factor collegial support had the highest mean (4.13), followed, in descending order, by professional development (4.01), unity of purpose (3.95), collective leadership (3.86), learning partnership (3.84), and teacher collaboration (3.15).

In the middle school, the school culture factors with the greatest coefficient of variation are collective leadership (.18) and teacher collaboration (.18) followed in descending order by unity of purpose (.17), professional development (.13), learning partnership (.13), and collegial support (.10).

*Descriptive Statistics for the School Culture of the High School*
For a response rate of 73%, 35 out of 48 teachers within the high school responded to the survey. All questions were answered. School culture descriptive statistics for the teachers of the high school are presented in Table 11:

**Table 11  High School Teacher’s School Culture Survey Descriptive Statistics**

<table>
<thead>
<tr>
<th>Factor</th>
<th>N</th>
<th>Mean</th>
<th>Standard Deviation</th>
<th>Min.</th>
<th>Max.</th>
<th>Coefficient of Variation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Professional Development</td>
<td>35</td>
<td>3.97</td>
<td>.46</td>
<td>2.8</td>
<td>5.0</td>
<td>.12</td>
</tr>
<tr>
<td>Collegial Support</td>
<td>35</td>
<td>3.95</td>
<td>.52</td>
<td>2.3</td>
<td>5.0</td>
<td>.13</td>
</tr>
<tr>
<td>Unity of Purpose</td>
<td>35</td>
<td>3.86</td>
<td>.55</td>
<td>2.5</td>
<td>5.0</td>
<td>.14</td>
</tr>
<tr>
<td>Learning Partnership</td>
<td>35</td>
<td>3.62</td>
<td>.54</td>
<td>2.0</td>
<td>4.7</td>
<td>.15</td>
</tr>
<tr>
<td>Collective Leadership</td>
<td>35</td>
<td>3.44</td>
<td>.62</td>
<td>1.7</td>
<td>4.6</td>
<td>.18</td>
</tr>
<tr>
<td>Teacher Collaboration</td>
<td>35</td>
<td>2.68</td>
<td>.69</td>
<td>1.3</td>
<td>4.0</td>
<td>.26</td>
</tr>
</tbody>
</table>

In the high school, the school culture factor professional development had the highest mean (3.97), followed, in descending order, by collegial support (3.95), unity of purpose (3.86), learning partnership (3.62), collective leadership (3.44), and teacher collaboration (2.68).

In the high school, the school culture factor with the greatest coefficient of variation is teacher collaboration (.26), followed, in descending order by, collective leadership (.18), learning partnership (.15), unity of purpose (.14), collegial support (.13), and professional development (.12).
A Comparison of the Mean Scores for Factors of School Culture

The mean score for each factor is presented in Table 12 as a comparison. All factors for the elementary school had the highest mean, followed by the middle school and finally the high school.

Table 12  A Comparison of Mean Scores for Factors of School Culture

<table>
<thead>
<tr>
<th>Factor</th>
<th>AES Mean</th>
<th>Elementary School Mean</th>
<th>Middle School Mean</th>
<th>High School Mean</th>
</tr>
</thead>
<tbody>
<tr>
<td>Collective Leadership</td>
<td>3.83</td>
<td>4.06</td>
<td>3.86</td>
<td>3.44</td>
</tr>
<tr>
<td>Teacher Collaboration</td>
<td>3.15</td>
<td>3.42</td>
<td>3.15</td>
<td>2.68</td>
</tr>
<tr>
<td>Professional Development</td>
<td>4.11</td>
<td>4.24</td>
<td>4.01</td>
<td>3.97</td>
</tr>
<tr>
<td>Unity of Purpose</td>
<td>4.02</td>
<td>4.14</td>
<td>3.95</td>
<td>3.86</td>
</tr>
<tr>
<td>Collegial Support</td>
<td>4.12</td>
<td>4.18</td>
<td>4.13</td>
<td>3.95</td>
</tr>
<tr>
<td>Learning Partnership</td>
<td>3.83</td>
<td>3.95</td>
<td>3.84</td>
<td>3.62</td>
</tr>
</tbody>
</table>

The Mean Difference for Factors of School Culture between the Elementary, Middle and High Schools

A one-way between ANOVA was conducted to compare mean scores on school culture in the elementary, middle and high schools. Table 13, Levene’s Test of Homogeneity, displays that the significance level is greater than .05 in all factors.

Table 13  Levene’s Test of Homogeneity of Variances in Scores

<table>
<thead>
<tr>
<th>Test of Homogeneity of Variances</th>
<th>School Culture Factors</th>
<th>Levene Statistic</th>
<th>df1</th>
<th>df2</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
The results for the ANOVA found in Table 14 show that the significance value is <.05 for all factors except for unity of purpose (.07) and collegial support (.07). The Eta Squared value is considered as a medium effect for the factors of professional development (.07), learning partnership (.07), unity of purpose (.04), and collegial support (.04). There is a considerably larger effect for the factors of teacher collaboration (.20) and collective leadership (.16).

### Table 14  ANOVA and Eta Squared to Show the Effect on Sizes for School Culture

<table>
<thead>
<tr>
<th>School Culture Factors</th>
<th>Sum of Squares</th>
<th>Eta Squared</th>
<th>df</th>
<th>Mean Square</th>
<th>F</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Collective Leadership</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Between Groups</td>
<td>8.72</td>
<td>.16</td>
<td>2</td>
<td>4.36</td>
<td>11.30</td>
<td>.00</td>
</tr>
<tr>
<td>Within Groups</td>
<td>47.46</td>
<td></td>
<td>123</td>
<td>0.39</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>56.18</td>
<td></td>
<td>125</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Teacher Collaboration</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Between Groups</td>
<td>12.186</td>
<td>.20</td>
<td>2</td>
<td>6.09</td>
<td>14.97</td>
<td>.00</td>
</tr>
<tr>
<td>Within Groups</td>
<td>50.05</td>
<td></td>
<td>123</td>
<td>0.41</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>62.24</td>
<td></td>
<td>125</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Professional Development</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Between Groups</td>
<td>2.07</td>
<td>.07</td>
<td>2</td>
<td>1.04</td>
<td>4.40</td>
<td>.01</td>
</tr>
<tr>
<td>Within Groups</td>
<td>28.99</td>
<td></td>
<td>123</td>
<td>0.24</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>31.06</td>
<td></td>
<td>125</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Unity of Purpose</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Between Groups</td>
<td>1.81</td>
<td>.04</td>
<td>2</td>
<td>0.90</td>
<td>2.68</td>
<td>.07</td>
</tr>
<tr>
<td>Within Groups</td>
<td>41.41</td>
<td></td>
<td>123</td>
<td>0.34</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
The mean differences, the standard error, the level of significance, and the 95% confidence interval for difference are compared each factor of school culture. (see Appendix H for the mean differences for factors of school culture).

Significant mean differences between the elementary and high school were the most frequent. Those that reached the significant level were teacher collaboration (0.74), followed by collective leadership (0.63), learning partnership (0.33), and professional development (0.27). Significant differences were found between the middle school and high school in teacher collaboration (0.47) and collective leadership (0.42). No significant differences in school culture were found between the elementary and the middle school.

Interview Results for School Culture

Interviews offer qualitative data to provide an extra dimension when answering the research questions. When describing the school culture in their schools, participants offered an added level of understanding after the survey data was collected. The information, opinions and stories of the participants answer the second question:

2. How does the instructional staff view school culture in the American Embassy School’s elementary, middle, and high divisions?
Elementary school interview and focus group results for school culture.

The general theme that emerged in the elementary school was that teachers viewed their school culture as collaborative and positive. Teachers often talked about the positive and open culture of the elementary school:

“Everything is open and positive. Everything is discussed and everything is posed in a non-threatening or a non-confidential way. People have different ideas, but they are always dealt with a very respectful way. We don’t always agree with each other, but it has never turned nasty. It’s never behind the back, it’s always open and everybody is involved. Everyone one is listened to and everyone is respected. I think this school culture is as good as it gets here.”

Other teachers spoke about how the school’s administration has a collaborative decision making process:

“I think its very warm and caring climate. I think its stems from the fact that the way the administration has the collaborative model of decision making. I think that’s what sets a tone to the culture and trickles down to the teachers, and the parents. It results in a close, kind of cozy feel. I think its one kind of community that is well supported. It just seems like there is always a positive buzz in the air.”

The elementary school is also a place where teachers collaborate with one another to improve student learning:

“I think there is a partnership in this school. I think people are caring and tend to help one another as opposed to just shutting their doors. I don’t think it’s that kind of culture. I think it’s an open door culture where people are working together and learning from each other and being honest.”
Middle school interview and focus group results for school culture.

The general theme that emerged in the middle school was that teachers viewed their school culture as a professional community where there is some collaboration. Some teachers in the middle school talked about the degree of collaboration in their school:

“I would say the culture is collaborative, but not collaborative enough. We collaborate as a department at each grade level, but never across departments or grade levels. There is a feeling that everyone is too busy to work together. I think that's missing the forest for the trees. I think we are missing part of it, because we keep adding too many trees and it's just overwhelming.”

Other teachers focused on the professional feel in the middle school:

“At the middle school, the kids and teachers are great. What stands out, are the school and colleagues. When I go to a faculty meeting, everyone is there and present and participative. I don't see some of the weird dynamics that I see other schools. You feel like everybody is on board and really cares. The level of professionalism is very high.”

High school interview and focus group results for school culture.

The general theme that emerged in the high school was that teachers viewed their school culture as individualistic which often resulted in frustration. Teachers spoke often about how their culture is a place where everyone one is on their own:

“It’s very individualistic, especially compared to the elementary and middle schools. Time is the biggest enemy we have since there is no common planning period. Everyone teaches on their own. There are no common agreements. It
makes some teachers very happy and frustrates others. As a result parents and students often voice frustration.”

Teachers also voiced frustration with the high school:

“...I think one of the frustrating parts for me is that there is no decision making process. We could never come together to come to a decision making process. We have meetings where there is no plan about what the outcomes would be. There is no clear decision making process like are we are going to reach consensus or who is going to make decisions. Our principal often feels that we need to reach consensus since he wants everyone to be happy. As a result, no one was happy. There was never a finishing point. Everybody would meet on it again and again and again, and it would still be no decision made. This had a negative impact on culture and morale. Everybody became frustrated.”

In summary, teachers described the elementary culture as positive and collaborative, while the high school was described as the opposite: individualistic and frustrating. The middle school seemed to be somewhere in between.

Section 3 – Correlational Relationships

The primary purpose of this section is to provide answers to the third research question:

3. What is the relationship between the factors of principal instructional leadership and the factors of school culture?

Collective Correlations for the American Embassy School.

Pearson Product Moment Correlation Coefficient was calculated for the relationships between the factors of instructional leadership using the Principal
Instructional Rating Management Scale and the factors of school culture using the School Culture Survey. Preliminary analyses were conducted to make sure that there were no violations of linearity, normality, and homoscedasticity. Table 15 shows the correlation matrix for the Correlations.

**Table 15  American Embassy School Teacher Correlation Relationships:**

**Instructional Leadership and School Culture Excluding External Factors**

<table>
<thead>
<tr>
<th></th>
<th>Collective Leadership</th>
<th>Teacher Collaboration</th>
<th>Prof. Development</th>
<th>Unity of Purpose</th>
<th>Collegial Support</th>
<th>Learning Partnership</th>
</tr>
</thead>
<tbody>
<tr>
<td>Frame the School Goals</td>
<td>.65**</td>
<td>.51**</td>
<td>.38**</td>
<td>.47**</td>
<td>.41**</td>
<td>.47**</td>
</tr>
<tr>
<td>Communicate the School Goals</td>
<td>.66**</td>
<td>.48**</td>
<td>.41**</td>
<td>.52**</td>
<td>.42**</td>
<td>.45**</td>
</tr>
<tr>
<td>Supervise &amp; evaluate instruction</td>
<td>.54**</td>
<td>.44**</td>
<td>.33**</td>
<td>.37**</td>
<td>.25**</td>
<td>.28**</td>
</tr>
<tr>
<td>Coordinate the curriculum</td>
<td>.62**</td>
<td>.51**</td>
<td>.43**</td>
<td>.45**</td>
<td>.40**</td>
<td>.46**</td>
</tr>
<tr>
<td>Monitor student progress</td>
<td>.49**</td>
<td>.33**</td>
<td>.28**</td>
<td>.27**</td>
<td>.34**</td>
<td>.28**</td>
</tr>
<tr>
<td>Protect instructional time</td>
<td>.36**</td>
<td>.14</td>
<td>.18*</td>
<td>.25**</td>
<td>.21*</td>
<td>.23**</td>
</tr>
<tr>
<td>Maintain high visibility</td>
<td>.52**</td>
<td>.46**</td>
<td>.31**</td>
<td>.33</td>
<td>.27</td>
<td>.20*</td>
</tr>
<tr>
<td>Provide incentives for teachers</td>
<td>.61**</td>
<td>.44**</td>
<td>.32**</td>
<td>.36</td>
<td>.28</td>
<td>.30</td>
</tr>
<tr>
<td>Provide incentives for learning</td>
<td>.22*</td>
<td>.15</td>
<td>.06</td>
<td>.15</td>
<td>.05</td>
<td>-.02</td>
</tr>
</tbody>
</table>

** p < .01 (2-tailed)
* p < .05 (2-tailed)
The principal instructional leadership factor, frame the school goals, had significant correlational relationships with all six factors of school culture. Strong significant relationships were with collective leadership ($r = .65$, $p < .01$), and teacher collaboration ($r = .51$, $p < .01$), moderate significant correlations were with learning partnership ($r = .47$, $p < .01$), unity of purpose ($r = .47$, $p < .01$), collegial support ($r = .41$, $p < .01$), and professional development ($r = .38$, $p < .01$).

The principal instructional leadership factor, communicate the school goals, had significant correlational relationships with all six factors of school culture. Communicate the school goals had a strong correlation with collective leadership ($r = .66$, $p < .01$), and unity of purpose ($r = .52$, $p < .01$). Moderate significant correlations were with teacher collaboration ($r = .48$, $p < .01$), learning partnership ($r = .45$, $p < .01$), collegial support ($r = .42$, $p < .01$), and professional development ($r = .41$, $p < .01$).

The principal instructional leadership factor, supervise and evaluate instruction, had significant correlational relationships with all six factors of school culture. A strong significant relationship was found with collective leadership ($r = .54$, $p < .01$). Moderate significant correlations were with teacher collaboration ($r = .44$, $p < .01$), unity of purpose ($r = .37$, $p < .01$), and professional development ($r = .33$, $p < .01$). Small significant correlations were found with learning partnership ($r = .28$, $p < .01$), and collegial support ($r = .25$, $p < .01$).

The principal instructional leadership factor, coordinate the curriculum, had significant correlational relationships with all six factors of school culture. A strong significant relationship was found with collective leadership ($r = .62$, $p < .01$) and teacher collaboration ($r = .51$, $p < .01$), Moderate significant correlations were with learning...
partnership (r = .46, p < .01), unity of purpose (r = .45, p < .01), and professional development (r = .43, p < .01), and collegial support (r = .40, p < .01).

The principal instructional leadership factor, monitor student progress, had significant correlational relationships with all six factors of school culture. Moderate significant correlations were with collective leadership (r = .49, p < .01), collegial support (r = .34, p < .01), and teacher collaboration (r = .33, p < .01). Small significant correlations were found with professional development (r = .33, p < .01), learning partnership (r = .28, p < .01), and unity of purpose (r = .27, p < .01).

The principal instructional leadership factor, protect instructional time, had significant correlational relationships with five factors of school culture. A moderate significant correlation was found with collective leadership (r = .36, p < .01). Small significant correlations were found with unity of purpose (r = .25, p < .01), learning partnership (r = .23, p < .01), collegial support (r = .21, p < .05), and professional development (r = .18, p < .05).

The principal instructional leadership factor, maintain high visibility, had significant correlational relationships with four factors of school culture. A strong significant relationship was found with collective leadership (r = .52, p < .01). Moderate significant correlations were found with teacher collaboration (r = .46, p < .01), and professional development (r = .31, p < .01). Small significant correlations were found with learning partnership (r = .20, p < .05).

The principal instructional leadership factor, provide incentives for teachers, had significant correlational relationships with three factors of school culture. A strong significant relationship was found with collective leadership (r = .61, p < .01). Moderate
significant correlations were found with teacher collaboration (r = .44, p < .01), and professional development (r = .32, p < .01).

The principal instructional leadership factor, provide incentives for learning, had a significant correlational relationship with one factor of school culture. A small significant correlations was found with collective leadership (r = .22, p < .05).

*Collective Correlations for the Elementary School.*

Pearson Product Moment Correlation Coefficient was calculated for the relationships between the factors of instructional leadership using the Principal Instructional Rating Management Scale and the factors of school culture using the School Culture Survey. Preliminary analyses were conducted to make sure that there were no violations of linearity, normality, and homoscedasticity. For the elementary school, table 16 shows the correlation matrix for the correlations.

**Table 16 Elementary Teacher Correlation Relationships: Instructional Leadership and School Culture Excluding External Factors**

<table>
<thead>
<tr>
<th></th>
<th>Collective Leadership</th>
<th>Teacher Collaboration</th>
<th>Professional Development</th>
<th>Unity of Purpose</th>
<th>Collegial Support</th>
<th>Learning Partnership</th>
</tr>
</thead>
<tbody>
<tr>
<td>Frame the School Goals</td>
<td>.57**</td>
<td>.39**</td>
<td>.35**</td>
<td>.52**</td>
<td>.49**</td>
<td>.36**</td>
</tr>
<tr>
<td>Communicate the School Goals</td>
<td>.62**</td>
<td>.30*</td>
<td>.31*</td>
<td>.55**</td>
<td>.40**</td>
<td>.31*</td>
</tr>
<tr>
<td>Supervise &amp; evaluate instruction</td>
<td>.61**</td>
<td>.45**</td>
<td>.42**</td>
<td>.48**</td>
<td>.37**</td>
<td>.36**</td>
</tr>
<tr>
<td>Coordinate the curriculum</td>
<td>.52**</td>
<td>.45**</td>
<td>.44**</td>
<td>.47**</td>
<td>.51**</td>
<td>.52**</td>
</tr>
</tbody>
</table>
Monitor student progress  
<table>
<thead>
<tr>
<th></th>
<th>.37**</th>
<th>.26*</th>
<th>.21</th>
<th>.23</th>
<th>.29*</th>
<th>.31*</th>
</tr>
</thead>
</table>

Protect instructional time  
|                    | .28*  | .19  | .23 | .32**| .16  | .28* |

Maintain high visibility  
|                    | .46** | .36**| .27*| .35**| .14  | .10  |

Provide incentives for teachers  
|                    | .51** | .27* | .27*| .34**| .29* | .19  |

Provide incentives for learning  
|                    | .34   | .32  | .15 | .21  | .07  | .05  |

** p < .01 (2-tailed)  
* p < .05 (2-tailed)

In the elementary school, the principal instructional leadership factor, frame the school goals, had significant correlational relationships with all six factors of school culture. Strong significant relationships were with collective leadership (r = .57, p < .01), and unity of purpose (r = .52, p < .01). Moderate significant correlations were with collegial support (r = .49, p < .01), teacher collaboration (r = .39, p < .01) learning partnership (r = .36, p < .01), and professional development (r = .35, p < .01),

The principal instructional leadership factor, communicate the school goals, had significant correlational relationships with all six factors of school culture. Communicate the school goals had a strong correlation with collective leadership (r = .62, p < .01), and unity of purpose (r = .55, p < .01). Moderate significant correlations were with collegial support (r = .40, p < .01), learning partnership (r = .31, p < .05), professional development (r = .31, p < .05), and teacher collaboration (r = .30, p < .05),

The principal instructional leadership factor, supervise & evaluate instruction, had significant correlational relationships with all six factors of school culture. A strong significant relationship was found with collective leadership (r = .61, p < .01). Moderate
significant correlations were with unity of purpose ($r = .48$, $p < .01$), teacher collaboration ($r = .45$, $p < .01$), and professional development ($r = .42$, $p < .01$), collegial support ($r = .37$, $p < .01$), and learning partnership ($r = .36$, $p < .01$).

The principal instructional leadership factor, coordinate the curriculum, had significant correlational relationships with all six factors of school culture. A strong significant relationship was found with collective leadership ($r = .52$, $p < .01$) learning partnership ($r = .52$, $p < .01$), and collegial support ($r = .51$, $p < .01$). Moderate significant correlations were with unity of purpose ($r = .47$, $p < .01$), teacher collaboration ($r = .45$, $p < .01$), and professional development ($r = .44$, $p < .01$).

The principal instructional leadership factor, monitor student progress, had significant correlational relationships with four factors of school culture. Moderate significant correlations were with collective leadership ($r = .37$, $p < .01$), learning partnership ($r = .31$, $p < .05$), collegial support ($r = .29$, $p < .05$), and teacher collaboration ($r = .26$, $p < .05$).

The principal instructional leadership factor, protect instructional time, had significant correlational relationships with three factors of school culture. A moderate significant correlation was found with unity of purpose ($r = .32$, $p < .01$). Small significant correlations were found with learning partnership ($r = .28$, $p < .01$) and collective leadership ($r = .28$, $p < .01$).

The principal instructional leadership factor, maintain high visibility, had significant correlational relationships with four factors of school culture. Moderate significant correlations were found with collective leadership ($r = .46$, $p < .01$), teacher...
collaboration (r = .36, p < .01). Small significant correlations were found professional
development (r = .27, p < .05).

The principal instructional leadership factor, provide incentives for teachers, had
significant correlational relationships with five factors of school culture. A strong
significant relationship was found with collective leadership (r = .51, p < .01). A
moderate significant correlation was found with unity of purpose (r = .34, p < .01). Small
significant correlations were found with collegial support (r = .29, p < .05), teacher
collaboration (r = .27, p < .05), and professional development (r = .27, p < .05).

The principal instructional leadership factor, provide incentives for learning, had
no significant correlational relationships any of the factor of school culture.

Collective Correlations for the Middle School.

Pearson Product Moment Correlation Coefficient was calculated for the
relationships between the factors of instructional leadership using the Principal
Instructional Rating Management Scale and the factors of school culture using the School
Culture Survey. Preliminary analyses were conducted to make sure that there were no
violations of linearity, normality, and homoscedasticity. For the middle school, table 17
shows the correlation matrix for the correlations.

Table 17  Middle School Teacher Correlation Relationships: Instructional
Leadership and School Culture Excluding External Factors

<table>
<thead>
<tr>
<th>Collective Leadership</th>
<th>Teacher Collaboration</th>
<th>Prof. Development</th>
<th>Unity of Purpose</th>
<th>Collegial Support</th>
<th>Learning Partnership</th>
</tr>
</thead>
<tbody>
<tr>
<td>Frame the School Goals</td>
<td>.73**</td>
<td>.57**</td>
<td>.18</td>
<td>.35</td>
<td>.17</td>
</tr>
</tbody>
</table>
Communicate the School Goals  .61**  .53**  .41*  .35  .29  .43*
Supervise & evaluate instruction  .35  .20  -.33  -.00  -.11  -.19
Coordinate the curriculum  .57**  .60**  .29  .37  .17  .17
Monitor student progress  .46*  .59**  .15  .17  .16  .12
Protect instructional time  .17  -.22  -.04  .30  .27  .16
Maintain high visibility  .42*  .40*  .18  .13  .03  .14
Provide incentives for teachers  .53**  .41*  -.06  .14  .03  -.08
Provide incentives for learning  .42*  .27  .14  .16  -.16  .00

** p < .01 (2-tailed)
* p < .05 (2-tailed)

The principal instructional leadership factor, frame the school goals, had significant correlational relationships with two factors of school culture. Strong significant relationships were with collective leadership (r = .73, p < .01), and teacher collaboration (r = .57, p < .01).

The principal instructional leadership factor, communicate the school goals, had significant correlational relationships with four factors of school culture. Communicate the school goals had a strong correlation with collective leadership (r = .61, p < .01), and teacher collaboration (r = .57, p < .01). Moderate significant correlations were with learning partnership (r = .43, p < .01), and professional development (r = .41, p < .05).

The principal instructional leadership factor, supervise & evaluate instruction, had no significant correlational relationships with any factors of school culture.
The principal instructional leadership factor, coordinate the curriculum, had significant correlational relationships with two factors of school culture. Strong significant relationships were found with collective leadership ($r = .57$, $p < .01$) and teacher collaboration ($r = .60$, $p < .01$).

The principal instructional leadership factor, monitor student progress, had significant correlational relationships with two factors of school culture. A strong significant relationship was found with teacher collaboration ($r = .59$, $p < .01$). A medium significant correlation was found with collective leadership ($r = .46$, $p < .05$).

The principal instructional leadership factor, protect instructional time, had no significant correlational relationships with any factors of school culture.

The principal instructional leadership factor, maintain high visibility, had significant correlational relationships with two factors of school culture. Moderate significant correlations were found with collective leadership ($r = .42$, $p < .05$), and teacher collaboration ($r = .40$, $p < .05$).

The principal instructional leadership factor, provide incentives for teachers, had significant correlational relationships with two factors of school culture. A strong significant relationship was found with collective leadership ($r = .53$, $p < .01$). A moderate significant correlation was found with teacher collaboration ($r = .41$, $p < .05$).

The principal instructional leadership factor, provide incentives for learning, had a significant correlational relationship with one factor of school culture. A moderate significant correlations was found with collective leadership ($r = .42$, $p < .05$).

*Collective Correlations for the High School.*
Pearson Product Moment Correlation Coefficient was calculated for the relationships between the factors of instructional leadership using the Principal Instructional Rating Management Scale and the factors of school culture using the School Culture Survey. Preliminary analyses were conducted to make sure that there were no violations of linearity, normality, and homoscedasticity. For the high school, table 18 shows the correlation matrix for the Correlations

Table 18  **High School Teacher Correlation Relationships: Instructional Leadership and School Culture Excluding External Factors**

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Frame the School Goals</td>
<td>.46**</td>
<td>.26</td>
<td>.29</td>
<td>.32*</td>
<td>.29</td>
<td>.54**</td>
</tr>
<tr>
<td>Communicate the School Goals</td>
<td>.55**</td>
<td>.36*</td>
<td>.35*</td>
<td>.45**</td>
<td>.39*</td>
<td>.46**</td>
</tr>
<tr>
<td>Supervise &amp; evaluate instruction</td>
<td>.33*</td>
<td>.25</td>
<td>.35*</td>
<td>.29</td>
<td>.09</td>
<td>.21</td>
</tr>
<tr>
<td>Coordinate the curriculum</td>
<td>.49**</td>
<td>.16</td>
<td>.32*</td>
<td>.30</td>
<td>.27</td>
<td>.38*</td>
</tr>
<tr>
<td>Monitor student progress</td>
<td>.42**</td>
<td>.01</td>
<td>.30</td>
<td>.21</td>
<td>.35**</td>
<td>.13</td>
</tr>
<tr>
<td>Protect instructional time</td>
<td>.39*</td>
<td>.00</td>
<td>.16</td>
<td>.00</td>
<td>.14</td>
<td>.06</td>
</tr>
<tr>
<td>Maintain high visibility</td>
<td>.46**</td>
<td>.42**</td>
<td>.33*</td>
<td>.25</td>
<td>.46**</td>
<td>.18</td>
</tr>
<tr>
<td>Provide incentives for teachers</td>
<td>.51**</td>
<td>.30</td>
<td>.38*</td>
<td>.30</td>
<td>.22</td>
<td>.41**</td>
</tr>
<tr>
<td>Provide incentives for learning</td>
<td>.45**</td>
<td>.36*</td>
<td>.28</td>
<td>.40*</td>
<td>.30</td>
<td>.14</td>
</tr>
</tbody>
</table>
The principal instructional leadership factor, frame the school goals, had significant correlational relationships with three factors of school culture. A strong significant relationship was found with learning partnership ($r = .54, p < .01$). Moderate significant correlations were with collective leadership ($r = .46, p < .01$), and unity of purpose ($r = .32, p < .05$).

The principal instructional leadership factor, communicate the school goals, had significant correlational relationships with all six factors of school culture. Communicate the school goals had a strong correlation with collective leadership ($r = .55, p < .01$). Moderate significant correlations were with learning partnership ($r = .46, p < .01$), unity of purpose ($r = .45, p < .01$), collegial support ($r = .39, p < .05$), teacher collaboration ($r = .36, p < .05$), and professional development ($r = .35, p < .05$).

The principal instructional leadership factor, supervise & evaluate instruction, had significant correlational relationships with two factors of school culture. Moderate significant correlations were with professional development ($r = .35, p < .05$), and collective leadership ($r = .33, p < .05$).

The principal instructional leadership factor, coordinate the curriculum, had significant correlational relationships with three factors of school culture. Moderate significant correlations were with collective leadership ($r = .49, p < .01$), learning partnership ($r = .38, p < .05$), and professional development ($r = .32, p < .05$).

The principal instructional leadership factor, monitor student progress, had significant correlational relationships with two factors of school culture. Moderate
significant correlations were with collective leadership ($r = .42, p < .01$), and collegial support ($r = .35, p < .01$).

The principal instructional leadership factor, protect instructional time, had a significant correlational relationships with one factor of school culture. A moderate significant correlation was found with collective leadership ($r = .39, p < .05$).

The principal instructional leadership factor, maintain high visibility, had significant correlational relationships with four factors of school culture. Moderate significant correlations were found with collective leadership ($r = .46, p < .01$), collegial support ($r = .46, p < .01$), teacher collaboration ($r = .42, p < .01$), and professional development ($r = .33, p < .05$).

The principal instructional leadership factor, provide incentives for teachers, had significant correlational relationships with three factors of school culture. A strong significant relationship was found with collective leadership ($r = .51, p < .01$). Moderate significant correlations were found with learning partnership ($r = .41, p < .01$), and professional development ($r = .38, p < .05$).

The principal instructional leadership factor, provide incentives for learning, had a significant correlational relationship with three factors of school culture. Moderate significant correlations were found with collective leadership ($r = .45, p < .01$), unity of purpose ($r = .45, p < .05$), and teacher collaboration ($r = .45, p < .05$).

*Interview Results for the Relationship between Principal Instructional Leadership and School Culture*

Interviews offer qualitative data to provide an extra dimension when answering the research questions. When describing the relationship between Principal Instructional
Leadership and school culture in their school, participants offered an added level of understanding after the survey data was collected. The information, opinions and stories of the participants answer the third question:

3. What is the relationship between principal instructional leadership and school culture?

*Elementary school interview and focus group results for the relationship between principal instructional leadership and school culture.*

The general theme that emerged in the elementary school was that teachers viewed their principal as collaborative and understanding. This made teachers feel safe and trusted:

“It just feels like my principal lets teachers know that they are supported. You don’t get the feeling she is there to judge you. She is there just to help you, and she doesn’t expect you to know everything, or be able to do everything. I never felt like I always have to have the answers with her. She made it a safe place. So if you don’t know how to do something, there is no real shame in that. She has made it a safe environment so it’s okay to ask questions. Questions are encouraged. And I think the team time is really important. I really don’t know if she is responsible for that, but I imagined she is. Having time with your teammates is really important, so having the team time really has impacted my instructions the most. As a result, things are happy and collaborative.”

Teachers stressed how important it is for the elementary principal to fully understand the curriculum. This can lead to a culture of collaboration and trust:
“Our principal makes a point to be knowledgeable about the curriculum and instruction. One example is the Lucy Calkins resource for writing instruction. I’m impressed she took it home and read it, because not all leaders do that, then we have a conversation about whether or not we want to move forward, with this particular resource, I feel confident knowing that she understands it and has the background knowledge, in order to make a best practice decision. She delegates and lets other leaders help make decisions on curriculum but she also makes sure that she is well informed. This leads to very trusting relationships in the school.”

There is also a sense that an instructional leader knows best practice for kids and will support their decisions:

“I think there are teachers who collaborate and I think the principal manages to bring out the best in everyone. I think there is a positive school culture. She has managed to instill a culture of learning and we want the kids to learn and faculty to learn. I think that the way we do the things around here is we stop and think what’s best for kids.”

Middle school interview and focus group results for the relationship between principal instructional leadership and school culture.

The general theme that emerged in the middle school was that teachers viewed their principal as someone who does not care enough about curriculum to be current with best practice. Teachers also felt that this resulted in micro-management and created a lack of trust.

“I don’t think our principal has ever initiated new curriculum based on best practice, but she is a great proponent if anything comes down through pipe. I
think she is not doing research to learn about best practice. Her practices are all based upon school wide implementations: common assessments, Atlas Rubicon, and things keep coming down the pipe and it’s disappointing after being with an instructional leader who said you guys might try this or there is this awesome way we could go. Now this is very much micro management. The principal wants to be in all team meetings, department meetings; she wants her body to be there, so I think we’ve got some real insecurity and some distrust. It’s too bad that she can’t trust her teachers to collaborate to come out with best results.”

Teachers viewed their principal as a micro-manager who does not trust teachers.

“I think it’s just basically personality and it’s the same with teaching. You can have all the knowledge in the world, but if you can’t inspire the kids, if you can’t really share your knowledge with kids, the kids pick up it and they get bored. A good teacher is half actor and same with the principal. I think if you are good at inspiring the faculty and if you are good at inspiring the kids, you need to have that personality and that energy to make it happen and people can pick up on it if its not there. It results in a feeling of being stuck in neutral.”

Some see the principal as over extended because they don’t know what their priorities are with the curriculum.

“Our principal needs to step back a little bit and think and choose what you really want to be involved in. I feel like sometimes I am not sure why our principle is at a certain meeting. I’m not sure what her role is in a piece seems like there's some micromanagement. And there are other times, I think -- I wish you were more involved in this administrative level. What are the things that she feels like she
needs you directly involved in? In one of the things that she can let her team and
department heads and teachers go ahead and just do on their own. And she should
say, I just trust you. It seems like there is kind of a lack of trust. So as a result,
there is a low morale over micromanagement.”

*High school interview and focus group results for the relationship between
principal instructional leadership and school culture.*

The general theme that emerged in the high school was that teachers viewed their
principal someone who does not know about curriculum and what is going on in their
classrooms:

“As I said it was kind of working in isolation. We are on our own island. Teachers
do not help each other. They tend to compete against each other and protect their
turf. Teachers rarely have time to talk with each other since we have no common
planning time or even a common place to eat lunch.”

The principal has no influence on curriculum and student learning:

“Our principal does not improve instruction and curriculum and learning. I
would've liked him to be in my room more of the time. In some ways, he does
not know what is going on a classroom on a day-to-day basis. As long as
everyone looks happy, our principal’s happy.”

High school teachers talk about a need to know more about curriculum:

“There is no curriculum guide or a map. As a new teacher, it's kind of hard to
know what to teach. Not necessarily their skills or knowledge base, but I thought
there needed to be some accountability like the level of proficiency and grades. I
did not feel that there was any guidance from leadership about the curriculum and
that’s frustrating for everyone. There are lots of holes that need to be worked on but no one was worried about them being fixed.”

Section 4 – Influence of Instructional Leadership on School Culture

The primary purpose of this section is to provide more in depth answers the fourth research question:

4. What is the influence of instructional leadership on school culture?

For the purpose of the regressions in this section, the scales from the Principal Instructional Management Rating Scale and the School Culture Survey were combined into factors and whole scales. Whole scales were used for the dependent variable.

Multiple regression analysis was used to determine the extent to which the 9 factors of instructional leadership influence the dependent factor, school culture within school culture. R squared = .53 indicates that the nine factors together account for 53% of the variance in collective leadership. (Table 19) F = 13.41, p <.01 is used to show statistical significance in Table 20.

Table 19  Multiple Regression – Relationship between Factors of Instructional Leadership and the School Culture Combined Scale

<table>
<thead>
<tr>
<th>Independent Variable</th>
<th>R</th>
<th>R Square</th>
<th>Adjusted R Square</th>
<th>Std. Error of the Estimate</th>
</tr>
</thead>
<tbody>
<tr>
<td>Instructional Leadership</td>
<td>.73</td>
<td>.53</td>
<td>.47</td>
<td>.31</td>
</tr>
</tbody>
</table>

Table 20  ANOVA Results for the Statistical Significance of the Multiple Regression
Multiple regression analysis was used to determine the extent to which the nine factors of instructional leadership influence the dependent factor, collective leadership, within school culture. R squared = .56 indicates that the nine factors together account for 56% of the variance in collective leadership. (Table 21) F = 15.08, p < .01 is used to show statistical significance (Table 22).

### Table 21  
**Multiple Regression – Relationship between Factors of Instructional Leadership and the School Culture Factor of Collective Leadership**

<table>
<thead>
<tr>
<th>Independent Variable</th>
<th>R</th>
<th>R Square</th>
<th>Adjusted R Square</th>
<th>Std. Error of Estimate</th>
</tr>
</thead>
<tbody>
<tr>
<td>Instructional Leadership</td>
<td>.75</td>
<td>.56</td>
<td>.52</td>
<td>.46</td>
</tr>
</tbody>
</table>

### Table 22  
**ANOVA Results for the Statistical Significance of the Multiple Regression**

<table>
<thead>
<tr>
<th>Sum of Squares</th>
<th>df</th>
<th>Mean Square</th>
<th>F</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Regression</td>
<td>32.08</td>
<td>10</td>
<td>3.21</td>
<td>15.08</td>
</tr>
<tr>
<td>Residual</td>
<td>25.74</td>
<td>121</td>
<td>.213</td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>51.82</td>
<td>131</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
A multiple regression analysis was conducted to determine the amount of unique variance in the dependent factor, collective leadership, for each of the independent instructional leadership factors. The 9 factors of instructional leadership (frame the school goals, communicate the school goals, supervise and evaluate instruction, coordinate the curriculum, monitor student progress, protect instructional time, maintain high visibility, provide incentives for teachers, and provide incentives for learning) collectively accounted for 56% of the variance in collective leadership. The overall F was significant (.00); thus a predictive relationship was found.

*Teacher Collaboration*

Multiple regression analysis was used to determine the extent to which the 9 factors of instructional leadership were related to the dependent factor, teacher collaboration, within school culture. R squared = .35 indicates that the ten factors together account for 35% of the variance in teacher collaboration. (Table 23) F = 6.63, p <.01 is used to show statistical significance (Table 24).

**Table 23  Multiple Regression – Relation between Factors of Instructional Leadership and the School Culture Factor of Teacher Collaboration**

<table>
<thead>
<tr>
<th>Independent Variable</th>
<th>R</th>
<th>R Square</th>
<th>Adjusted R Square</th>
<th>Std. Error of the Estimate</th>
</tr>
</thead>
<tbody>
<tr>
<td>Instructional Leadership</td>
<td>.60</td>
<td>.35</td>
<td>.30</td>
<td>.58</td>
</tr>
</tbody>
</table>

**Table 24  ANOVA Results for the Statistical Significance of the Multiple Regression**
A multiple regression analysis was conducted to determine the amount of unique variance in the dependent factor teacher collaboration for each of the independent instructional leadership factors. The 9 factors of instructional leadership (frame the school goals, communicate the school goals, supervise and evaluate instruction, coordinate the curriculum, monitor student progress, protect instructional time, maintain high visibility, provide incentives for teachers, and provide incentives for learning) collectively accounted for 35% of the variance in teacher collaboration. The overall F was significant (.00); thus a predictive relationship was found.

**Professional Development**

Multiple regression analysis was used to determine the extent to which the 9 factors of instructional leadership were related to the dependent factor of professional development within school culture. R squared = .27 indicates that the ten factors together account for 27% of the variance in professional development. (Table 25) F = 4.37, p < .01 is used to show statistical significance (Table 26).

**Table 25 Multiple Regression – Relation between Factors of Instructional Leadership and the School Culture Factor of Professional Development**

<table>
<thead>
<tr>
<th></th>
<th>Sum of Squares</th>
<th>df</th>
<th>Mean Square</th>
<th>F</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Regression</td>
<td>22.03</td>
<td>10</td>
<td>2.20</td>
<td>6.63</td>
<td>.000</td>
</tr>
<tr>
<td>Residual</td>
<td>40.23</td>
<td>121</td>
<td>.33</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>62.26</td>
<td>131</td>
<td>.33</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Dependent Variable: Professional Development
<table>
<thead>
<tr>
<th>Independent Variable</th>
<th>R</th>
<th>R Square</th>
<th>Adjusted R Square</th>
<th>Std. Error of the Estimate</th>
</tr>
</thead>
<tbody>
<tr>
<td>Instructional Leadership</td>
<td>.56</td>
<td>.27</td>
<td>.20</td>
<td>.43</td>
</tr>
</tbody>
</table>

Table 26  Contributing Factors of Instructional Leadership toward Professional Development

<table>
<thead>
<tr>
<th>Sum of Squares</th>
<th>df</th>
<th>Mean Square</th>
<th>F</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Regression</td>
<td>8.24</td>
<td>10</td>
<td>0.82</td>
<td>4.37</td>
</tr>
<tr>
<td>Residual</td>
<td>22.84</td>
<td>121</td>
<td>0.19</td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>31.08</td>
<td>131</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

A multiple regression analysis was conducted to determine the amount of unique variance in the dependent factor, professional development, for each of the independent instructional leadership factors. The 10 factors of instructional leadership (frame the school goals, communicate the school goals, supervise and evaluate instruction, coordinate the curriculum, monitor student progress, protect instructional time, maintain high visibility, provide incentives for teachers, promote professional development, and provide incentives for learning) collectively accounted for 27% of the variance in professional development. The overall $F$ was significant (.00); thus a predictive relationship was found.

Unity of Purpose

Multiple regression analysis was used to determine the extent to which the 9 factors of instructional leadership were related to the dependent factor, unity of purpose, within school culture. $R^2 = .32$ indicates that the ten factors together account for
32% of the variance in professional development. (Table 27) $F = 5.49$, $p < .01$ is used to show statistical significance (Table 28).

**Table 27**  *Multiple Regression – Relation between Factors of Instructional Leadership and the School Culture Factor of Unity of Purpose*

<table>
<thead>
<tr>
<th>Independent Variable</th>
<th>R</th>
<th>R Square</th>
<th>Adjusted R Square</th>
<th>Std. Error of the Estimate</th>
</tr>
</thead>
<tbody>
<tr>
<td>Instructional leadership</td>
<td>.56</td>
<td>.32</td>
<td>.26</td>
<td>.50</td>
</tr>
</tbody>
</table>

**Table 28**  *ANOVA Results for the Statistical Significance of the Multiple Regression*

<table>
<thead>
<tr>
<th>Sum of Squares</th>
<th>df</th>
<th>Mean Square</th>
<th>F</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Regression</td>
<td>13.48</td>
<td>10</td>
<td>1.35</td>
<td>5.49</td>
</tr>
<tr>
<td>Residual</td>
<td>29.74</td>
<td>121</td>
<td>.25</td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>43.22</td>
<td>131</td>
<td>.25</td>
<td></td>
</tr>
</tbody>
</table>

A multiple regression analysis was conducted to determine the amount of unique variance in the dependent factor, unity of purpose, for each of the independent instructional leadership factors. The 9 factors of instructional leadership (frame the school goals, communicate the school goals, supervise and evaluate instruction, coordinate the curriculum, monitor student progress, protect instructional time, maintain high visibility, provide incentives for teachers, and provide incentives for learning) collectively accounted for 32% of the variance in unity of purpose. The overall F was significant (.00); thus a predictive relationship was found.

*Collegial Support*
Multiple regression analysis was used to determine the extent to which the 9 factors of instructional leadership were related to the dependent factor, collegial support, within school culture. R squared = .28 indicates that the ten factors together account for 28% of the variance in collegial support. (Table 29) F = 5.06, p <.01 is used to show statistical significance (Table 30).

**Table 29  **Multiple Regression – Relation between Factors of Instructional Leadership and the School Culture Factor of Collegial support

<table>
<thead>
<tr>
<th>Dependent Variable: Collegial Support</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Independent Variable</strong></td>
</tr>
<tr>
<td>Instructional leadership</td>
</tr>
</tbody>
</table>

**Table 30  **ANOVA Results for the Statistical Significance of the Multiple Regression

<table>
<thead>
<tr>
<th><strong>Sum of Squares</strong></th>
<th><strong>df</strong></th>
<th><strong>Mean Square</strong></th>
<th><strong>F</strong></th>
<th><strong>Sig.</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td>Regression</td>
<td>9.68</td>
<td>10</td>
<td>0.97</td>
<td>5.06</td>
</tr>
<tr>
<td>Residual</td>
<td>23.15</td>
<td>121</td>
<td>.19</td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>32.83</td>
<td>131</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

A multiple regression analysis was conducted to determine the amount of unique variance in the dependent factor, collegial support, for each of the independent instructional leadership factors. The 9 factors of instructional leadership (frame the school goals, communicate the school goals, supervise and evaluate instruction, coordinate the curriculum, monitor student progress, protect instructional time, maintain high visibility, provide incentives for teachers, and provide incentives for learning)
collectively accounted for 28% of the variance in collegial support. The overall F was significant (.00); thus a predictive relationship was found.

Learning Partnership

Multiple regression analysis was used to determine the extent to which the 9 factors of instructional leadership were related to the dependent factor, learning partnership within school culture. R squared = .32 indicates that the ten factors together account for 32% of the variance in professional development. (Table 31) F = 5.49, p < .01 is used to show statistical significance (Table 32).

Table 31  Multiple Regression – Relation between Factors of Instructional Leadership and the School Culture Factor of Learning Partnership

<table>
<thead>
<tr>
<th>Independent Variable</th>
<th>R</th>
<th>R Square</th>
<th>Adjusted R Square</th>
<th>Std. Error of the Estimate</th>
</tr>
</thead>
<tbody>
<tr>
<td>Instructional Leadership</td>
<td>.54</td>
<td>.30</td>
<td>.24</td>
<td>.44</td>
</tr>
</tbody>
</table>

Table 32  ANOVA Results for the Statistical Significance of the Multiple Regression

<table>
<thead>
<tr>
<th>Sum of Squares</th>
<th>df</th>
<th>Mean Square</th>
<th>F</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Regression</td>
<td>13.48</td>
<td>10</td>
<td>1.35</td>
<td>5.49</td>
</tr>
<tr>
<td>Residual</td>
<td>29.74</td>
<td>121</td>
<td>.25</td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>43.22</td>
<td>131</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Dependent Variable: School Culture Survey Factor: Learning Partnership

A multiple regression analysis was conducted to determine the amount of unique variance in the dependent factor, learning partnership for each of the independent
instructional leadership factors. The 9 factors of instructional leadership (frame the school goals, communicate the school goals, supervise and evaluate instruction, coordinate the curriculum, monitor student progress, protect instructional time, maintain high visibility, provide incentives for teachers, promote professional development, and provide incentives for learning) collectively accounted for 32% of the variance in learning partnership. The overall F was significant (sig. < .05); thus a predictive relationship was found.

Influences of External Variables

Hierarchical multiple regression was used to measure the influence of instructional leadership upon school culture controlling for the influence of external factors: school division, origin of hire, gender, teaching experience, years teaching at the American Embassy School, years with their current principal, and the highest degree earned. All the scales for instructional leadership and school culture were each combined into their own scale for the regression. These external factors were entered in step 1, explaining 20% of the influence upon school culture. After entering the instructional leadership scale in step 2, the total influence with the external factors is 49%.

For the first step, the external factor, school division (elementary, middle or high school), is the only variable to make a significant unique contribution (Sig. = .00). The magnitudes of the standardized regression coefficients (beta) indicate their importance in predicting the school culture level of coordinate the curriculum. The beta value for the external factor, school division (-.34) indicates that it is the most important external factor influencing the level of learning partnership in school culture. (Table 33)
For the second step, the external factor years teaching at AES (.21) makes a
significant contribution (Sig. = .03). The variable of instructional leadership makes the
greatest significant (Sig. = .03) contribution of .66. (Table 34)

**Table 33** *Multiple Regression – The Influence of External Factors on School Culture*

<table>
<thead>
<tr>
<th>Independent Variables</th>
<th>R</th>
<th>R Square</th>
<th>Adjusted R Square</th>
<th>Std. Error of the Estimate</th>
<th>R Square Change</th>
</tr>
</thead>
<tbody>
<tr>
<td>School Division</td>
<td>.44</td>
<td>.20</td>
<td>.14</td>
<td>.40</td>
<td>.20</td>
</tr>
<tr>
<td>Origin of Hire</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Gender</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Teaching Experience</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Teaching at AES</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Years with Principal</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Highest Degree Earned</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>U.S. Teaching License</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Table 34** *Multiple Regression – The Influence of External Factors and Instructional Leadership on School Culture*

*Leadership on School Culture*

<table>
<thead>
<tr>
<th>Independent Variables</th>
<th>R</th>
<th>R Square</th>
<th>Adjusted R Square</th>
<th>Std. Error of the Estimate</th>
<th>R Square Change</th>
</tr>
</thead>
<tbody>
<tr>
<td>School Division</td>
<td>.70</td>
<td>.49</td>
<td>.45</td>
<td>.32</td>
<td>.30</td>
</tr>
<tr>
<td>Origin of Hire</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Gender</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Teaching Experience</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Teaching at AES</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Years with Principal  
Highest Degree Earned  
U.S. Teaching License  
Instructional Leadership Scale  

Table 35  *Significance of Contributing External Factors towards School Culture*

<table>
<thead>
<tr>
<th>Dependent Variable: School Culture</th>
<th>Model 1</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sum of Squares</td>
<td>df</td>
</tr>
<tr>
<td>Regression</td>
<td>4.39</td>
</tr>
<tr>
<td>Residual</td>
<td>17.88</td>
</tr>
<tr>
<td>Total</td>
<td>22.27</td>
</tr>
</tbody>
</table>

Table 36  *Significance of Contributing Factors of Instructional Leadership and External Factors toward Learning Partnership*

<table>
<thead>
<tr>
<th>Dependent Variable: School Culture</th>
<th>Model 2</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sum of Squares</td>
<td>df</td>
</tr>
<tr>
<td>Regression</td>
<td>10.98</td>
</tr>
<tr>
<td>Residual</td>
<td>911.29</td>
</tr>
<tr>
<td>Total</td>
<td>22.27</td>
</tr>
</tbody>
</table>

Table 37  *Contributing External Factors toward School Culture*
## Table 38 Contributing External Factors and Instructional leadership toward School Culture

<table>
<thead>
<tr>
<th>Model 1</th>
<th>Unstandardized Coefficients</th>
<th>Standardized Coefficients</th>
<th>95% Confidence Interval for B</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>B</td>
<td>Std. Error</td>
<td>Beta</td>
</tr>
<tr>
<td>(Constant)</td>
<td>4.28</td>
<td>.32</td>
<td></td>
</tr>
<tr>
<td>School Division</td>
<td>-1.7</td>
<td>.05</td>
<td>- .34</td>
</tr>
<tr>
<td>Origin of Hire</td>
<td>.01</td>
<td>.06</td>
<td>.02</td>
</tr>
<tr>
<td>Gender</td>
<td>-1.01</td>
<td>.08</td>
<td>- .01</td>
</tr>
<tr>
<td>Teaching Experience</td>
<td>-1.03</td>
<td>.03</td>
<td>-1.0</td>
</tr>
<tr>
<td>Teaching at AES</td>
<td>.03</td>
<td>.03</td>
<td>.13</td>
</tr>
<tr>
<td>Years with Principal</td>
<td>-1.07</td>
<td>.04</td>
<td>-.20</td>
</tr>
<tr>
<td>Highest degree earned</td>
<td>.07</td>
<td>.09</td>
<td>.07</td>
</tr>
<tr>
<td>U.S. Teaching License</td>
<td>-1.09</td>
<td>.08</td>
<td>-.1</td>
</tr>
</tbody>
</table>

Dependent Factor: School Culture Scales

Table 38 Contributing External Factors and Instructional leadership toward School Culture

<table>
<thead>
<tr>
<th>Model 2</th>
<th>Unstandardized Coefficients</th>
<th>Standardized Coefficients</th>
<th>95% Confidence Interval for B</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>B</td>
<td>Std. Error</td>
<td>Beta</td>
</tr>
<tr>
<td>(Constant)</td>
<td>2.50</td>
<td>.34</td>
<td></td>
</tr>
<tr>
<td>School Division</td>
<td>-1.03</td>
<td>.05</td>
<td>-.05</td>
</tr>
<tr>
<td>Origin of Hire</td>
<td>-1.03</td>
<td>.05</td>
<td>-.04</td>
</tr>
<tr>
<td>Gender</td>
<td>-1.05</td>
<td>.07</td>
<td>-.06</td>
</tr>
<tr>
<td>Teaching Experience</td>
<td>-1.01</td>
<td>.02</td>
<td>-.04</td>
</tr>
<tr>
<td>Teaching at AES</td>
<td>.05</td>
<td>.02</td>
<td>.21</td>
</tr>
</tbody>
</table>
Interview Results for How Principal Instructional Leadership Influences School Culture

Interviews provide qualitative data to provide an extra dimension when answering the research questions. When describing the relationship between principal instructional leadership and school culture in their school, participants offered an added level of understanding after the survey data were collected. The information, opinions and stories of the participants provide a more in depth answer for the third research question:

4. What is the influence of instructional leadership on school culture?

Elementary school interview and focus group results for how principal instructional leadership influences school culture

The general theme that emerged in the elementary school was that the principal is that the principal is a great communicator, especially when it comes to the curriculum:

“She finds ways for everyone’s voice to be heard. She doesn’t just implement something and decree that everyone has to do it her way. She goes and talks to people and gets feedback and then makes sure everyone weighs in. She seeks support for initiatives. She looks for feedbacks and then she likes to get everyone on board before going forward.”

Other teachers also feel strongly about her communication and listening skills:
“When people have something they want to teach or they disagree they just go to the principal to talk about it. It’s the openness and I tribute it largely to our principal because she is very open about it and she is very open to discussion. When I didn’t agree with something, I didn’t feel afraid to tell her about it and she listened to me. She said well it’s not going to change. But she listened to me. So it’s very open environment.”

The principal expects teachers to also be good communicators:

“She believes in student achievement, developing a culture where all students can be successful and therefore making sure that all teachers are successful. I think collaboration is important to her and I think she strives to make sure that teams are collaborating so that kids have common outcomes and common instructional experiences. She expects individuals in teams to communicate with each other and models it for teachers.”

The principal also believes in shared leadership to help with communication:

“I think most important thing she does is one have a vision for what she wants to happen. She sets up the system in the structure so that it can happen. She also delegates it out so that the expert or some one who is passionate about it can help move it forward. One example of that are the curriculum committees this year. The people who are leading up those committees are actual teachers who are aspiring to be leaders themselves and are passionate in those subject areas. I think that’s smart. It’s teachers who are leading out those committees so when they start a new initiative they know there are also other initiatives out there so that it helps to keep the balance. She doesn’t, let obstacles like money or time to get in the
Many teachers see the principal as a model:

“I think she has a very strong influence on the school culture, because she herself is a strong instructional leader, hardworking, honest, and approachable. So she is all the things that we really want our teachers to be by being the person she is. She is modeling what we want our school culture to be like which is open and inviting with strong instructors.

Most teachers in the elementary school feel the principal is very successful because they understand curriculum listening and communication:

“I would say hands down, she is the most amazing principal I have ever had. I have never met anyone like this principal who understands curriculum, who has a foot in the classroom and if you have a conversation with her it goes so deep. It can be fun and playful, but I think she knows her staff and even when we disagree I feel like she comes from a place I honor and trust and I’m willing to go there with her and I feel we can disagree without being disagreeable. I think because it is a place that is growing and it’s a learning laboratory. I would say with the principal’s leadership the school has improved to the point where I do feel like we are not only working at a wonderful place with great kids and wonderful facilities but we have this amazing leader who teaches me something new every single day.”

Middle school interview and focus group results for how principal instructional leadership influences school culture
The general theme that emerged in the middle school was that the principal was not a good personal communicator and did not understand shared leadership.

“I would say there are too many new initiatives. I feel like there's a lot of juggling going on and occasionally balls are getting dropped. Let's go deep in our conversations about curriculum. I feel like a rock skimmed across the surface. Let's go deep, instead of skimming across everything. Let's go deep with curriculum and activities instead of having the kids be on the surface of everything.”

Teachers feel like their principal needs to make more of an effort to establish relationships and communicate on an individual level:

“I guess I’m just not real crazy about her communication style, If there is some problem somebody should come to me and going to say take care of it instead of getting it in an email. It feels kind of dictator instead of one on one conversation. Half the problem is that we are going too heavy on technology and stuff and relying on emails and it’s becoming less personal. I just don’t think that helps we are not that big in the school we just have thirty or forty teachers but if there is a problem I would like somebody come and talk to me in a collaborative way instead of an email.”

Micro-management instead of shared leadership can also lead to lack of communication:

“As I see it, she has to micromanage instruction and that should not be part of a principles job description. Getting so involved in the minute details instead the larger picture sometimes big tends to get lost. I will give a kind of advice I would give all of us, which is to stop and take time to reflect, then talk instead of
continuing to do do do do do. I think that our principle is a great doer who works very hard. I'm not sure that she even can see larger picture, because she gets lost in the details and fails to communicate personally with the staff.”

High school interview and focus group results for how principal instructional leadership influences school culture

The general theme that emerged in the high school was that the principal did little to lead in the area of curriculum and was not a good communicator:

“With our principal, he did absolute zero to influence instruction and learning. He is not involved curriculum instruction that is normally going on. There was zero influence. He didn’t fight what was coming down but he never did initiate anything. He waited to be told what the next thing he’s supposed to do. He never communicated anything about curriculum to the staff.”

Many teachers witnessed the lack of communication:

“You can look in her daily e-mails like last year, and you can see that the principal’s e-mails were not part of good communications. He was not good at communication. When we came to a faculty meeting did not have an agenda ever. The communication is huge, and I think it needs to be improved. In order to improve the culture, everyone needs to be in the know. There should be no surprises.”

Many teachers desired better leadership in the area of curriculum and better communication:

“I would say from my point of view is that the communication is not done in the building, and not on the curriculum. Our principal was very reactive, and did not
look ahead, especially in the area of curriculum. We need more communication, and we need to be a team. We need to go more in the direction of collaboration and communicating with each other and the administration needs to communicate with us.

The general theme that emerged from all schools was how the principal effectively communicates the curriculum and in other areas. If they were not good at communicating the curriculum, then there was not good communication in the school. This seemed to influence all schools. The principals who excelled at communication, created the most collaborative and positive school cultures.

Summary

The results of the data analysis presented in this chapter explain how teachers at the American Embassy School in New Delhi India view principal instructional leadership and school culture. The analysis also provides an in depth understanding of the relationship and the extent of the relationship between principal instructional leadership and school culture.

An electronic survey comprised of Philip Hallinger’s (1987) Principal Instructional Management Rating Scale, Gruenert’s (1998) School Culture Survey, and demographic information was given to teachers in the elementary, middle and high divisions. Teacher interviews and teacher focus groups provided qualitative data. Three documents, the American Embassy School Profile: 2008-2009, the key results from the Faculty Satisfaction Survey, and the key results from the Parent Satisfaction Survey were also analyzed.
An in-depth analysis of principal instructional leadership in each division was required to answer research question one. In almost all factors, teachers viewed the elementary principal as a strong instructional leader followed by the middle school principal. The high school principal was viewed as a weak instructional leader. All the mean differences were statistically significant between the elementary and high schools. (see Appendix G for all of the mean differences) Table 39 shows the factors with the most significant differences between the elementary and high schools.

Table 39  *Mean Comparisons and Differences for the Elementary, Middle and High Schools*

<table>
<thead>
<tr>
<th>Factor</th>
<th>AES Mean</th>
<th>Elementary School Mean</th>
<th>Middle School Mean</th>
<th>High School Mean</th>
<th>Mean Difference: ES &amp; HS</th>
</tr>
</thead>
<tbody>
<tr>
<td>Coordinate the curriculum</td>
<td>3.45</td>
<td>3.93</td>
<td>3.33</td>
<td>2.72</td>
<td>1.21</td>
</tr>
<tr>
<td>Provide incentives for teachers</td>
<td>3.20</td>
<td>3.65</td>
<td>3.13</td>
<td>2.47</td>
<td>1.18</td>
</tr>
<tr>
<td>Frame the School Goals</td>
<td>3.66</td>
<td>4.07</td>
<td>3.58</td>
<td>3.01</td>
<td>1.05</td>
</tr>
<tr>
<td>Supervise &amp; evaluate instruction</td>
<td>3.41</td>
<td>3.86</td>
<td>3.06</td>
<td>2.93</td>
<td>0.93</td>
</tr>
<tr>
<td>Communicate the School Goals</td>
<td>3.68</td>
<td>3.98</td>
<td>3.63</td>
<td>3.19</td>
<td>0.79</td>
</tr>
</tbody>
</table>

Research question 2 required an in-depth analysis of school culture in each division. All teachers viewed their schools as having a good or strong school culture, but the teachers viewed the elementary school as having the strongest school culture followed
Table 40  A Comparison of Mean Scores and Differences for Factors of School Culture

<table>
<thead>
<tr>
<th>Factor</th>
<th>AES Mean</th>
<th>Elementary School Mean</th>
<th>Middle School Mean</th>
<th>High School Mean</th>
<th>Mean Difference: ES &amp; HS</th>
</tr>
</thead>
<tbody>
<tr>
<td>Teacher Collaboration</td>
<td>3.15</td>
<td>3.42</td>
<td>3.15</td>
<td>2.68</td>
<td>0.74</td>
</tr>
<tr>
<td>Collective Leadership</td>
<td>3.83</td>
<td>4.06</td>
<td>3.86</td>
<td>3.44</td>
<td>0.63</td>
</tr>
<tr>
<td>Learning Partnership</td>
<td>3.83</td>
<td>3.95</td>
<td>3.84</td>
<td>3.62</td>
<td>0.33</td>
</tr>
<tr>
<td>Professional Development</td>
<td>4.11</td>
<td>4.24</td>
<td>4.01</td>
<td>3.97</td>
<td>0.27</td>
</tr>
</tbody>
</table>

Research question 3 explored the relationship between the factors of principal instructional leadership and the factors of school culture by comparing predetermined factors and examining interview and focus group results. The strongest correlational relationships were found in the elementary school with fewer in the middle school and high schools. As a school, The American Embassy School showed strong correlations between instructional leadership and school culture. Table 41 shows the strongest correlations found in the American Embassy School.

Table 41  American Embassy School Teacher Correlation Relationships: Instructional Leadership and School Culture Excluding External Factors
The final question, research question 4, explored the influence of principal instructional leadership on school culture. Tables 42 and 43 summarize the influence instructional leadership and external variables have upon all of school culture and the factors. The largest influence upon school culture is from the combined scales of school culture and the school culture factor of collective leadership.

**Table 42 American Embassy School Teacher Correlation Relationships: Instructional Leadership and School Culture Excluding External Factors**

<table>
<thead>
<tr>
<th>Independent Variable: Instructional Leadership Scale</th>
<th>Collective Leadership</th>
<th>Teacher Collaboration</th>
<th>Prof. Development</th>
<th>Unity of Purpose</th>
<th>Collegial Support</th>
<th>Learning Partnership</th>
</tr>
</thead>
<tbody>
<tr>
<td>Frame the School Goals</td>
<td>.65**</td>
<td>.51**</td>
<td>.38**</td>
<td>.47**</td>
<td>.41**</td>
<td>.47**</td>
</tr>
<tr>
<td>Communicate the School Goals</td>
<td>.66**</td>
<td>.48**</td>
<td>.41**</td>
<td>.52**</td>
<td>.42**</td>
<td>.45**</td>
</tr>
<tr>
<td>Supervise &amp; evaluate instruction</td>
<td>.54**</td>
<td>.44**</td>
<td>.33**</td>
<td>.37**</td>
<td>.25**</td>
<td>.28**</td>
</tr>
<tr>
<td>Coordinate the curriculum</td>
<td>.62**</td>
<td>.51**</td>
<td>.43**</td>
<td>.45**</td>
<td>.40**</td>
<td>.46**</td>
</tr>
<tr>
<td>Monitor student progress</td>
<td>.49**</td>
<td>.33**</td>
<td>.28**</td>
<td>.27**</td>
<td>.34**</td>
<td>.28**</td>
</tr>
</tbody>
</table>

** p < .01 (2-tailed)
* p < .05 (2-tailed)
Table 43 American Embassy School Teacher Correlation Relationships: Instructional Leadership and School Culture Including External Factors

| Factor: Collective Leadership | .73 | .53 | .47 | .31 |
| Factor: Teacher Collaboration | .60 | .35 | .30 | .58 |
| Factor: Unity of Purpose | .56 | .32 | .26 | .50 |
| Factor: Learning Partnership | .54 | .30 | .24 | .44 |
| Factor: Collegial Support | .48 | .28 | .16 | .44 |
| Factor: Professional Development | .56 | .27 | .20 | .43 |

One final result of interest was that the theme of relationships emerged from the interviews and focus groups. In an effort to be an instructional leader, the elementary principal formed relationships with her faculty. The lack of communication and relationships in the other schools was noticeable. Chapter 5 offers more in depth discussion of each question, and gives recommendations for future research.
CHAPTER 5

Summary and Conclusion

To learn, you must want to be taught. – Proverbs 12:1

Introduction

The purpose of this mixed methods case study is to examine the influence of principal instructional leadership on school culture in the American Embassy School in New Delhi, India. The findings of this study indicate that there is a strong relationship between principal instructional leadership and school culture at the American Embassy School. This chapter summarizes and discusses the results and makes suggestions for future research to improve school leadership.

In this case study of the American Embassy School in New Delhi, India, the research examined the principal instructional leadership in the elementary, middle, and high schools and how it influences the culture of each school division. The American Embassy School serves a diverse population of students from over 60 countries. Students attending the school come from families of embassies of many nationalities, missionaries, international aid organizations and international businessmen.

Using both quantitative and qualitative methods, this case study examined principal instructional leadership and school culture in detail. The study analyzes the relationship between principal instructional leadership influences and school culture at the American Embassy School.

Teachers from the elementary, middle and high schools responded to an online survey that combined Hallinger’s (1987) Principal Instructional Management Rating Scale, Gruenert’s (1998) School Culture Survey, and demographic information in April,
2008. Of the 154 teachers in all three divisions, 132 responded for an 86% response rate. To collect further data, 15 interviews and three focus groups were conducted. Teachers were selected at random from a pool of volunteers. During the final phase of the research, three documents were examined: The American Embassy School Profile: 2008-2009, the key results from the Faculty Satisfaction Survey, and the key results from the Parent Satisfaction Survey.

This study was organized around four research questions that were developed to achieve a greater understanding of the relationship between instructional leadership and school culture at the American Embassy School. This mixed methods study focuses on four questions:

1. How does the instructional staff view principal instructional leadership in the American Embassy School’s elementary, middle, and high divisions?

2. How does the instructional staff view school culture in the American Embassy School’s elementary, middle, and high divisions?

3. What is the relationship between the factors of principal instructional leadership and the factors of school culture?

4. What is the influence of instructional leadership on school culture?

A key assumption is that this case study established a strong relationship between instructional principal leadership and a collaborative culture, then it can also be assumed, based on Gruenert’s study and others, (Angelides & Ainscow, 2000; Deal & Peterson, 1999; Elbot & Fulton, 2008; Fullan, 1998, 2007; Glanz, 2006a; Gruenert, 2000, 2005; Hoy, 1997, Marzano, Waters & McNultuy, 2005) that this would result in increased student learning.
Instructional Leadership Findings

Key findings from this study indicate that a principal needs to coordinate the curriculum, communicate their vision, supervise and evaluate instruction, and establish relationships with teachers to be a strong instructional leader. Results from all three schools contributed to this key finding.

Opinions and views of principal instructional leadership differed widely in each division of the American Embassy School. Most teachers in the elementary school considered their principal to be a strong instructional leader, while teachers in the high school did not consider their principal to be an instructional leader. Teachers in the middle school had mixed views.

Findings related to the elementary school, indicate the principal was a very strong instructional leader. Teachers commented that the principal “has a strong knowledge of curriculum, knows what’s happening in classrooms, was approachable, was a great communicator, asked teams to meet often to discuss curriculum, and had a vision for the school and the students.”

In a surprising finding from the elementary school, the instructional leadership factor with the lowest mean score was provides incentives for learning. This factor was significantly lower than the others. In searching for an explanation, the data revealed that the principal of this elementary school disapproves of providing incentives for learning. The principal asks teachers to inspire students to be intrinsically motivated to learn and behave without external incentives. Further study is needed to explore this large
discrepancy between this component of instructional leadership theory and the result from this study.

In the middle school, teachers expressed mixed views about their principal’s instructional leadership. Teachers stated that the middle school principal “keeps curriculum areas very departmentalized, does not have a strong vision for curriculum, and that curriculum is an area of weakness.”

The high school results indicate that the principal was a weak instructional leader. Teachers commented that the high school principal “lacked leadership in the area of curriculum, let teachers teach whatever they wanted to, and never asked teams to collaborate on curriculum or any other component of the school.”

An unanticipated finding suggests that the principal needs to establish personal relationships with their teachers in order to improve instruction and learning. Most teachers commented that the principal’s ability to develop relationships with the staff leads to valuable communication toward a greater understanding and investment in curriculum and instructional practices. This seemed to be a significant factor as instructional leaders shaped school culture.

*School Culture Findings*

For principals to establish a positive and collaborative school culture, results suggest that principals need to have teachers collaborate, share leadership, and offer professional development opportunities. Once again relationships interweave throughout the culture of the school.

In support of this key finding, survey, focus group and interview results, showed differences for school culture in each division. Teachers in the elementary school viewed
their school as having a positive and collaborative culture while once again the middle school had mixed views about their school culture and the high school teachers had the least positive views of school culture. It should be noted that the average mean difference from the surveys showed differences between divisions in school culture were not as significant as the differences in principal instructional leadership between the schools.

A highly collaborative and positive school culture was found in the elementary school. Based upon interview and focus groups, teachers viewed the culture as “warm, positive, open, caring, collaborative, and as good as it gets”. They also emphasized the “cozy feeling of the school and how learning partnerships are valued.”

In the middle school, teachers felt that, “their school is collaborative, but not collaborative enough.” Teachers described the culture as, “caring and professional.”

Based upon the findings, the high school teachers described the culture as individualistic. Teachers stated that they, “often grew frustrated by the lack of collaboration, lack of common curricular agreements and that there was no decision making process.”

*Findings of the Relationship between Instructional Leadership and School Culture*

Numerous and strong relationships were found between many instructional leadership and school culture factors suggesting the importance of principals using an instructional leadership approach. As instructional leaders, principals can create a positive and collaborative school culture. By helping teachers collaborate, instilling collective leadership, and communicating a shared vision, principals can contribute to developing a positive and collaborative school culture.
The strongest relationship between instructional leadership and school culture was found in the elementary school. Table 44 shows that the instructional leadership factors, frame the school goals, communicate the school goals, supervise & evaluate instruction, and coordinate the curriculum had statistically significant correlations with all the factors of school culture.

**Table 44 Elementary Teacher Correlation Relationships: Instructional Leadership and School Culture Excluding External Factors**

<table>
<thead>
<tr>
<th>Collective Leadership</th>
<th>Teacher Collaboration</th>
<th>Professional Development</th>
<th>Unity of Purpose</th>
<th>Collegial Support</th>
<th>Learning Partnership</th>
</tr>
</thead>
<tbody>
<tr>
<td>Frame the School Goals</td>
<td>.57**</td>
<td>.39**</td>
<td>.35**</td>
<td>.52**</td>
<td>.49**</td>
</tr>
<tr>
<td>Communicate the School Goals</td>
<td>.62**</td>
<td>.30*</td>
<td>.31*</td>
<td>.55**</td>
<td>.40**</td>
</tr>
<tr>
<td>Supervise &amp; evaluate instruction</td>
<td>.61**</td>
<td>.45**</td>
<td>.42**</td>
<td>.48**</td>
<td>.37**</td>
</tr>
<tr>
<td>Coordinate the curriculum</td>
<td>.52**</td>
<td>.45**</td>
<td>.44**</td>
<td>.47**</td>
<td>.51**</td>
</tr>
</tbody>
</table>

** p < .01 (2-tailed)
* p < .05 (2-tailed)

Principals may consider providing teachers with frequent common planning and team time, and an atmosphere of life long learning and trusting relationships in order to establish a positive and collaborative school culture.

To solidify this finding further, the results in the high school show that the relationship between principal instructional leadership and school culture was not nearly
as strong as the elementary school results. This is understandable considering that there was little evidence of instructional leadership in the high school, so a relationship would be difficult to forge. Teachers commented that, “they often compete against each other to defend their content, teach in isolation, and have little common planning time. Everyone may look happy, but there are no trusting relationships.”

Findings of the Influence of Instructional Leadership on School Culture

Survey results indicate that instructional leadership has a statistical significant influence upon all factors of school culture. According to the multiple regression analysis, instructional leadership (R square = .56) is a greater predictor of school culture than either the combined external factors (R square = .20) or instructional leadership combined with external factors (R square = .49). In making leadership decisions, principals may want to consider the strong influence instructional leadership has over school culture, especially when compared to the influence of external factors such as years of teaching experience and gender.

As a factor of school culture, collective leadership was most significantly influenced by instructional leadership. The instructional leadership model may result in more shared leadership in schools. When commenting on the factor of collective leadership, teachers in the elementary school found that the principal “makes sure that all teachers are given an opportunity to have their voice heard.” She lets people disagree, but always finds out what they need in order to support new initiatives. In the end, everyone feels like they are part of the leadership and decision making process. Teachers also take leadership roles on the core curriculum committees. Teachers are expected to collaborate at least two times each week and make curriculum the focus of at least one meeting.
addition, teachers often have release days in the elementary school to collaborate on curriculum and student work.

**Strengths of the Study**

A significant strength of the study is the use of mixed methods. The design of this case study triangulates the data from surveys, interviews, focus groups, and a document analysis. After analysis, the quantitative and qualitative data both led to the same results. Both instruments used in the survey have been used multiple times in academic research.

The American Embassy School in New Delhi proved to be an excellent location for a case study of this nature. The principals of each school have significantly different leadership styles which allowed for different results in the same location. As a member of the faculty, the researcher was able to achieve a high return rate (86%) from the electronic survey and gain access to a significant number of faculty for interviews and focus groups.

The case study used two existing survey instruments, the Principal Instructional Management Rating Scale developed by Philip Hallinger (1987) and the School Culture Survey developed by Steven Gruenert (1998). Both scales proved to be highly reliable in this international context with a coefficient alpha of .97 for the Principal Instructional Management Rating Scale and .93 for the School Culture Survey.

The research questions not only apply to international schools, but could be applied to almost any school. By researching a school with a diverse and international student population, it allowed for this case study to produce results unbiased by a single culture. Many schools in the United States contain diverse student populations from many cultural backgrounds.
Limitations of the Study

The research in this study was limited to one school, The American Embassy School, accredited by the Middle States Association. The results of this study may not be applicable to all international schools since international schools were established for expatriate families, the demographic composition of both teachers and students varies from school to school.

A second limitation was that the study did not examine other possible contributing factors, such as school size, nationalities of the student population, or student achievement. The document analysis revealed that the American Embassy School was going through a rapid growth cycle at the time of this research. This may or may not have been a strong influence upon the results of the research.

Another limitation was that surveys were delivered electronically to teachers in each division. Not all teachers returned the survey resulting in the omission of possible valuable insights.

A further limitation was that the results of the study were limited to teacher reflections and opinions about principal instructional leadership and school culture. Principal opinions were omitted due to the fact there were only three principals. As there are only three divisions in the school, these results are not broad enough to be applied in general to school divisions other than those in the American Embassy School.

In addition, this international school was selected because the researcher had special access to this site. This was a case study of convenience.

Recommendations for Future Research
Hallinger identified one factor of instructional leadership as provides incentives for learning. In the elementary school, mean scores for this factor and interview results showed it to be much weaker than all the other factors of instructional leadership. Alfie Cohen (1994) argues against providing incentives for learning by stating that students learn better through intrinsic motivation. Further research might examine if providing incentives for learning (rewards) results in best instructional leadership practice.

Identified as an important variable, national culture might play an important role in school culture. As students, teachers, and administrators come from more and more diverse backgrounds and cultures, a future researcher could examine the influence of national culture on the culture of a school. For example, does a more multi-cultural and diverse school result in a more positive school culture? What is the relationship between national culture and school culture? These are all good questions for future researchers.

Future research should also consider replicating this case study in other international schools or in the U.S. public school system. In these case studies, future researchers should be certain that one of the principals is known as an instructional leader in order to achieve results. These case studies could also be located in schools with both toxic and collaborative cultures. In addition to case studies, future research might explore data from a large number of schools instead of using one school and three divisions.

In addition, future research could examine other contributing factors besides those included in this dissertation. The ability for a principal to establish favorable relationships with the staff became a common theme during the research, but it was never a direct factor in the analysis. Indirectly, principal relationships played a strong role in establishing a collaborative and positive school culture. If this could be the subject of
future research, the implications for school leadership and school culture could be significant.

Lastly, future research should look into other principal leadership styles to see how much of a contribution each makes to school culture. In this study, a researcher would need to examine a multitude of schools and principal leadership styles. Future research could determine if one leadership style is more effective that another in achieving a collaborative and positive school culture.

Conclusion

The last section of this final chapter identifies instructional leadership best practices for all principals as they strive to create a more collaborative and positive school culture in the effort to improve student achievement. The research results from this study identify instructional leadership factors and characteristics that positively influence school culture. These results arise from a single case study at the American Embassy School, in New Delhi, India.

Principals can be visionaries and communicate this to their teachers. To formulate such academic visions, principals must stay current with best practices in their field of education. Teachers who understood the principal’s vision were much more likely to be committed to it and as a result, contribute toward realizing a positive school culture.

Principals need to be curriculum coordinators within their schools. By learning current best practices, principals can have a thorough understanding of curriculum as they lead their school. At the same time, principals can better evaluate teachers and help them improve.
Principals need to be communicators. As a communicator, principals not only communicate information to teachers, but also receive communication from teachers. This can help them learn valuable information about their school. These instructional leadership factors strongly influence school culture.

These factors of instructional leadership influence teacher collaboration as part of school culture. Principals may want to provide more common planning time in order for teachers to collaborate. Teachers must also be taught to collaborate by administration and professional developers. Principals may consider themselves as a model for their staff and show how collaboration works when it comes to student work, curriculum and assessment.

Professional development demonstrated may connections with instructional leadership. Principals may emphasize whole group, building-wide, and ongoing professional development over personal professional development. When faculty meetings and professional development days are used to inform teachers about best practice in assessment and instruction, it plays a significant role in shaping school culture. Teachers can not only learn from administrators and expert presenters, but from each other as well. Principals should encourage expert teachers to share their knowledge.

Instructional leadership strongly influenced collective leadership as part of school culture. Principals can delegate the leadership responsibilities, and also make an effort to involve all teachers and stakeholders in leadership decisions especially in the areas of curriculum, assessment, and instruction. Teachers may not always agree with a change, but they can often be encouraged to support it with a few adjustments.
Finally, the leadership characteristic most often mentioned was the principal’s ability to form meaningful relationships. A principal communicates vision for instruction and curriculum through these valued relationships to establish a collaborative and positive school culture. This finding confirms the work of Karl Weick (1982) when he describes schools as “loosely coupled” led by principals who value relationships. When principals make an effort to talk to teachers on a personal level, principals move the school toward their instructional vision which results in a collaborative culture. During one of the interviews completed in the study, an elementary teacher indicates the value of these relationships in binding instructional leadership to school culture by stating:

“I have never met anyone like this principal who understands curriculum, who has a foot in the classroom, and when you have a conversation with her it goes so deep and develops into a relationship. It can be fun and playful, but I think she knows her staff and even when we disagree I feel like she comes from a place I honor and trust, and I’m willing to go there with her. I feel we can disagree without being disagreeable. We have this amazing leader who teaches me something new every single day.”
APPENDICES

Appendix A

DIMENSIONS AND CONSTRUCTS OF INSTRUCTIONAL LEADERSHIP (PIMRS)
(adapted from Hallinger, 1987, p. 56)

<table>
<thead>
<tr>
<th>Dimensions</th>
<th>Constructs</th>
<th>Principal/Instructional Leadership Team Behaviors</th>
</tr>
</thead>
<tbody>
<tr>
<td>Defines the Mission</td>
<td>Frames Goals</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Communicates Goals</td>
<td></td>
</tr>
<tr>
<td>Manages Curriculum &amp; Instruction</td>
<td>Supervises &amp; Evaluates Instruction</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Coordinates Curriculum</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Monitors Student Progress</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Protects Instructional Time</td>
<td></td>
</tr>
<tr>
<td>Promotes School Climate</td>
<td>Maintains High Visibility</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Provides Incentives for Teachers</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Promotes Professional Development</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Provide Incentives for Learning</td>
<td></td>
</tr>
</tbody>
</table>
Appendix B

The Principal Instructional management Rating Scale
(Developed by Philip Hallinger, 1987)

To what extent do you as a member of the Instructional Leadership Team...

<table>
<thead>
<tr>
<th>I. FRAME THE SCHOOL GOALS</th>
<th>ALMOST NEVER</th>
<th>ALMOST ALWAYS</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Develop a focused set of annual school-wide goals</td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>2. Frame the school’s goals in terms of staff responsibilities for meeting them</td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>3. Use needs assessment or other systematic methods to secure staff input on goal development</td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>4. Use data on student academic performance when developing the school’s academic goals</td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>5. Develop goals that are easily translated into classroom objectives by teachers</td>
<td>1</td>
<td>2</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>II. COMMUNICATE THE SCHOOL GOALS</th>
</tr>
</thead>
<tbody>
<tr>
<td>6. Communicate the school’s mission effectively to members of the school community</td>
</tr>
<tr>
<td>7. Discuss the school’s academic goals with teachers at faculty meetings</td>
</tr>
<tr>
<td>8. Refer to the school’s academic goals when making curricular decisions with teachers</td>
</tr>
<tr>
<td>9. Ensure that the school’s academic goals are reflected in highly visible displays in the school (e.g. posters or bulletin boards emphasizing reading or math)</td>
</tr>
<tr>
<td>10. Refer to the school’s goals in student assemblies</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>III. SUPERVISE &amp; EVALUATE INSTRUCTION</th>
</tr>
</thead>
<tbody>
<tr>
<td>11. Ensure that the classroom priorities of teachers are consistent with the stated goals of the school</td>
</tr>
<tr>
<td>12. Review student work products when evaluating classroom instruction</td>
</tr>
</tbody>
</table>
13. Conduct informal observations in classrooms on a regular basis (informal observations are unscheduled, last at least 5 minutes, and may or may not involve written feedback or a formal conference)  
   ALMOST NEVER | ALMOST ALWAYS  
   1 | 2 | 3 | 4 | 5

14. Point out specific strengths in teacher’s instructional practices in post observation feedback (e.g., in conferences or written evaluations)  
   ALMOST NEVER | ALMOST ALWAYS  
   1 | 2 | 3 | 4 | 5

15. Point out specific weaknesses in teacher instructional practices in post observation feedback (e.g., in conferences or written evaluations)  
   ALMOST NEVER | ALMOST ALWAYS  
   1 | 2 | 3 | 4 | 5

IV. COORDINATE THE CURRICULUM

16. Make clear who is responsible for coordinating the curriculum across grade levels (e.g., the principal, vice principal, or teacher-leader)  
   ALMOST NEVER | ALMOST ALWAYS  
   1 | 2 | 3 | 4 | 5

17. Draw upon the results of school-wide testing when making curricular decisions  
   ALMOST NEVER | ALMOST ALWAYS  
   1 | 2 | 3 | 4 | 5

18. Monitor the classroom curriculum to see that it covers the school’s curricular objectives  
   ALMOST NEVER | ALMOST ALWAYS  
   1 | 2 | 3 | 4 | 5

19. Assess the overlap between the school’s curricular objectives and the school’s achievement tests  
   ALMOST NEVER | ALMOST ALWAYS  
   1 | 2 | 3 | 4 | 5

20. Participate actively in the review of curricular materials  
   ALMOST NEVER | ALMOST ALWAYS  
   1 | 2 | 3 | 4 | 5

V. MONITOR STUDENT PROGRESS

21. Meet individually with teachers to discuss student academic progress  
   ALMOST NEVER | ALMOST ALWAYS  
   1 | 2 | 3 | 4 | 5

22. Discuss the item analysis of tests with the faculty to identify curricular strengths and weaknesses  
   ALMOST NEVER | ALMOST ALWAYS  
   1 | 2 | 3 | 4 | 5

23. Use test results to assess progress toward school goals  
   ALMOST NEVER | ALMOST ALWAYS  
   1 | 2 | 3 | 4 | 5

24. Inform teachers on the school’s performance results in written form (e.g., in a memo or newsletter)  
   ALMOST NEVER | ALMOST ALWAYS  
   1 | 2 | 3 | 4 | 5

25. Inform students of the school’s test results  
   ALMOST NEVER | ALMOST ALWAYS  
   1 | 2 | 3 | 4 | 5
To what extent do you as a member of the Instructional Leadership Team...?

<table>
<thead>
<tr>
<th>VI. PROTECT INSTRUCTIONAL TIME</th>
<th>ALMOST NEVER</th>
<th>ALMOST ALWAYS</th>
</tr>
</thead>
<tbody>
<tr>
<td>26. Limit interruptions of instructional time by public address announcements</td>
<td>1 2 3 4 5</td>
<td></td>
</tr>
<tr>
<td>27. Ensure that students are not called to the office during instructional time</td>
<td>1 2 3 4 5</td>
<td></td>
</tr>
<tr>
<td>28. Ensure that tardy and truant students suffer specific consequences for missing instructional time</td>
<td>1 2 3 4 5</td>
<td></td>
</tr>
<tr>
<td>29. Encourage teachers to use instructional time for teaching and practicing new skills and concepts</td>
<td>1 2 3 4 5</td>
<td></td>
</tr>
<tr>
<td>30. Limit the intrusion of extra- and co-curricular activities on instructional time</td>
<td>1 2 3 4 5</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>VII. MAINTAIN HIGH VISIBILITY</th>
<th>ALMOST NEVER</th>
<th>ALMOST ALWAYS</th>
</tr>
</thead>
<tbody>
<tr>
<td>31. Take time to talk to students and teachers during recess and breaks</td>
<td>1 2 3 4 5</td>
<td></td>
</tr>
<tr>
<td>32. Visit classrooms to discuss school issues with teachers and students</td>
<td>1 2 3 4 5</td>
<td></td>
</tr>
<tr>
<td>33. Attend/participate in extra- and co-curricular activities</td>
<td>1 2 3 4 5</td>
<td></td>
</tr>
<tr>
<td>34. Cover classes for teachers until a late or substitute teacher arrives</td>
<td>1 2 3 4 5</td>
<td></td>
</tr>
<tr>
<td>35. Tutor students or provide direct instruction to classes</td>
<td>1 2 3 4 5</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>VIII. PROVIDE INCENTIVES FOR TEACHERS</th>
<th>ALMOST NEVER</th>
<th>ALMOST ALWAYS</th>
</tr>
</thead>
<tbody>
<tr>
<td>36. Reinforce superior performance by teachers in staff meetings, newsletters, and/or memos</td>
<td>1 2 3 4 5</td>
<td></td>
</tr>
<tr>
<td>37. Compliment teachers privately for their efforts or performance</td>
<td>1 2 3 4 5</td>
<td></td>
</tr>
<tr>
<td>38. Acknowledge teacher’s exceptional performance by writing memos for their personnel files</td>
<td>1 2 3 4 5</td>
<td></td>
</tr>
</tbody>
</table>
Appendix C

SCHOOL CULTURE SURVEY
Developed at the Middle Level Leadership Center by Steve Gruenert & Jerry Valentine (1998)

Rate each statement on the following scale:

<table>
<thead>
<tr>
<th>1 = Strongly Disagree</th>
<th>2 = Disagree</th>
<th>3 = Neutral</th>
<th>4 = Agree</th>
<th>5 = Strongly Agree</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Strongly Disagree</td>
<td>Disagree</td>
<td>Neutral</td>
<td>Agree</td>
</tr>
</tbody>
</table>

1. Teachers utilize professional networks to obtain information and resources for classroom instruction.
2. Leaders value teachers’ ideas.
3. Teachers have opportunities for dialogue and planning across grades and subjects.
4. Teachers trust each other.
5. Teachers support the mission of the school.
6. Teachers and parents have common expectations for student performance.
7. Leaders in this school trust the professional judgment of teachers.
8. Teachers spend considerable time planning together.
9. Teachers regularly seek ideas from seminars, colleagues, and conferences.
10. Teachers are willing to help out whenever there is a problem.
11. Leaders take time to praise teachers that perform well.
12. The school mission provides a clear sense of direction for teachers.
13. Parents trust teachers’ professional judgments.
14. Teachers are involved in the decision-making process.
15. Teachers take time to observe each other teaching.
16. Professional development is valued by the faculty.
17. Teachers’ ideas are valued by other teachers.
18. Leaders in our school facilitate teachers working together.
19. Teachers understand the mission of the school.
20. Teachers are kept informed on current issues in the school.
21. Teachers and parents communicate frequently about student performance.
22. My involvement in policy or decision-making is taken seriously.
23. Teachers are generally aware of what other teachers are teaching.
24. Teachers maintain a current knowledge base about the learning process.
25. Teachers work cooperatively in groups.
26. Teachers are rewarded for experimenting with new ideas and techniques.
27. The school mission statement reflects the values of the community.
28. Leaders support risk-taking and innovation in teaching.
29. Teachers work together to develop and evaluate programs and projects.
30. The faculty values school improvement.
31. Teaching performance reflects the mission of the school.
32. Administrators protect instruction and planning time.
33. Teaching practice disagreements are voiced openly and discussed.
34. Teachers are encouraged to share ideas.
35. Students generally accept responsibility for their schooling; for example, they engage mentally in class and complete homework assignments.
Factors With Items from the School Culture Survey

Item Factor 1: Collaborative Leadership
2. Leaders value teachers' ideas.
7. Leaders in this school trust the professional judgments of teachers.
11. Leaders take time to praise teachers that perform well.
14. Teachers are involved in the decision-making process.
18. Leaders in our school facilitate teachers working together.
20. Teachers are kept informed on current issues in the school.
22. My involvement in policy or decision making is taken seriously.
26. Teachers are rewarded for experimenting with new ideas and techniques.
28. Leaders support risk-taking and innovation in teaching.
32. Administrators protect instruction and planning time.
34. Teachers are encouraged to share ideas.

Factor 2: Teacher Collaboration
3. Teachers have opportunities for dialogue and planning across grades and subjects.
8. Teachers spend considerable time planning together.
15. Teachers take time to observe each other teaching.
23. Teachers are generally aware of what other teachers are teaching.
29. Teachers work together to develop and evaluate programs and projects.
33. Teaching practice disagreements are voiced openly and discussed.

Factor 3: Professional Development
1. Teachers utilize professional networks to obtain information and resources for classroom instruction.
9. Teachers regularly seek ideas from seminars, colleagues, and conferences.
16. Professional development is valued by the faculty.
24. Teachers maintain a current knowledge base about the learning process.
30. The faculty values school improvement.

Factor 4: Unity of Purpose
5. Teachers support the mission of the school.
12. The school mission provides a clear sense of direction for teachers.
19. Teachers understand the mission of the school.
27. The school mission statement reflects the values of the community.
31. Teaching performance reflects the mission of the school.

**Factor 5: Collegial Support**

4. Teachers trust each other.
10. Teachers are willing to help out whenever there is a problem.
17. Teachers' ideas are valued by other teachers.
25. Teachers work cooperatively in groups.

**Factor 6: Learning Partnership**

6. Teachers and parents have common expectations for student performance.
13. Parents trust teachers' professional judgments.
21. Teachers and parents communicate frequently about student performance.
35. Students generally accept responsibility for their schooling, for example they engage mentally in class and complete homework assignments.
Appendix D

Informed Consent for Electronic Survey

(Placed on the opening page of the survey link)

Dear Faculty Member,

As part of the dissertation for my doctoral studies at the University of Minnesota, I am asking you to complete a survey. The purpose of the study is to learn more about the influence of instructional leadership on school culture.

I would appreciate if you can take about 20 minutes to complete this online survey. No teacher or principal in this study will be identified. Survey responses will be anonymous and confidential.

Please give your consent to participate in this survey by clicking on the consent button. This will take you to the start of the survey

(Consent link said "Yes, I agree to this consent form.")

Thank you for your valuable time in participating in this survey.

Yours Sincerely,

Jonathan DuPont

University of Minnesota Doctoral Candidate
Grade 2 Teacher
Appendix E

Interview questions

1. Tell me a little bit about your principal.

2. What do you think of the direction this elementary/middle/high school is heading?

3. What do you think of the teacher evaluation process?

4. What is your principle doing to protect instructional and planning time?

5. In what ways does the principal share instructional leadership with teachers?

6. In what ways have you developed professional at the American Embassy School?

7. How do you feel about the instructional leadership of the principal in your school?

8. How you describe the conditions at your school?

9. Can you tell me about the value of collaboration within your school?

10. Some researchers have referred to school culture as, “The way we do things around here.” How are things done around your school?

11. Thinking back, do you have any examples that show your principle as a leader?

12. How are the goals of the school communicated to the faculty?

13. How would you describe the culture and climate of the American Embassy School?

14. In what ways do teachers work cooperatively to improve student learning?

15. What would you say is the most important thing that your principal does to improve instruction and learning?

16. Would you like to add anything else?
Appendix F

Focus Group Interview Questions

Please introduce yourself by telling us your name, the grade you teach, and by giving us a quick summary of your teaching experience.

1. What would you say to other teachers interested in working in our elementary school?

2. What would you tell them about the leadership at the elementary school in regards to curriculum?

3. Some researchers refer to school culture as, “the way we do things around here.” How would you say things are done around the elementary school?

4. What do you think about the direction the elementary school is heading?

5. What is the most important thing your Susan and Peggy do to improve instruction and learning?

6. How would you describe the culture of the American Embassy School?

7. If you could give advice to the principal, what would it be?

8. Have I missed anything?
Appendix G

Pairwise Comparisons for the Mean Differences for Factors of Instructional Leadership

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Dependent variable: Instructional Leadership. Turkey HSD
*The mean difference is significant at the .05 level.
## Appendix H

*Pairwise Comparisons for the Mean Differences for Factors of School Culture*

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Dependent variable: School Culture. Turkey HSD

*The mean difference is significant at the 0.05 level.
REFERENCES


