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## **A Comparison Of Views On Teacher Leadership From Nationally Board Certified Teachers And Teachers Who Are Not Nationally Board Certified, In Illinois**

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A COMPARISON OF VIEWS ON TEACHER LEADERSHIP FROM NATIONALLY  
BOARD CERTIFIED TEACHERS AND TEACHERS WHO ARE NOT  
NATIONALLY BOARD CERTIFIED, IN ILLINOIS

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A Dissertation

Presented to

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Department of Teaching and Learning

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Terre Haute, Indiana

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In Partial Fulfillment

of the Requirements for the Degree

Doctor of Philosophy

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by

Catherine Eads

December, 2016

Keywords: teacher, leadership, schools, culture, leaders, National Board Certified

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## ABSTRACT

Reform movements in K-12 schools in the United States have grown in urgency over the past 25 years. The urgency for reform was spurred by, *A Nation at Risk: The Imperative for Educational Reform* (National Commission on Teaching, 1996). Following the report educators in K-12 schools became more accountable due to the No Child Left Behind Act (2001). As a result, the National Commission on Excellence in Education recommended the establishment of the National Board for Professional Teaching Standards. This group developed the optional certification of National Board Certification of teachers.

The purpose of this study was to investigate National Board Certified Teachers' perception of teacher leadership and compare their views to teachers who were not certified in the state of Illinois. The study revealed that National Board Certified Teachers in Illinois believe they have more school support for teacher leadership involvement than teachers who were not certified. The conclusions and recommendations may assist school leaders in seeking ways to better engage in school reform.

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## CHAPTER 1

### INTRODUCTION

In a time of high-stakes accountability, school administrators are weighing several issues to move toward large-scale reform. Current educational pressures challenge administrators and teachers to improve their practice and raise student achievement levels. Change is expected by the public to occur from the top down, with administrators dictating how change will occur. Within the literature on teacher leadership is the implication that administrators need teacher leaders in order to meet the goal of improved student achievement (Leithwood, Louis, Anderson & Wahlstrom, 2004). Strong leadership is essential for schools to be effective. With increased demands on school administrators, the development of teacher leadership has become a vital ingredient for schools to be effective. Administrators can decrease demands and pressures by developing teacher leaders. Increasing teacher leadership has become a vital ingredient for schools to be effective (Marzano, 2005).

Research has demonstrated that school improvement is best sustained by empowering teachers to lead change in schools (Harris, 2004). Traditionally, change in schools is thought to occur through administrators, from the top down. By empowering teachers, teacher-led reform occurs from the bottom up, with teachers taking initiative for school improvement. A complex and complicated relationship exists in schools between administrators who envision change,

teacher leaders who initiate change, and teachers who accept or reject change. By examining the perceptions of teacher leaders, this relationship can be better understood.

Of all the stakeholders involved in school reform, teacher leaders are a unique group of educators who maintain an in-between position. Teacher leaders are in a position of frequent collaboration with administration, while at the same time practicing alongside colleagues. This unique position raises some issues for teacher leaders who wish to initiate and sustain school reform. Understanding more about teacher leaders can lead to reform necessary for quality school improvement. National Board Certified Teachers are leaders in their field (Elfers & Plecki, 2006). By closely examining the views of this group, schools can make changes to enhance leadership opportunities for teachers.

### **Teacher Leadership**

Many definitions of teacher leaders exist within the literature. Rosenholtz (1989) identified teacher leaders as “those who reached out to others with encouragement, technical knowledge to solve classroom problems, and enthusiasm for learning new things” (p. 208). Using this definition should place most teachers in the leader category, yet most teachers do not view themselves as leaders. The “I’m just a teacher” syndrome occurs because for so many years, leadership has been associated with administration from the top (Barth, 2001). In a similar position, Childs-Bowen, Moller, and Scrivner (2000) stated that “teachers are leaders when they function in professional communities to affect student learning; contribute to school improvement; inspire excellence in practice; and empower stakeholders to participate in educational improvement” (p. 28).

Some definitions of teacher leadership hold that simply being in the role of a teacher implies a leadership position. Dewey (1933/1960) stated that teaching implies leadership because

“in reality the teacher is the intellectual leader of a social group . . . not in virtue of official position, but because of wider and deeper knowledge and matured experience” (p. 273). York-Barr and Duke (2004) described teacher leadership as an idea that emphasizes that teachers hold an important position within the schools. Exploring the internal environments of schools that promote teacher leadership is crucial to long term success. Teacher leadership is a shared position with other teachers and usually holds no managerial or supervisory responsibilities as an administrative position would (Murphy, 2005). A teacher leader may be a leader in some aspects and points in time and a follower in others. Teacher leadership, therefore, may be a temporary role.

Effective change needs to occur from the bottom-up; with teachers desiring to improve their practice and taking the initiative to change (Danielson, 2006). Katzenmeyer and Moller (2001) identified seven characteristics of school culture that support teacher leadership through their research of over 5,000 teachers:

1. School environment has a developmental focus where teacher leaders are coached;
2. Teachers receive recognition for their contributions as leaders;
3. Teachers are encouraged to take risks and be autonomous about assuming responsibility for initiatives;
4. Collegiality is a norm of practice;
5. Teachers participate in decision making about important matters;
6. There is effective communication between and among teachers; and
7. There is a positive work environment where teachers feel supported. (pp. 77-78)

There are two related standards—the norm of followership, the belief that teachers are “followers, not leaders” (Moller & Katzenmeyer, 1996, p. 3), and the norm of compliance, the belief that it is the job of teachers to comply with directives from above (Wasley, 1991)—that

may inhibit and hinder the emergence of teacher leadership. The root of teacher leadership lies in learning aimed at change rather than controlling others (Darling-Hammond, Bullmaster, & Cobb, 1995). The influence teachers have is based on the culture in which they are working and their ability to activate their role as a leader. Acker-Hocevar and Touchton (1999) described this balance as, “how well they know how to work the system, their perceived expertise, the influence afforded to them, the collective agency of the group, and the norms within the school and district” (p. 24).

### **National Board Certification**

The National Board for Professional Teaching Standards grew out of initiatives in the 1980s aimed at the professionalization of teaching (Carnegie Forum on Education and the Economy, 1986). The Carnegie Forum on Education and the Economy determined that the purposes of the National Board for Professional Teaching Standards are multiple, “with at least three strands: increased professionalization of teaching through development of standards and assessments, identification and certification of accomplished and effective teachers, and promotion of teacher leadership within schools and in larger policy contexts” (1986, p. 15).

In addition to direct student achievement effects, National Board Certified Teachers may also have indirect effects through their influence on other teachers or on schoolwide policy. Frank et al. (2008) found in their study that National Board Certified Teachers help more colleagues with their instruction than non-National Board Certified Teachers. National Board Certified Teachers also serve in leadership roles, although studies have raised questions about this and found the principal’s stance to be a critical factor in how National Board Certified Teachers are viewed and used in schools (Anagnostopoulos, Sykes, McCrory, Cannata, & Frank, 2010; Koppich, Humphrey, & Hough, 2007).



### **Purpose of the Study**

Teacher leadership appears to be situational, and teachers become informal leaders in various ways. The purpose of this study was to examine the leadership views of National Board Certified Teachers in regard to the elements of school culture that support teacher leadership. In examining these views, currently practicing teachers and school administrators can foster internal environments in which teacher leadership can flourish.

The personal experiences and perspectives of the teacher leaders explored in this study will enhance educators' understanding of their roles. Teacher leadership is imperative for school improvement (Danielson, 2007; Mayo, 2002) yet little is written from the teacher leaders' perspective (Birky, Shelton, & Headley, 2006). In examining the complex relationships that exist between teacher leaders and their colleagues, and between teacher leaders and their supervisors, administrators may encourage other teachers to lead and improve their schools. Paredes Scribner and Bradley-Levine (2010) stated "The meaning of teacher leadership in any setting is a window into the culture of the school, and school culture develops over time" (p. 496).

Elmore (2000) has stressed the importance of shared leadership in schools. If school administrators can improve their schools with the assistance of teacher leaders, they would likely want to learn why some teachers desire to lead while others remain reticent. Discovering the perceptions of teachers who are leaders will help build school cultures conducive to the development of teacher leaders.

### **Theoretical Framework**

The lens through which this quantitative study was conducted is a participatory worldview approach. An advocacy/participatory worldview perspective produces an action agenda for reform that may change the lives of the participants as well as the institutions in

which the individuals work in. This study applied a theoretical framework for teacher leadership grounded in and extending the findings from the review of literature. The literature documents key understandings about teacher leadership and suggests a path by which teacher leaders can improve their practice and influence student learning.

According to Katzenmeyer and Moller (2001), teacher leadership roles may be (a) focused on the classroom, the school, the school district, the state, or the national level, (b) closely related to a specific discipline or defined as generalist, (c) an individual contributor or may be a team member, (d) highly formalized or simply a one-time contribution, and (e) chosen by election of peers, by administrative appointment, or by self-selection. (p. 11)

Three leadership functions emerge from these leadership roles: (a) teacher leaders may influence their peers as they perform their responsibilities, (b) the teacher leader's function may be to contribute to the daily operations within or outside the school, and (c) teachers may serve in governance positions or in decision-making roles within or outside the school. Teacher leaders may accept multiple tasks, which cross over the lines of these functions (Katzenmeyer & Moller, 2001).

### **Research Questions**

One questions drove this study.

Using the Teacher Leadership School Survey, how do National Board Certified Teachers' views on teacher leadership compare to views on teacher leadership of teachers who are not National Board Certified, in the state of Illinois.

### **Overview of Methodology**

This study sought to further develop the research on teacher leadership by closely examining the views of National Board Certified Teachers compared to teachers who are not National Board Certified. The literature on teacher leadership supports that National Board Certified Teachers are teacher leaders by definition. By closely examining the views of both groups of teachers, I sought to examine what is working within school culture to support teachers in their efforts to be teacher leaders.

### **Limitations of the Study**

Although this study has the potential to help school leaders understand the nature of teacher leadership it does have limitations. The targeted population of teachers of this study is practicing teachers in Illinois, some who have achieved National Board Certification and others who have not achieved National Board Certification. These views may be different than the views of other teachers in Illinois, or in states throughout the country. Inherent personality, perceptions, and the varying backgrounds of the participants may affect their responses.

National Board Certified Teachers are already defined as teacher leaders in completing the process of certification. Teachers who have not completed the additional certification may or may not be teacher leaders in their schools. Teacher who completed the survey who are not National Board Certified may not have taught long enough to apply for the certification, or to demonstrate leadership qualities. The views of the participants have the potential to contribute to the literature and guide current administrators to examine what could be changed to promote teacher leadership within their schools.

This study required teachers to self-report their perceptions of teacher leadership. The validity of the study is dependent upon teachers' responses to truly report their perceptions.

These perceptions, by nature, were subjective and influenced by many factors.

### **Significance of the Research**

Under the No Child Left Behind (NCLB) Act of 2001, Title 1 schools that fail to produce two consecutive years of adequate yearly progress (AYP) will be forced into drastic reform measures. Teacher leadership has emerged as an important component to many school improvement efforts (Durrant & Holden, 2006). Teachers are essential components in improving student achievement. For this reason, identifying teacher leadership qualities and in what environments this character trait can prosper is important. A connection between schools in which teacher leadership is occurring and the success of school reform is well documented in the literature (Copland, 2003; Datnow & Costellano, 2002; DuFour & Eaker, 1998).

York-Barr and Duke (2004) described several potential benefits of teacher leadership: engagement and commitment, recognition and rewards, student benefits, and the recruitment and retention of future teachers. Rather than reacting to failure by penalizing schools and teachers, it makes sense to promote successful environments in which teachers feel powerful toward positive change and improved student learning.

When examining leadership, it is important to consider the role of followership. Leadership occurs when two or more people interact, therefore, in order for leadership to occur there must be followers. Both followership and leadership are roles, with any member of an organization filling both roles at different times (Kelley, 1991). Kelley (1991) identified six skills which he believes are characteristic of followership: self-management, commitment, competence, credibility, contributions, and courage. Greenleaf (1970) coined the term servant-leadership and approaches leadership with a service-first approach. Crippen (2012) added, "If a school is truly developing and growing, and if learning is collaborative, each person is leader and

follower at various times” (p. 4). A teacher leader does not know everything there is to know at all times. A teacher leader uses the knowledge of others to achieve the goals of the school.

With this in mind, an examination of the literature as it pertains to the definitions of teacher leadership and the environments that both promote and impede teacher leadership will follow.

### **Definitions of Terms**

The following definitions are provided to avoid misunderstanding while reading this dissertation:

#### **National Board Certified Teacher**

National Board Certification is an optional certification at the national level for teachers who have at least three years of teaching experience. Certification involves an extensive application and portfolio process and a large fee.

#### **Professional Development**

Professional development consists of formal and informal learning opportunities, intended to advance teachers’ professional knowledge.

#### **Self-Efficacy**

Self-efficacy is an individual’s personal judgment of his or her capabilities to organize and carry out actions that will result in anticipated performance (such as student performance).

#### **Autonomy**

Autonomy describes a state in which, teachers are encouraged to be proactive in making improvements and innovations.

#### **Collegiality**

Collegiality describes a work environment, in this case schools, in which teachers discuss

strategies, share materials, or observe one another's work.

**Participation**

Participation occurs when teachers are involved in making decisions and having input on important matters.

## CHAPTER 2

### A REVIEW OF RESEARCH ON TEACHER LEADERS

Most would agree that good teachers are a school's most valuable asset. A connection between good teachers and teacher leaders is clear in a review of the literature. The term teacher leader suggests that teaching holds both a traditional position of instruction and opportunities for leadership (York-Barr & Duke, 2004). Darling-Hammond (2000) made the observation that teacher quality leads to improved student achievement. Educational reform is impacted in a positive and negative manner by teachers (Smylie, 1996). Good teachers or teacher leaders would impact reform in a positive manner. The literature rarely explores organizational benefits in schools that support teacher leaders. It is essential for schools to determine conditions that support teacher leaders in order for educational reform to occur.

#### **Definitions of Teacher Leadership**

There are various definitions throughout the literature of teacher leadership. The most common theme among the various definitions was influence. Katzenmeyer and Moller (2001) stated, "teacher leadership is influencing others toward improved educational practice," (p. 7). A formal title is not necessarily attached to the term teacher leader. Katzenmeyer and Moller (2001) added, "formal positions are not necessary to influence others," (p. 7). Outside of the field of education, leaders are typically thought of as working alone. The literature on teacher leadership describes this group as working as a team. Danielson (2006) stated, "teacher leaders

develop a collaborative relationship with colleagues; they inspire others to join them on a journey without a specific destination,” (p. 13). It is important to not only consider the collective collaborative aspect of teacher leadership, but also consider motivation. Fullen (2007) stated, “teacher leadership is an individual commitment, but above all it is collective mobilization,” (p. 9).

### **Empowerment**

Throughout the literature empowerment is found as a critical components of teacher leadership. Teachers may have the desire and initiative to serve as leaders, but administrators must provide opportunity for leadership through empowerment. Moller, Childs-Bowen and Scrivner (2001) described the school principal as holding the largest responsibility for empowering teacher leaders. They stated that, “Successful principals should identify competent, credible, and approachable teachers, then build their leadership capacity by providing resources. Principals must give teachers access to information and research crucial to their decision making,” (Moller, Childs-Bowen and Scrivner, 2001, p. 6). In order for reform efforts to work, it is critical that administrators tap into teacher leadership (Moller, Childs-Bowen and Scrivner, 2001).

Creating teacher leaders can be increased by enhancing teacher empowerment. Lightfoot (1986) stated when examining empowerment three assumptions can be made: “(a) the earlier one begins to practice empowerment the better, (b) the expression of empowerment in schools needs to be felt at every level, and (c) empowerment reflects a dynamic process, not a static final state,” (pp. 9-10). Lightfoot (1986) cautions of the overuse of the term and the importance of defining exactly what the word means, “empowerment refers to the opportunities a person has for autonomy, responsibility, choice, and authority,” (p. 9).



As administrators increase conditions that encourage teacher leadership, teacher leaders can increase the impact on the educational environment (Danielson, 2007). There is also increased impact when teachers are empowered as a group of teacher leaders. Danielson stated, “The school administrator cannot be an expert in everything. Individual teachers, of course, have their own particular areas of knowledge, but a group of teacher leaders can supply the variety of professional knowledge needed for sustained school improvement,” (p. 16). There is a clear need to ensure that teachers are empowered to be leaders. Teachers supported by administrators will make improvements schoolwide. “By understanding the phenomenon of teacher leadership and helping teachers develop the skills required to act as leaders, we will improve schools and help teachers realize their full potential,” (Danielson, 2007, p.19).

In order for teacher leaders to develop, it is necessary for teachers to be knowledgeable about school operations. Principals must share knowledge and skills with teacher leaders for real school improvement to occur (Greenlee, 2007). To feel the benefits of teacher leadership, it is important for administrators to build leadership roles for teachers into the structure of the school (Johnson & Donaldson, 2007). In order for teacher leaders to become empowered, change in the power structure will need to occur in educational leadership (Levine, 2011). Conceptions of the roles of teachers and teacher education also need to change (Little, 1988). Teacher preparation programs and staff development need to include a leadership model (Quinn, Haggard & Ford, 2006).

Studies have shown that high-performing schools often have teachers who are involved in the decision-making process (Barth, 2001). School reform literature notes that teacher empowerment is linked to school change (Bryk & Schneider, 2003). Crowther et al. (2002) described parallel leadership as teacher leaders working parallel with administrators to enhance

student achievement. This relationship, “embodies mutual respect, shared purpose, and allowance for individual expression” (Crowther et al., p. 38). In this model principals assume responsibility for strategic leadership and teachers assume responsibility for implementation of best-teaching practices. Teacher leaders should make more assertions and take risks to make a greater impact in schools (Beauchum & Dentith, 2004).

Bogler and Somech (2004) studied 983 middle and high school teachers to determine if a relationship between teacher empowerment and teachers’ organizational commitment and organizational citizenship existed. Their research indicated that teachers’ perceptions of their level of empowerment are significantly related to their feelings of commitment to the organization and to the profession, as well as their organizational citizenship behavior. The researchers found that four subscales—empowerment, professional growth, status and self-efficacy—were significant predictors of professional commitment and three subscales—decision making, self-efficacy and status—were significant predictors of organizational citizenship behavior.

### **Self-Efficacy**

Danielson (2007) described two roles of teacher leaders: formal and informal. Formal roles involve some type of official charge whereas informal roles “emerge spontaneously and organically” (Danielson, 2007, p. 16). Roby (2011) stated that the informal leader has, “the potential to influence the culture of the school, and this can be dramatic” (p. 788). It is the job of formal leaders to organize and direct a group of individuals to meet the goals of the organization. Despite the fact that an informal leader does not have the official authority to lead a group, members of the group follow the informal leader. Self-efficacy was introduced by Bandura (1977) as “beliefs in one’s capacity to organize and execute the courses of action required to

produce given attainments” (p. 3). Short and Rhinehart (1992) identified self-efficacy as a component of educational leadership. Teachers who are leaders must have the necessary skills to lead and not just the desire to be a leader.

Mastery experience is a critical component of efficacy (Bandura, 1993). Fullan (1994) stated teacher leaders possess a combination of “inner-related domains of commitment and knowledge” (p. 246). Anderson (2008) emphasized teacher leaders as confident, determined, outspoken, and knowledgeable. Goddard, Hoy, and Hoy (2000) examined self-efficacy a step further to collective efficacy associated with the “tasks, level of effort, persistence, shared thoughts, stress levels, and achievement” (p. 482) of teachers. The researchers found that collective teacher efficacy was positively associated with improvements in student reading and math.

In order to effectively discuss self-efficacy, it is critical to examine locus of control originated in Rotter's social learning theory (Rotter, 1966). Locus of control considers the tendency of people to believe that control resides internally within them, or externally, with others or the situation. Rotter (1990) described internal versus external locus of control as

the degree to which persons expect that a reinforcement or an outcome of their behavior is contingent on their own behavior or personal characteristics versus the degree to which persons expect that reinforcement is a function of chance, luck or fate, is under the control of powerful others, or is simply unpredictable. (p. 489)

For some individuals, outcomes are experienced as being dependent on the effort expended in their pursuit (internal control) while others experience outcomes as being the result of external or impersonal forces such as luck or fate (external control; Lefcourt, 1991). Llanes (1998) identified mentoring as playing a major role in changing the way teachers view their own efficacy. In this

study, mentoring led to improved teacher efficacy of the mentee which led to improved school climate. Teacher leaders offer encouragement and support to others (Wilson, 1993).

### **Participation**

Professional-learning communities were extensively identified in the research as creating teacher leaders. Childs-Bowen et al. (2000) noted “teachers are leaders when they function in professional communities to affect student learning” (p. 28). Professional-learning communities lead to more proficient teachers as well as creating teacher leaders (Caine, 2000). Teacher leaders need to know how to facilitate professional dialogue among peers in order to mobilize each other into action (Donaldson, 2007). DuFour (2007) stated that professional-learning communities develop teacher leaders that “provide a powerful, proven conceptual framework for transforming schools at all levels” (p. 7). The innovative practice of learning through professional-learning communities can be linked to communities of practice. Those who participate in communities of practice share a common interest and a desire to learn from and contribute to the community with their variety of experiences (Lave & Wenger, 1991).

Professional development was found to play a role in teacher leadership throughout the literature. Professional development should be relevant and should motivate and develop teacher leaders (Kaufman & Ring, 2011). According to Lord and Miller (2000), teacher leaders provide support to their colleagues in changing instructional practices through relevant professional development. It is also important for teachers to be involved in the planning process and provide input about the type of professional development needed. When teachers are involved in planning their professional development, leadership thrives (Moller et al., 2001).

In a study by Smylie (1992), teachers’ willingness to participate in leadership positions within the school was examined. Areas studied included personnel, curriculum and instruction,

and staff development. Smylie found that the relationship between the principal and teachers greatly influenced teachers' willingness to participate in change within the school. The researcher also found that organizational contexts of schools have substantial influence on the performance and outcomes of teacher leadership. The sample size in Smylie's investigation was small, but it provided useful information into teachers' perceptions of leadership, willingness to facilitate change, and decision making.

A study by Silva, Gimbert, and Nolan (2000) examined the relationships between both administrators and teachers to facilitate change in schools. Teachers in this study shared their experiences with collaboration and self-reflection in order to improve student learning. The researchers found that strong supportive relationships between their colleagues provided the supported necessary to effect change in teaching practice. The researchers found a need for change in organizational structures so that support is provided to teachers in order to promote teacher leaders.

Elmore (2004) found in his study, "unless there is radical change in the structure of school leadership, few schools will be able to rise to the challenge of enabling all students to meet high standards" (p. 1). Elmore found that shared leadership practices create a shared school culture of expectations and accountability.

### **Positive School Environment**

Two main environmental factors are found in the literature to contribute to teacher leadership: school culture and administrator's influence. School culture refers to the conditions within schools that influence teacher leadership. York-Barr and Duke (2004) described school culture as the organizational structure of schools and colleagues relationships with each other. School principals were found to have the greatest power over teachers (York-Barr & Duke,

2004) and can hinder or foster teacher leadership. Administrators' relationship with teachers strongly influence a school's culture (Howey, 1988).

School culture can either weaken or strengthen the emergence of teacher leaders (Harris, 2004; Muijs & Harris, 2007). School culture, specifically schools' social environments, strongly impact teachers' willingness to assume extra responsibilities associated with teacher leadership (Hart, 1995). By gathering systematic field notes and conducting structured and unstructured interviews, Hart (1995) ascertained that a school's culture determines the success or failure of teacher leadership.

In addition to a school's cultural influence on teacher leadership, the actions of administrators determine whether teacher leadership transpires. School principals can either weaken or reinforce teacher leadership, and teacher leaders are seldom effective in their roles without the support and encouragement of their administrators (Birky et al., 2006).

Within every school there is a sleeping giant of teacher leadership, which can be a strong catalyst for making change. By using the energy of teacher leaders as agents of school change, the reform of public education will stand a better chance of building momentum. (Katzenmeyer & Moller, 2001, p. 2)

Crowther et al. (2002) presented a framework from which teacher leaders emerge. The framework is characterized by six statements of values and actions that define the new generation of teachers aspiring to lead. Teacher leaders

- convey convictions about a better world;
- strive for authenticity in their teaching, learning, and assessment practices;
- facilitate communities of learning through organization-wide processes;
- confront barriers in the school's culture and structures;

- translate ideas into sustainable systems of action; and
- nurture a culture of success. (p. 4-5)

In schools where the administration recognizes and supports teacher leadership, significant contributions to a positive school culture are visible to all stakeholders. Leithwood, Aitken, and Jantzi (2001) gave guidance to school administrators in actualizing the potential of teacher leadership. Leithwood et al. recommended to principals that they treat each teacher as a whole person by encouraging his or her development based on professional inquiry and diagnosis of professional needs.

Necessary to the development of teacher leadership is the competent and caring principal who recognizes the value of developing teacher leaders. The principal must demonstrate mastery in the theory behind the development of teacher leaders. Bennis and Nanus (1985) identified these administrators as transformational leaders who “commit people to action . . . convert followers into leaders, and convert leaders into agents of change” (p. 3). Common among the administrators who successfully develop teacher leaders are those who “(1) establish a culture of trust, honesty, and professionalism, and (2) facilitate opportunities for teacher leadership” (Mullen & Jones, 2008, p. 329). This occurs, “where teachers are not afraid to fail, where teachers are engaged in reflective practice and provided a supportive environment in the school, where teacher leaders thrive and where teachers are held accountable, given voice, empowered as change agents and are encouraged to frequently contribute to school improvement, increased learning and achievement result” (Mullen & Jones, 2008, p. 332).

Teacher support from the principal is extremely important to the success of teacher leaders. Barth (2001) stated, “The principal has a disproportionate influence upon teacher leadership—for better or worse” (p. 447). Katzenmeyer and Moller (2001) added “a principal’s willingness to share power and to be a colearner with teacher leaders to improve classroom practice . . . removing

barriers, providing resources, and actively listening can be important tasks a principal does for teacher leaders” (p. 20). Findings of Smylie (1992) indicate that teachers’ relationships with their principals significantly influenced teachers’ willingness to participate in all areas of decision making.

Fullan (2007) asserted that “the main mark of an effective principal is not just his or her impact on the bottom line of student achievement, but also on how many leaders he or she leaves behind who can go even further” (p. 95). Fullan also discussed the high turnover of principals, which raise the issue of sustainability of continuous improvement.

Research suggests that increasing the leadership responsibility of teachers has positive outcomes for all stakeholders (Hart, 1995). In general, however, public education has not been receptive to this change. A struggle between administrators and teachers over occupational boundaries impedes some teacher from leading their colleagues (Goldstein, 2004). Since teacher leadership means different things to different people, teacher leaders may experience difficulty in finding their role between administrative leader and classroom instruction. Because the role of teacher leader is loosely defined and not well understood, it is difficult to find that in-between position.

Administrators may serve as barriers to teacher leadership, but often teacher leaders’ colleagues often impede their progress (Barth, 2001; Harris, 2004). The idea that teachers should teach and administrators should lead can lead to passive or active opposition to teacher leadership (Barth, 2001). This may lead to negativity within the school. Teachers may avoid leadership roles by accepting what they deem to be normal activity or actively try to sabotage or intimidate teachers who wish to lead (Barth, 2001).

Lieberman and Friedrich (2007) initiated a study in which teacher leaders wrote vignettes about their personal experiences. Many teachers shared the risks associated with the role of teacher leader. A clash between teachers’ natural collaborative styles and the top-down



administrative norm was noticed in the research. Teacher leaders were perceived as challenging the system and being boastful and bragging. Teachers who chose not to lead were perceived by the teacher leaders in the study to be defensive and often created conflict (Lieberman & Friedrich, 2007). The researchers also found that those teacher leaders who are not seen by their peers as being in a role to supervise were more accepted. These teachers were viewed by their peers as holding undefined roles and not as superiors and were therefore more accepted.

Other studies support the potential for colleagues to sabotage the efforts of teacher leaders. Hart (1995) found a growing consensus of animosity and jealousy toward teacher leaders led to the formation of opposition groups that worked actively to undermine teacher leaders. Johnson and Donaldson (2007) found that this opposition was discouraging and demoralizing for teacher leaders and therefore created a major barrier to their efforts.

Ackerman and MacKenzie (2006) found that teacher leaders may feel a sense of loneliness. The researchers found that the challenges teacher leaders face are based on the notion that school leadership is formal and hierarchical. Ackerman and MacKenzie noted “part of (teacher) leadership is not just voicing beliefs but staying the course and looking for ways to deepen and expand others’ understanding of thorny issues” (p. 67). They found that by maintaining dual roles as teacher and leader, the ideas of hierarchy leadership may be lessened. Others aspects that were found to break down barriers between peers included strong listening skills and gentle versus abrupt moves toward change (Ackerman & MacKenzie, 2006).

Time constraints were found as another barrier for teacher leaders within the literature. Teachers describe that their day-to-day obligations within the classroom leave no time for leadership (Muijs & Harris, 2007). The demands on classroom teachers to meet ever-changing

requirements and students' needs leave little time for other roles. Barth (2001) stated that there are too many demands and not enough hours in the day for teachers to assume leadership roles.

The roles of informal teacher leaders are usually unpaid positions. Muijs and Harris (2007) identified the lack of financial incentive as a barrier to teacher leadership. In their study they found that teachers rarely want to assume additional responsibilities without extra pay.

Johnson and Donaldson (2007) stated that schools need to support teacher leaders financially if they expect teacher leaders to assume additional responsibilities.

In a study by Gabriel (2005), teacher leaders were found to be perceived as siding with administrators and that teacher leaders may be found to disrupt the status quo. Gabriel (2005) noted that "there will be those who arise to the challenge (of leadership) and those who attempt to knock them down. Leadership breeds envy" (p. 21). He asserted that teacher leaders work for nothing more than job satisfaction and that in order to function, will have to hurdle obstacles created by their peers.

### **Measuring Leadership**

A study by Greenlee (2007) looked to the literature to develop a survey tool. Greenlee explored whether educational-leadership programs enhance leadership skills of participating teachers. In this study, 16 items were identified within the literature to guide this study (see Table 1).

Table 1

*Teacher Leadership Within Literature*

Teacher leader actions	Literature
Professional teacher organizations	Paulu & Winters, 1998
Decision making	Berry & Ginsberg, 1990; Katzenmeyer & Moller, 2001; Paulu & Winters, 1998; Smylie, 1992; Taylor & Bogotch, 1994
Plan school improvement	Darling-Hammond, Bullmaster, & Cobb, 1995; Heller & Firestone, 1995; Katzenmeyer & Moller, 2001
Redesign instruction based on assessment	Barth, 2001
Share ideas with colleagues	Katzenmeyer & Moller, 2001
Be a mentor to new teachers	Darling-Hammond et al. 1995; Gabriel, 2005
Help make personnel decisions	Barth, 2001; Gabriel, 2005
Create partnerships with community	Katzenmeyer & Moller, 2001
Select professional development	Barth, 2001
Present a workshop to colleagues	Katzenmeyer & Moller, 2001
Influence school budgeting	Barth, 2001
Collaborate with peers	Katzenmeyer & Moller, 2001; Pellicer & Anderson, 1995
Lead school committees	Gabriel, 2005; Katzenmeyer & Moller, 2001
Reflect on your own practice	Darling-Hammond et al., 1995
Initiate school activities	Katzenmeyer & Moller, 2001
Design school policy	Barth, 2001

Greenlee (2007) found that teachers enrolled in a leadership program and their principals both revealed an increase in opportunities for leadership due to enrollment in a leadership program. Greenlee's findings suggest a relationship between knowledge and skills gained from such programs and increase involvement in and support for teacher leadership.

Czaja, Livingston Prouty, and Lowe (1998) studied 684 teachers in Texas using the Teacher Leadership School Survey (Katzenmeyer & Moller, 2001) focusing on seven leadership factors: Developmental Focus, Recognition, Autonomy, Collegiality, Participation, Open Communication, and Positive Environment. Perceptions of teachers involved in different types of mentoring were compared to those who had not been involved. The researchers found that significant differences were found in most of the comparisons. The findings suggest that

mentoring may make a significant positive impact on teacher views and therefore the culture of the school.

Greenwood (2011) sought to investigate differences in the selection, supports and barriers to teacher leadership between African American and Caucasian teacher leaders based on perceptions of teacher leaders and school principals. The Teacher Leadership School Survey (Katzenmeyer & Moller, 2001) was used as a tool in this study of 13 principals and 16 teachers from Alabama. The researcher found that there was no statistical difference between the groups.

Salazar (2010) used the Teacher Leadership School Survey (Katzenmeyer & Moller, 2001) to investigate the roles and functions of teacher leaders within program in improvement of secondary schools. The researcher then utilized qualitative case study methodology to investigate the school with the highest student achievement. This study provided insight into the roles that teacher leaders assume.

### **National Board Certification**

The National Board for Professional Teaching Standards was created in response to the Carnegie Forum (1986) report, *A Nation Prepared: Teachers for the 21st Century*, and was part of a larger call to restructure the teaching profession and improve the education and status of teachers (Darling-Hammond, 1988; National Commission on Teaching and America's Future, 1996). Professionalization reforms stem from concerns about the general status of teaching and the potential leadership activities in which teachers may participate in their schools and in larger forums such as the district and the state (York-Barr & Duke, 2004). National Board Certification may be the largest development in teacher policy in recent years (Goldhaber, 2006).

As part of this general thrust, the National Board for Professional Teaching Standards endorsed teacher leadership as a standard for accomplished teachers. Teachers who complete

National Board Certification must demonstrate their ability to enhance student learning fulfilling the National Board's five core propositions. The five core propositions are: teachers are committed to students and their learning, teachers know the subjects they teach and how to teach those subjects to students, teachers are responsible for managing and monitoring student learning, teachers think systematically about their practice and learn from their experience, and teachers are members of a learning community.

The first core proposition of the National Board for Professional Teaching Standards (NBPTS) states that accomplished teachers are committed to their students and their learning.

**Proposition 1: Teachers are Committed to Students and Learning**

- National Board Certified Teachers are dedicated to making knowledge accessible to all students. They believe all students can learn.
- They treat students equitably. They recognize the individual differences that distinguish their students from one another and they take account for these differences in their practice.
- National Board Certified Teachers understand how students develop and learn.
- They respect the cultural and family differences students bring to their classroom.
- They are concerned with their students' self-concept, their motivation and the effects of learning on peer relationships.
- National Board Certified Teachers are also concerned with the development of character and civic responsibility. (NBPTS, 2002, p. 4)

The second proposition ensures that National Board Certified Teachers know what and how to teach.

**Proposition 2: Teachers Know the Subjects They Teach and How to Teach Those**

Subjects to Students.

- National Board Certified Teachers have mastery over the subject(s) they teach. They have a deep understanding of the history, structure and real-world applications of the subject.
  - They have skill and experience in teaching it, and they are very familiar with the skills gaps and preconceptions students may bring to the subject.
  - They are able to use diverse instructional strategies to teach for understanding.
- (NBPTS, 2002, p. 4)

The third core proposition of the National Board for Professional Teaching Standards states that teachers have the ultimate responsibility for student learning.

Proposition 3: Teachers are Responsible for Managing and Monitoring Student Learning.

- National Board Certified Teachers deliver effective instruction. They move fluently through a range of instructional techniques, keeping students motivated, engaged and focused.
- They know how to engage students to ensure a disciplined learning environment, and how to organize instruction to meet instructional goals.
- National Board Certified Teachers know how to assess the progress of individual students as well as the class as a whole.
- They use multiple methods for measuring student growth and understanding, and they can clearly explain student performance to parents. (NBPTS, 2002, p. 4)

Proposition 4 guides teachers toward thinking systematically about their practice. This proposition also stresses the importance of teachers learning from their experiences.

Proposition 4: Teachers Think Systematically about Their Practice and Learn from Experience.

- National Board Certified Teachers model what it means to be an educated person – they read, they question, they create and they are willing to try new things.
- They are familiar with learning theories and instructional strategies and stay abreast of current issues in American education.
- They critically examine their practice on a regular basis to deepen knowledge, expand their repertoire of skills, and incorporate new findings into their practice. (NBPTS, 2002, p. 4)

The fifth core proposition of the NBPTS states that accomplished teachers collaborate with other teachers and work “with other professionals on instructional policy, curriculum development and staff development” (NBPTS, 2002, p. 4).

Proposition 5: Teachers are Members of Learning Communities.

- National Board Certified Teachers collaborate with others to improve student learning.
- They are leaders and actively know how to seek and build partnerships with community groups and businesses.
- They work with other professionals on instructional policy, curriculum development and staff development.
- They can evaluate school progress and the allocation of resources in order to meet state and local education objectives.
- They know how to work collaboratively in the work of the school. (NBPTS, 2002, p. 4)

National Board Certified Teachers, with their documented instructional expertise, are envisioned to take on leadership roles and responsibilities in school, district, and state venues.

The NBPTS was frequently discussed in the literature as tied to teacher leadership. Cannata, McCrory, Sykes, Anagnostopoulos, and Frank (2012) surveyed 1,282 elementary teachers in two states and found that National Board Certified Teachers in their study were more engaged in leadership than their peers, but could not find a connection to their leadership influencing school change. They did, however, find that National Board Certified Teachers engage in more leadership activities at the local and state level than teachers who are not board certified. This leads to “a potential paradox about the nature of teacher leadership if greater engagement in leadership activities does not lead to enhanced influence over school policy” (Cannata et al., 2012, p. 483).

Dozier (2007) examined highly accomplished teachers in the United States. Of those completing the survey in this study, 57% were National Board Certified and 51% were national teachers of the year. The results of the survey indicated that 84% mentored new teachers and 97% conducted professional development for colleagues. Dozier found that in addition to self-efficacy and locus of control, teacher willingness to change is also important to teacher leadership. Frank et al. (2008) pursued the question of whether National Board Certification affects the way National Board Certified Teachers help colleagues and found that National Board Certified Teachers assist other teachers approximately 6% more than uncertified colleagues.

Many teachers claim that the process of completing National Board Certification provides excellent professional development (Lustik & Stykes, 2006; Place & Coskie, 2006). Elfers and Plecki (2006) reported that National Board Certified Teachers held greater confidence in their ability to prepare students for state assessments, manage diverse learners, and teach the



official curriculum. Loeb, Elfers and Plecki (2010) found that the majority of teachers studied reported greater involvement in leadership activities at the district level as a result of National Board Certification.

The literature review concludes that teacher leadership is essential to a successful school in which student learning is the main goal. Teachers are vital participants in improving student achievement. The concept of teacher leadership recognizes that all teachers can become leaders and that their ability to lead has significant impact on student learning. At the concept's most practical level, it provides a way that teachers can work together in order to enhance student learning. At its most profound level, teacher leadership provides a new level of professionalism based on mutual support and recognition.

In Chapter 3, the research question and rationale for using qualitative research is discussed. In addition, the study population and sampling procedures are described. Further data collection methods are discussed.

## CHAPTER 3

### METHODOLOGY

This study sought to further develop the research on teacher leadership by closely examining the views of National Board Certified Teachers compared to teachers who are not National Board Certified in the state of Illinois. The literature on teacher leadership supports that National Board Certified Teachers are teacher leaders by definition. By closely examining the views of both groups of teachers, I sought to examine what is working within school culture to support teachers in their efforts to be teacher leaders. In examining these views, currently practicing teachers and school administrators can foster internal environments in which teacher leadership can flourish. This chapter presents a detailed description of the research design, population and sample, instrumentation, data-collection procedures, and rationale for data-analysis methods.

#### **Research Question**

One question drove this study.

Using the Teacher Leadership School Survey, how do National Board Certified Teachers' views on teacher leadership, compare to views on teacher leadership of teachers who are not National Board Certified, in the state of Illinois?

### **Instrument**

Permission was obtained from the authors to employ Katzenmeyer and Moller's (2001) Teacher Leadership School Survey, allowing me to measure teachers' perceptions of how their own schools modeled effective practices in supporting teacher leadership (Appendix A).

The Teacher Leadership School Survey created by Katzenmeyer and Moller (2001) was used to measure teachers' perceptions of how their schools model effective practices in supporting teacher leadership. These areas or dimensions that support teacher leadership included (a) developmental focus, (b) recognition, (c) autonomy, (d) collegiality, (e) participation, (f) open communication, and (g) a positive environment. Katzenmeyer and Moller (2001) incorporated the seven dimensions in the survey with each having seven items describing areas that support teacher leadership.

In their work with over 5,000 teacher leaders, Katzenmeyer and Moller (2001) learned that schools vary in the degree to which they support teacher leadership. Teachers who participated in the study were asked to respond to 49 statements in the Teacher Leadership School Survey. Participants were given five choices for each statement to determine the occurrence of the dimension in their respective school. The choices included (a) *never*, (b) *rarely*, (c) *sometimes*, (d) *often*, and (e) *always*.

Katzenmeyer and Moller (2001), conducted extensive research with teacher leaders. The researchers sought to determine if differences in school cultures supported teacher leadership in a greater or smaller capacity and if the extent that teacher leadership can be exhibited, depended on the context in which it takes place. Through previous research, Katzenmeyer and Moller determined that teachers who are leaders are critical change agents in schools. They developed the survey in an effort to improve teacher relationships and improve organizational structures.

Once trial survey items were created, Katzenmeyer and Moller (2001) employed experts to establish the content validity of the Teacher Leadership School Survey. A sample of teachers ( $n > 300$ ) completed the initial survey. The experts identified scales through factor analysis, principal components analysis, varimax rotation, and an oblique (promax) rotation. In the end, 49 scale items were developed.

After taking steps to assure content validity, the authors sought to determine if the 49 scale items were reliable. Experts employed by the authors used Cronbach's alpha (internal consistency) reliability, as the criterion. Three hundred twelve teachers from 12 schools completed the final version of the Teacher Leadership School Survey. The panel used the Statistical Analysis System (SAS) to complete reliability estimates. Results indicated that the seven dimensions of the Teacher Leadership School Survey have above average reliability ranging from .83 to .93.

This study used the Teacher Leadership School Survey as the instrument to gain better understanding of participants who are National Board Certified Teachers and who are not National Board Certified and how both groups do or do not put the seven dimensions into practice.

### **Data Collection and Procedures**

The participants in this study who have achieved National Board Certification must have at least 3 years of teaching experience in order to apply for the certification. Certification involves an extensive application and portfolio process.

This study explored the views of both Nationally Board Certified Teachers and teachers who are not National Board Certified from Illinois. Illinois ranks 6<sup>th</sup> in the nation in its total number of National Board Certified Teachers achieving National Board Certification (NBPTS,

2015). In 2013, 261 teachers in Illinois achieved National Board Certification, representing a 4.68 increase over the previous years' total (NBPTS, 2015). The Illinois Excellent Teaching Act provides financial support (up to \$2,000) for candidacy fees. Some school districts throughout Illinois provide National Board Certified Teachers with financial incentives once they achieve certification.

There is no state or national data base with identifying information for those teachers who have completed National Board Certification. Each year, Illinois State University releases identifying information for those teachers in the state of Illinois who have been certified. This information lists teachers' names, certification area, and school districts. I used the lists from Illinois State University for those reaching certification in 2014 and 2015 to gain contact information for participants who are National Board Certified. The Internet was used to find the school address of 100 randomly selected teachers on the lists.

One hundred randomly selected teachers from the state of Illinois were selected using the Illinois state website [www.illinois.gov/education/Pages/SchoolDistrictWebsites.aspx](http://www.illinois.gov/education/Pages/SchoolDistrictWebsites.aspx). Potential participants from both groups were mailed the Teacher Leadership School Survey (Katzenmeyer & Moller, 2001) and asked to complete the survey and return in a postage paid envelope. Additional demographic information was obtained from participants (see Appendix A).

Prior approval was obtained from the Institutional Review Board of Indiana State University prior to implementing the research. Participants were sent the consent agreement via mail with the survey tool (see Appendix B).

The confidentiality of each participant was maintained throughout the study. No identifying information was gathered from the returned surveys. Participant data and any identifying information will be kept in a locked cabinet and kept on a password protected

computer during the research period. After research was completed, all data was kept for 2 years in a rented safety deposit box at a convenient bank for the researcher. At the end of 2 years, data was removed from data storage and shredded and destroyed.

### **Data Analysis**

This study utilized a cross-sectional survey designed to assess the individual and organizational factors that influence teacher leadership qualities. Cross-sectional studies focus on one group at one point in time (Hagan, 2006). Cross-sectional design requires a limited amount of time from research participants. The survey method is the most widely used technique for gathering data in the social sciences (Neuman, 2004). The survey method is appropriate to ask individuals to self-report about expectations, characterizations, and opinions (Neuman, 2004). The purpose of the survey method for this study was to generate quantitative or numerical data about teachers' perceptions and behaviors about leadership that could be statistically analyzed.

A self-administered mail survey method was the most appropriate method for this study. I was able to access National Board Certified teachers and teachers who were not certified from across the state of Illinois with ease. Members of the sample population were literate by definition and could interpret survey questions. Self-administered surveys allow respondents to complete questionnaires at their own convenience. A self-addressed-stamped envelope was provided to the respondents to encourage respondents to return their completed surveys. Dillman (2007) suggested personalizing correspondence between researchers and potential respondents. I signed each cover letter in blue ink to distinguish it from the rest of the black and white within the copied document.

I sought to determine if teacher leadership qualities were due to years of experience or National Board Certification. Data were statistically analyzed using SPSS. One-way analysis of

covariance (ANCOVA) with years of experience as the covariate and certification levels as an independent variable was used within each of the seven dimensions.

I provided consistent measurement of the concepts under investigation. Each respondent completed an identical survey for data collection. Response categories were easy to comprehend and easy to complete. Surveys included clear directions in an easy to understand language.

Reliability of the measures used for this study

### **Summary**

By constructing a conceptual framework for teacher leadership that will be grounded in the review of the literature, I provided a clear trajectory suggesting that teachers who lead may contribute to a better understanding of a school culture in which teacher leadership is cultivated and encouraged. “The most reliable, useful, proximate, and professional help resides under the roof of the schoolhouse with the teaching staff itself” (Barth, 2001, p. 445). Teacher leadership is one of the most powerful ways in which school change and improved student and teacher learning can be attained (Katzenmeyer & Moller, 2001). Determining ways that teacher leaders can be nurtured and supported is vital for enhanced student learning, which is the foundation that will drive this study.

## CHAPTER 4

### RESULTS

The present study was designed to gain understanding of both teachers who have completed National Board Certification and teachers who have not in the state of Illinois in regards to their perceptions on teacher leadership in the schools they are teaching. Chapter 4 includes the results of this research study. Specific themes and pattern emerged during the analysis of collected data.

The quantitative data for the study was collected through the use of the Teacher Leadership School Survey (Katzenmeyer & Moller, 2001). Demographic information was gathered from the participants, including years of experience and if the school was in an urban, suburban, or rural location. One hundred surveys were mailed to teachers who were randomly selected from teachers completing National Board Certification in 2014 and 2015. One hundred surveys were also mailed to teachers who were randomly selected from an Illinois educator data base. Twenty-two surveys were returned from teachers who replied they had completed the National Board Certification process. Eighteen surveys were returned from teachers who replied they were not certified in this process. Demographic data gathered from participants included the type of school they taught in (urban, suburban, or rural), and the range of experience was categorized from 1 to 5 years to 20 plus years.



Previous research has suggested that when schools empower teachers to assume leadership roles, collaborative cultures flourish and teachers work in partnership with school administrators (Crowther et al., 2002). Katzenmeyer and Moller (2001) asserted that teachers have the potential to be dynamic leaders in their schools, thereby enhancing the possibility of school reform.

### **Data Collection Review**

Forty qualified individuals confirmed their participation in this study. Twenty-two participants completed National Board Certification and 18 participants had not. Years of experience for National Board Certified Teachers ( $N = 22$ ) were fairly evenly distributed between 6-10 years of experience, 11-15 years of experience, and 16-20 years of experience. Teachers who were not certified ( $N = 18$ ) concentrated at 11-15 years with fewer teachers in the other ranges.

When examining the years of experience of National Board Certified Teachers, no teachers responded to the survey had 1-5 years of experience, eight had 6-10 years of experience, eight had 11-15 years of experience, six had 16-20 years of experience, and zero had 21 plus years of experience (see Figure 1). National Board Certification requires at least 3 years teaching experience in order to apply for the process. The certification process requires at least 1 year. This may explain no responses in the 1-5 year category.

The totals for the group, teachers who had not completed the certification and responded to the survey were: one in the 1-5 years of experience category, three with 6-10 years, ten with 11-15 years of experience, four with 16-20 years of experience, and zero with 21 plus years of experience (see Figure 1).

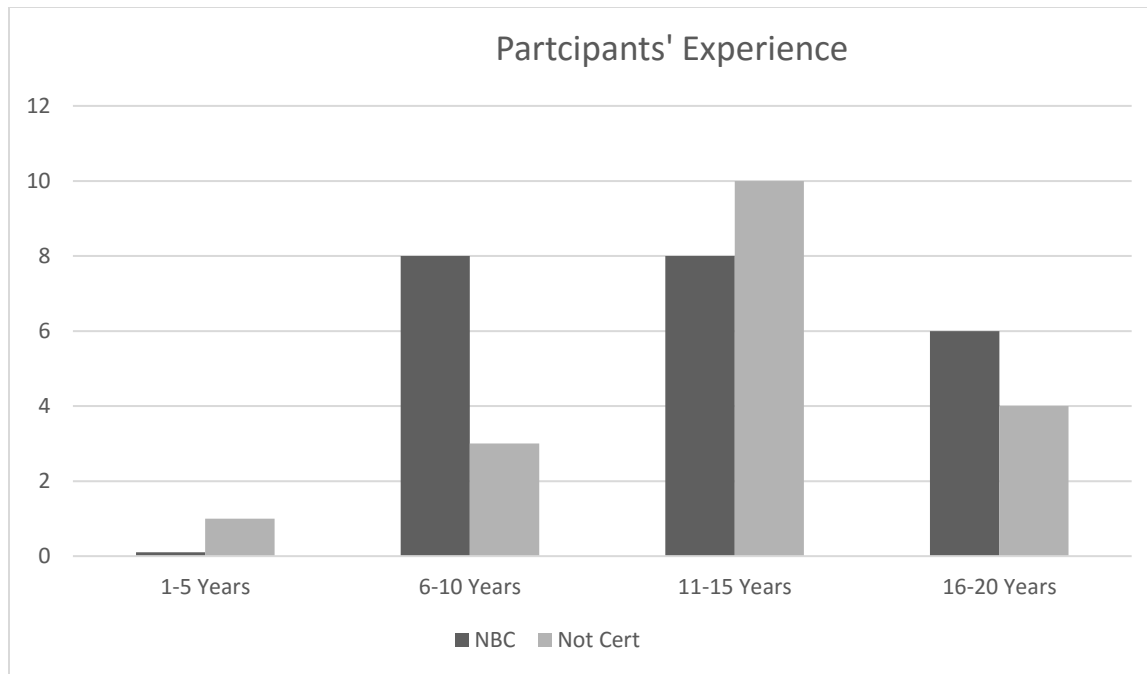


Figure 1. *Frequency of participants' years of experience by certification group.*

When asked to describe their school location type, 13 National Board Certified Teachers taught in an urban location, five in a suburban location, and four in a rural location. Three teachers who were not certified taught in an urban location, seven in a suburban location, and eight in a rural location (see Figure 2).

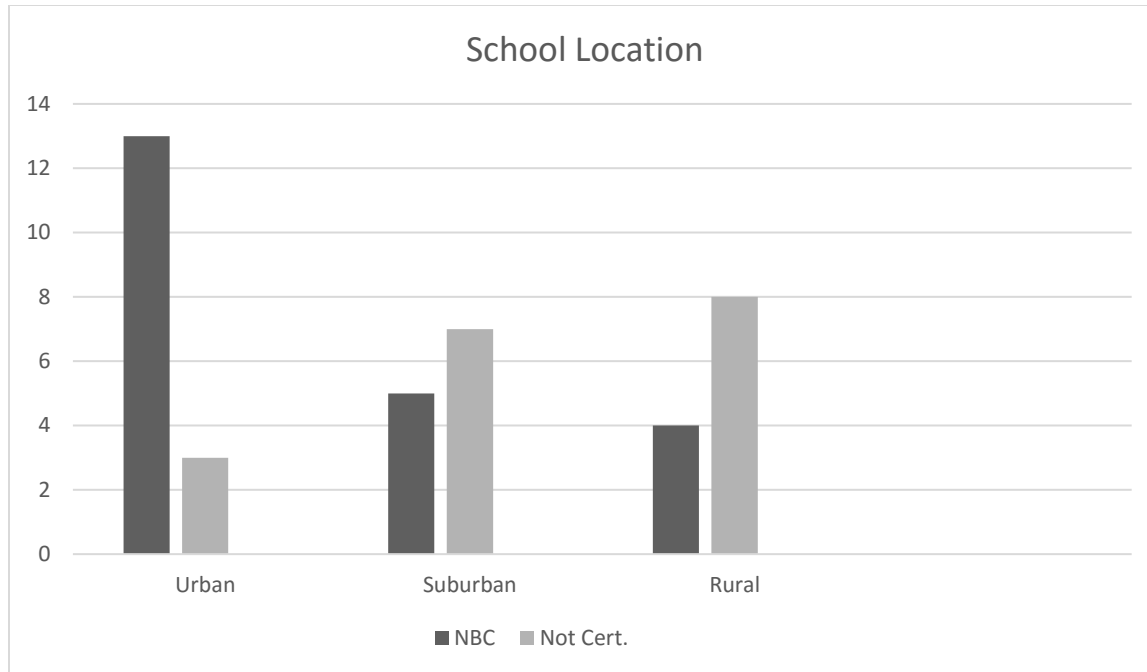


Figure 2. *Frequency of participants' school location by certification group.*

### **Teacher Leadership School Survey**

The Teacher Leadership School Survey (Katzenmeyer & Moller, 2001) is a 49-item survey with seven dimensions (see Appendix A). The seven dimensions, each containing seven questions, are Developmental Focus, Recognition, Autonomy, Collegiality, Participation, Open Communication, and Positive Environment.

Data from the returned surveys were input into a SPSS data file to conduct descriptive analysis by examining the means and frequencies of each survey question. The survey contains Likert-type responses ranging from (1) *never*, (2) *rarely*, (3) *sometimes*, (4) *often*, and (5) *always*. Each of the 49 items were examined in addition to the seven dimensions.

When examining the first dimension, Developmental Focus, each of the mean scores for teachers who are National Board Certified are higher than teachers who are not in all seven questions (see Table 2). Provisions of assistance was marked the highest ( $M = 3.91$ ;  $SD = 0.68$ ) and sharing new ideas and strategies ( $M = 3.55$ ;  $SD = 0.60$ ) the lowest by National Board Certified

Teachers. Teachers who were not certified marked administrative support of professional development the highest ( $M = 3.17$ ;  $SD = 0.62$ ) and sharing new ideas and strategies the lowest ( $M = 2.89$ ;  $SD = 0.58$ ). Both groups indicated that sharing new ideas and strategies was the lowest in this dimension.

Table 2

*Dimension 1 Developmental Focus Descriptive Statistics by Certification Group*

Dimension 1	NBC Mean	NBC SD	Not Cert. Mean	Not Cert. SD
1. At my school administrators and teachers try hard to help new teachers be successful.	3.59	0.50	3.06	0.64
2. At my school, teachers are provided with assistance, guidance and coaching if needed.	3.91	0.68	2.94	0.54
3. Administrators at my school actively support the professional development of faculty and staff.	3.68	0.65	3.17	0.62
4. We gain new knowledge and skills through staff development and professional reading.	3.82	0.66	3.06	0.54
5. We share new ideas and strategies we have gained with each other.	3.55	0.60	2.89	0.58
6. Teachers at my school are supportive of each other personally and professionally.	3.82	0.66	3.11	0.59
7. Teachers at my school are engaged in gaining new knowledge and skills.	3.86	0.71	3.06	0.64

When examining the second dimension, Recognition, each of the mean scores for teachers who were National Board Certified are higher than teachers who are not in all seven questions (see Table 3). Administrators have confidence was marked the highest ( $M = 4.32$ ;  $SD = 0.72$ ) and coworkers successes are celebrated ( $M = 3.59$ ;  $SD = 0.73$ ) was the lowest by National Board Certified Teachers. Teachers who were not certified marked administrators have confidence the highest ( $M = 3.22$ ;  $SD = 0.43$ ) and recognition of faculty was the lowest

( $M = 2.83$ ;  $SD = 0.71$ ). Both groups indicated coworkers successes are celebrated was the area in which the demonstrated the highest leadership.

Table 3

*Dimension 2 Recognition Descriptive Statistics by Certification Group*

Dimension 2	NBC Mean	NBC SD	Not Cert. Mean	Not Cert. SD
8. The administrators at my school have confidence in me.	4.32	0.72	3.22	0.43
9. My professional skills and competence are recognized by the administrators at my school.	4.23	0.87	2.94	0.64
10. Other teachers recognize my professional skills and competence.	3.73	0.55	2.89	0.58
11. It is apparent that many of the teachers at my school can take leadership roles.	3.77	0.75	2.94	0.64
12. The ideas and opinions of teachers are valued and respected at my school.	3.86	0.64	2.94	0.54
13. At my school we celebrate each others' successes	3.59	0.73	3.00	0.69
14. Many of the faculty and staff at my school are recognized for their work.	3.91	0.68	2.83	0.71

When examining the third dimension, Autonomy, each of the mean scores for teachers who were National Board Certified are higher than teachers who are not in all seven questions (see Table 4). Support for change to instructional strategies was marked the highest ( $M = 3.86$ ;  $SD = 0.77$ ) and bending rules is possible ( $M = 3.41$ ;  $SD = 0.59$ ) the lowest by National Board Certified Teachers. Teachers who were not certified marked freedom to be innovative the highest ( $M = 2.83$ ;  $SD = 0.62$ ) and bending rules is possible the lowest ( $M = 2.28$ ;  $SD = 0.58$ ). Both groups indicated bending rules is possible is an area in which teacher leadership was lowest.

Table 4

*Dimension 3 Autonomy Descriptive Statistics by Certification Group*

Dimension 3	NBC Mean	NBC SD	Not Cert. Mean	Not Cert. SD
15. In my role as teacher, I am free to make judgments about what is best for my students.	3.73	0.63	2.61	0.61
16. At my school I have the freedom to make choices about the use of time and resources.	3.68	0.57	2.72	0.67
17. I know that we will bend the rules if it is necessary to help children learn.	3.41	0.59	2.28	0.58
18. Teachers are encouraged to take initiative to make improvements for students.	3.64	0.49	2.78	0.55
19. I have input to developing a vision for my school and its future.	3.82	0.66	2.44	0.62
20. At my school teachers can be innovative if they choose to be.	3.73	0.63	2.83	0.62
21. Administrators and other teachers support me in making changes in my instructional strategies.	3.86	0.77	2.72	0.67

When examining the fourth dimension, Collegiality, each of the mean scores for teachers who are National Board Certified were higher than teachers who are not in all seven questions (see Table 5). Teachers discuss strategies and talk about teaching and curriculum were marked the highest ( $M = 3.77$ ;  $SD = 0.69$ ). Teachers observe each other's work ( $M = 2.23$ ;  $SD = 1.02$ ) was the lowest by National Board Certified Teachers. Teachers who were not certified marked teachers discuss strategies and teachers help others with challenges the highest ( $M = 3.00$ ;  $SD = 0.59$ ) and teachers observe each other's work the lowest ( $M = 2.44$ ;  $SD = 0.71$ ). Both groups indicated teachers observe each other's work was the lowest area with teacher leadership.

Table 5

*Dimension 4 Collegiality Descriptive Statistics by Certification Group*

Dimension 4	NBC Mean	NBC SD	Not Cert. Mean	Not Cert. SD
22. Teachers at my school discuss strategies and share materials.	3.77	0.69	3.00	0.59
23. Teachers at my school influence one another's teaching.	3.50	0.86	2.67	0.59
24. Teachers in my school observe one another's work with students.	2.23	1.02	2.44	0.71
25. I talk with other teachers in my school about my teaching and the curriculum.	3.77	0.69	2.94	0.54
26. Teachers and administrators work together to solve students' academic and behavior problems.	3.45	0.65	2.94	0.54
27. Other teachers at my school have helped me find creative ways to deal with challenges I have faced in my classes.	3.45	0.69	3.00	0.59
28. Conversations among professionals at my school are focused on students.	3.45	0.51	2.94	0.73

When examining the fifth dimension, Participation, each of the mean scores for teachers who are National Board Certified are higher than teachers who are not in all seven questions (see Table 6). Administrators seek out opinions and ideas was marked the highest ( $M = 3.59$ ;  $SD = 0.85$ ). Teachers participate in screening new staff members ( $M = 1.41$ ;  $SD = 0.59$ ) was the lowest by National Board Certified Teachers. Teachers who were not certified marked staff understands and uses consensus process ( $M = 2.72$ ;  $SD = 0.58$ ) and consensus process is used before decision making the highest ( $M = 2.72$ ;  $SD = 0.67$ ). Teachers participate in screening new staff members was the lowest ( $M = 2.28$ ;  $SD = 0.90$ ). Both groups indicated teachers participate in screening new staff members was an area in which teacher leadership was lowest.

Table 6

*Dimension 5 Participation Descriptive Statistics by Certification Group*

Dimension 5	NBC Mean	NBC SD	Not Cert. Mean	Not Cert. SD
29. Teachers have input to decisions about school changes.	3.45	0.67	2.50	0.51
30. Teachers have a say in what and how things are done.	3.45	0.60	2.50	0.51
31. Teachers and administrators share decisions about how time is used and how the school is organized.	3.41	0.67	2.61	0.70
32. Teachers and administrators at my school understand and use the consensus process.	3.41	0.67	2.72	0.58
33. Teachers participate in screening and selecting new faculty and/or staff at my school.	1.41	0.59	2.28	0.90
34. My opinions and ideas are sought by administrators at my school.	3.59	0.85	2.56	0.71
35. We try to reach consensus before making important decisions.	3.32	0.57	2.72	0.67

When examining the sixth dimension, Open Communication, each of the mean scores for teachers who are National Board Certified are higher than teachers who are not in all seven questions (see Table 7). Faculty meetings are productive was marked the highest ( $M = 3.73$ ;  $SD = 0.70$ ). Administrator actions lead to awareness ( $M = 3.59$ ;  $SD = 0.50$ ), free expression in school environment ( $M = 3.59$ ;  $SD = 0.50$ ), self-expression is productive ( $M = 3.59$ ;  $SD = 0.50$ ), and teacher discussion leads to problem solving were the lowest by National Board Certified Teachers. Teachers who were not certified marked free expression in school environment ( $M = 3.28$ ;  $SD = 0.50$ ) the highest and staff discussion leads to student and family services was



the lowest ( $M = 2.78$ ;  $SD = 0.55$ ). Both groups indicated that free expression in school environment was an area of high teacher leadership.

Table 7

*Dimension 6 Open Communication Descriptive Statistics by Certification Group*

Dimension 6	NBC Mean	NBC SD	Not Cert. Mean	Not Cert. SD
36. Because teachers and administrators share ideas about our work, I stay aware of what is happening.	3.59	0.50	3.17	0.51
37. At my school everybody talks freely and openly about feeling and opinions they have.	3.59	0.50	3.28	0.58
38. Faculty and staff at my school share their feelings and concerns in productive ways.	3.59	0.59	2.94	0.73
39. Teachers at my school discuss and help one another solve problems.	3.59	0.50	2.89	0.47
40. Faculty and staff talk about ways to better serve our students and their families.	3.64	0.58	2.78	0.55
41. When things go wrong at our school, we try not to blame, but talk about ways to do better the next time	3.73	0.70	3.11	0.68
42. Faculty meeting time is used for discussions and problem solving.	3.64	0.66	3.00	0.59

In examining the seventh dimension, Positive Environment, each of the mean scores for teachers who are National Board Certified are higher than teachers who are not in all seven questions (see Table 8). Teachers are treated as professionals was marked the highest ( $M = 4.14$ ;  $SD = 0.64$ ) and teachers are respected by stakeholders ( $M = 3.55$ ;  $SD = 0.60$ ) the lowest by National Board Certified Teachers. Teachers who were not certified marked teachers are treated as professionals the highest ( $M = 3.28$ ;  $SD = 0.46$ ) and general satisfaction is felt in the work

environment was the lowest ( $M = 3.00$ ;  $SD = 0.49$ ). Both groups indicated that teachers are treated as professionals was a high area in which teacher leadership took place.

Table 8

*Dimension 7 Positive Environment Descriptive Statistics by Certification Group*

Dimension 7	NBC Mean	NBC SD	Not Cert. Mean	Not Cert. SD
43. Teachers are treated as professionals at my school.	4.14	0.64	3.28	0.46
44. Teachers at my school look forward to coming to work every day	3.95	0.49	3.06	0.54
45. There is a general satisfaction with the work environment among teachers at my school.	3.77	0.75	3.00	0.49
46. Teachers and administrators at my school work in partnership.	3.73	0.77	3.11	0.58
47. Teachers at my school are respected by parents, students, and administrators.	3.55	0.60	3.06	0.54
48. The principal, faculty, and staff at my school work as a team.	3.82	0.80	3.17	0.62
49. We feel positive about the ways we are responding to our students' needs.	3.91	0.75	3.22	0.43

When looking at individual questions by group, there are several survey questions which stood out from the others. The National Board Certified responses were generally high. Two questions were marked never, by some of the group. One question: 24) Teachers in my school observe one another's work with students scored a range of never to often. This question mean was 2.23 with a standard deviation of 1.02. The second question was the lowest scoring question by this group: 33) Teachers participate in screening and selecting new faculty and/or staff at my school. This question mean was 1.41 with a standard deviation of 0.59 and a range of never to sometimes. Both of these questions demonstrate areas in which teachers who are National Board Certified did not respond that they participate as teacher leaders.

Overall, there were several high always scores from the group. It should be noted that this group of teachers recently completed the certification process and may have a higher view of their position of leadership with recent acknowledgement.

I examined the results from teachers who are not certified. There were three questions that stood out with *never* responses: “It is apparent that many teachers at my school can take leadership roles.” This question had a range of never to sometimes, with a mean of 2.28 and a standard deviation of 0.58. A second question, “Teachers in my school observe one another’s work with students,” scored a range of *never* to *often*. This question mean was 2.44 with a standard deviation of 0.71. The third low question was, “Teachers participate in screening and selecting new faculty and/or staff at my school.” This question mean was 2.28 with a standard deviation of 0.90 and a range of *never* to *often*. The results from the group of teachers who are not certified indicate these three areas are areas in which they do not feel like they participate as teacher leaders in their schools. It should also be noted that there were no answers in the scale of always, on any question by the group of teachers who are not certified.

In both groups, “Teachers in my school observe one another’s work with students,” “Teachers participate in screening and selecting new faculty and/or staff at my school,” were low scoring. Both groups defined these as areas in which teachers do not consistently participate as teacher leaders.

Within the 49 questions in the Teacher Leadership Survey (Katzenmeyer & Moller, 2009) are seven dimensions of leadership: Developmental Focus, Recognition, Autonomy, Collegiality, Participation, Open Communication, and Positive Environment. Descriptive statistics by dimensions were also gathered. Results were then gathered using ANCOVA with

years of experience levels as the covariate in each case, certification level as the independent variable, and each dimension composite mean as the dependent variable.

### **Dimension 1: Developmental Focus**

The first dimension in the Teacher Leadership School Survey (Katzenmeyer & Moller, 2001) is Developmental Focus and is defined as follows: Teachers are assisted in gaining new knowledge and skills and are encouraged. Teachers are provided with needed assistance, guidance, and coaching.

Using descriptive analysis the aggregate score for Developmental Focus for teachers who are National Board Certified was 26.23 ( $SD = 3.88$ ). Teachers who were not certified had an aggregate score of 21.28 ( $SD = 3.08$ ; see Table 9).

Table 9

#### *Descriptive Analysis Dimension 1 Developmental Focus*

Dimension 1	Mean	SD	N
NBC	26.23	3.88	22
Not Certified	21.28	3.08	18
Total	24.00	4.30	40

Forty participants were assigned to one of two groups to study whether years of experience or National Board Certification related to leadership. Using a one-way ANCOVA with years of teaching experience as the covariate, certification level as the independent variable, and the dimension composite mean as the dependent variable. The covariate of years of experience was significantly related to National Board Certification,  $F(1,37) = 11.12, p < .05$ . National Board Certified Teachers scored significantly higher than teachers who were not certified after controlling for years of experience,  $F(1, 37) = 23.70, p < .05, \eta^2 = .39$  (see Table 10). The effect size was large at .39.

Levene's test of equality and error variances was used to test the assumption. This tests the homogeneity of variance assumption. The significance in Developmental Focus was .079, indicating the assumption was met. In Dimension 1, there is evidence of normality with skewness and kurtosis levels between +1 and -1.

Table 10

*Tests of Between-Subjects Effects Developmental Focus*

Source	Type III Sum of Squares	df	Mean Square	F	Sig.	Partial Eta Squared
Experience	110.32	1	110.32	11.12	.002	.23
Certification	235.15	1	235.15	23.70	.000	.39
Error	367.15	37	9.92			
Total	23760.00	40				

The adjusted mean taking into consideration years of experience of the Developmental Focus dimension was significantly lower for teachers who are not certified. The aggregate score for teachers who are National Board Certified was 26.19 ( $SD = .67$ ). With a 95% confidence interval the lower bound is 24.83 and upper bound 27.56. Teachers who were not certified aggregate score was 21.32 ( $SD = .74$ ). Lower bound score is 19.81 and upper bound 22.82 (see Table 11).

Table 11

*Estimated Marginal Means Developmental Focus*

Certification	Mean	SD	Lower Bound <sup>a</sup>	Upper Bound <sup>a</sup>
NBC	26.19 <sup>b</sup>	0.67	24.83	27.56
Not certified	21.32 <sup>b</sup>	0.74	19.81	22.82

<sup>a</sup>95% confidence interval.

<sup>b</sup>Covariates appearing in the model are evaluated at the following values: years teaching = 4.93.

## Dimension 2: Recognition

The second dimension, Recognition is defined by Katzenmeyer and Moller (2001) as: Teachers are recognized for roles they take and the contributions they make. A spirit of mutual respect and caring exists among teachers. There are processes for the recognition of effective work.

Using descriptive analysis the aggregate score for teachers who are National Board Certified was 27.41 ( $SD = 4.21$ ). Teachers who are not certified aggregate score was 20.78 ( $SD = 3.30$ ; see Table 12).

Table 12

### *Descriptive Analysis Recognition*

Certification	Mean	SD	N
NBC	27.41	4.21	22
Not Certified	20.78	3.30	18
Total	24.43	5.04	40

Forty participants were assigned to one of two groups to study whether years of experience or National Board Certification related to leadership. Using ANCOVA with years of teaching experience as the covariate, certification level as the independent variable, and the dimension composite mean as the dependent variable, the covariate of years of experience was significantly related to National Board Certification,  $F(1,37) = 18.20, p < .05$ . National Board Certified Teachers scored significantly higher than teachers who were not certified after controlling for years of experience,  $F(1, 37) = 41.92, p < .05, \eta^2 = .53$ . The effect size at .53 was large (see Table 13).

Table 13

*Tests of Between-Subjects Effects Recognition*

Source	Type III Sum of Squares	df	Mean Square	F	Sig.	Partial Eta Squared
Experience	183.47	1	183.47	18.20	.00	.33
Certification	425.59	1	422.59	41.92	.00	.53
Error	372.96	37	10.08			
Total	24855.00	40				

Levene's test of equality and error variances was used to test the assumption. This tests the homogeneity of variance assumption. The significance in Recognition was .084, indicating the assumption was met. In Dimension 3, In Dimension 2, there is evidence of normality with skewness levels between +1 and -1. Kurtosis was greater than -1. Interpreting the result as a z score the critical value does not exceed 1.96 so evidence of normality exists.

The adjusted mean taking into consideration years of experience was significantly lower for teachers who are not certified. The aggregate score for teachers who are National Board Certified is 27.37 ( $SD = .68$ ), with a lower bound of 25.99 and an upper bound of 28.74. Teachers who are not certified aggregate score was 20.83 with standard deviation of 0.75, and a lower bound score of 19.31 and upper bound score of 22.35 (see Table 14).

Table 14

*Estimated Marginal Means Recognition*

Certification	Mean	SD	Lower Bound <sup>a</sup>	Upper Bound <sup>a</sup>
NBC	27.37 <sup>b</sup>	0.68	25.99	28.74
Not certified	20.83 <sup>b</sup>	0.75	19.31	22.35

<sup>a</sup>95% confidence interval

<sup>b</sup>Covariates appearing in the model are evaluated at the following values: years teaching = 4.93

### Dimension 3: Autonomy

Katzenmeyer and Moller (2001) define the third dimension of Autonomy as: Teachers are encouraged to be proactive in making improvements and innovations. Barriers are removed and resources are found to support teachers' efforts.

Using descriptive analysis teachers who are National Board Certified aggregate scores are 25.86 ( $SD = 3.76$ ). Teachers who are not certified aggregate score is 18.39 ( $SD = 3.11$ ; see Table 15).

Table 15

#### *Descriptive Analysis Autonomy*

Certification	Mean	SD	N
NBC	25.86	3.76	22
Not Certified	18.39	3.11	18
Total	22.50	5.10	40

Forty participants were assigned to one of two groups to study whether years of experience or National Board Certification related to leadership. Using ANCOVA with years of teaching experience as the covariate, certification level as the independent variable, and the dimension composite mean as the dependent variable. The covariate of years of experience was significantly related to National Board Certification,  $F(1,37) = 12.63, p < .05$ . National Board Certified Teachers scored significantly higher than teachers who were not certified after controlling for years of experience,  $F(1, 37) = 58.31, p < .05, \eta^2 = .61$ . The effect size was at .61 was large (see Table 16).



Table 16

*Tests of Between-Subjects Effects Autonomy*

Source	Type III Sum of Squares	Df	Mean Square	F	Sig.	Partial Eta Squared
Experience	117.25	1	117.25	12.63	.001	.25
Certification	541.53	1	541.53	58.31	.00	.61
Error	343.61	37	9.29			
Total	21264.00	40				

Levene's test of equality and error variances was used to test the assumption. This tests the homogeneity of variance assumption. The significance in Autonomy was .285, indicating the assumption was met. In Dimension 3, there is evidence of normality with skewness levels between +1 and -1. Kurtosis was greater than -1. Interpreting the result as a z score the critical value does not exceed 1.96 so evidence of normality exists.

The adjusted mean taking into consideration years of experience was significantly lower for teachers who are not certified. The adjusted aggregate score was 25.83 ( $SD = .65$ ) with a lower bound score of 24.51 and an upper bound of 27.15. Teachers who are not certified aggregate score was 18.43 ( $SD = .72$ ) with a lower bound score of 16.98 with an upper bound score of 19.89 (see Table 17).

Table 17

*Estimated Marginal Means Autonomy*

Certification	Mean	Standard Deviation	Lower Bound <sup>a</sup>	Upper Bound <sup>a</sup>
NBC	25.83 <sup>b</sup>	0.65	24.51	27.15
Not certified	18.43 <sup>b</sup>	0.72	16.98	19.89

<sup>a</sup>95% confidence interval.

<sup>b</sup>Covariates appearing in the model are evaluated at the following values: years teaching = 4.93.

#### Dimension 4: Collegiality

Katzenmeyer and Moller (2001) define the fourth dimension, Collegiality, as follows:

Teachers collaborate on instructional and student-related matters. Examples of collegial behavior include teachers discussing strategies, sharing materials, or observing in one another's classroom.

Teachers who are National Board Certified aggregate score in this dimension was 24.18 ( $SD = 4.31$ ). Teachers who are not certified scored an aggregate score of 19.94 ( $SD = 3.19$ ; see Table 18).

Table 18

##### *Descriptive Analysis Collegiality*

Certification	Mean	SD	N
NBC	24.18	4.31	22
Not Certified	19.94	3.19	18
Total	22.28	4.36	40

Forty participants were assigned to one of two groups to study whether years of experience or National Board Certification related to leadership. Using ANCOVA with years of teaching experience as the covariate, certification level as the independent variable, and the dimension composite mean as the dependent variable, the covariate of years of experience was significantly related to National Board Certification,  $F(1,37) = 6.53, p < .05$ . National Board Certified Teachers scored significantly higher than teachers who were not certified after controlling for years of experience,  $F(1, 37) = 13.34, p < .05, \eta^2 = .27$ . The effect size at .27 was large (see Table 19).

Table 19

*Tests of Between-Subject Effects Collegiality*

Source	Type III Sum of Squares	df	Mean Square	F	Sig.	Partial Eta Squared
Experience	84.31	1	84.31	6.53	.015	.15
Certification	172.24	1	172.24	13.34	.001	.27
Error	477.91	37	12.92			
Total	739.98	39				

Levene's test of equality and error variances was used to test the assumption. This tests the homogeneity of variance assumption. The significance in Collegiality was .033. This presents some problem with homogeneity of variance. In Dimension 4, there is evidence of normality with skewness and kurtosis levels between +1 and -1.

The adjusted mean was significantly lower. The aggregate score of teachers who are National Board Certified was 24.15 ( $SD = .77$ ) with a lower bound score of 22.60 and an upper bound of 25.71. Teachers who are not certified aggregate score was 19.98 ( $SD = .85$ ), with a lower bound of 18.26 and an upper bound score of 21.70 (see Table 20).

Table 20

*Estimated Marginal Means Collegiality*

Certification	Mean	SD	Lower Bound <sup>a</sup>	Upper Bound <sup>a</sup>
Nation Board Certified	24.15 <sup>a</sup>	0.77	22.60	25.71
Not certified	19.98 <sup>a</sup>	0.85	18.26	21.70

<sup>a</sup>95% confidence interval.

<sup>b</sup>Covariates appearing in the model are evaluated at the following values: years teaching = 4.93.

**Dimension 5: Participation**

Katzenmeyer and Moller (2001) define the fifth dimension, Participation, as follows:

Teachers are actively involved in making decisions and having input on important matters.

Department chairpersons, team leaders, and other key leaders are selected with the participation of teachers.

Teachers who are National Board Certified had an aggregate score of 22.05 ( $SD = 3.79$ ).

Teachers who are not certified scored an aggregate score of 17.89 ( $SD = 3.85$ ; see Table 21).

Table 21

*Descriptive Analysis Participation*

Certification	Mean	SD	N
NBC	22.05	3.79	22
Not Certified	17.89	3.85	18
Total	20.22	4.46	40

Forty participants were assigned to one of two groups to study whether years of experience or National Board Certification related to leadership. Using ANCOVA with years of experience levels as the covariate, certification level as a dependent variable, and the dimension composite mean as the dependent variable, teachers who are National Board Certified,  $F(1,37) = 5.79$ ,  $p < .05$ . National Board Certified Teachers scored significantly higher than teachers who were not certified after controlling for years of experience,  $F(1, 37) = 12.85$ ,  $p < .05$ ,  $\eta^2 = .26$ . The effect size at .26 was large (see Table 22).

Levene's test of equality and error variances was used to test the assumption. This tests the homogeneity of variance assumption. The significance in Participation was .81, indicating the assumption was met. In Dimension 5, there is evidence of normality with skewness and kurtosis levels between +1 and -1.

Table 22

*Tests of Between-Subjects Effects Participation*

Source	Type III Sum of Squares	Df	Mean Square	F	Sig.	Partial Eta Squared
Experience	74.74	1	74.74	5.79	.021	.14
Certification	165.94	1	165.94	12.85	.001	.26
Error	477.99	37	12.92			
Total	723.78	39				

The adjusted mean taking into consideration years of experience was significantly lower for teachers who are not certified. National Board Certified Teachers aggregate score was 22.02 ( $SD = .77$ ) with a lower bound score of 20.47 and upper bound 23.57. Teachers who are not certified scored an aggregate score of 17.92 ( $SD = .85$ ) with a lower bound of 16.21 and an upper bound of 19.64 (see Table 23).

Table 23

*Estimated Marginal Means Participation*

Certification	Mean	SD	Lower Bound <sup>a</sup>	Upper Bound <sup>a</sup>
NBC	22.02 <sup>a</sup>	.77	20.47	23.57
Not certified	17.92 <sup>a</sup>	.85	16.21	19.64

<sup>a</sup>95% confidence interval.

<sup>b</sup>Covariates appearing in the model are evaluated at the following values: years teaching = 4.93.

**Dimension 6: Open Communication**

Katzenmeyer & Moller (2001) defined the Open Communication dimension as follows: Teachers send and receive information relevant to the effective functioning of the school in open, honest ways. Teachers feel informed about what is happening in the school. Teachers easily share opinions and feelings. Teachers are not blamed when things go wrong.

Using descriptive analysis, teachers who are National Board Certified had an aggregate score of 25.36 ( $SD = 3.58$ ). Teachers who are not certified had an aggregate score of 21.17 ( $SD = 3.09$ ; see Table 24).

Table 24

*Descriptive Analysis Open Communication*

Certification	Mean	SD	N
NBC	25.36	3.58	22
Not Certified	21.17	3.09	18
Total	23.48	3.94	40

Forty participants were assigned to one of two groups to study whether years of experience or National Board Certification related to leadership. Using ANCOVA with years of experience levels as the covariate, certification level as a dependent variable, and the dimension composite mean as the dependent variable, the covariate of years of experience was significantly related to National Board Certification,  $F(1,37) = 11.36, p < .05$ . National Board Certified Teachers scored significantly higher than teachers who were not certified after controlling for years of experience,  $F(1, 37) = 18.87, p < .05, \eta^2 = .34$ . The effect size at .34 was large (see Table 25).

Levene's test of equality and error variances was used to test the assumption. This tests the homogeneity of variance assumption. The significance in Open Communication was .023, indicating the assumption was met. In Dimension 6, there is evidence of normality with skewness and kurtosis levels between +1 and -1.

Table 25

*Tests of Between-Subjects Effects Open Communication*

Source	Type III Sum of Squares	Df	Mean Square	F	Sig.	Partial Eta Squared
Experience	101.39	1	101.39	11.36	.002	.24
Certification	168.41	1	168.41	18.87	.000	.34
Error	330.20	37	8.92			
Total	605.98	39				

The adjusted mean taking into consideration years of experience was significantly lower for teachers who are not certified. Teachers who are National Board Certified had an aggregate score of 25.33 ( $SD = .64$ ) with a lower bound score of 24.04 and an upper bound score of 26.62. Teachers who are not certified aggregate score was 21.21 ( $SD = .70$ ), with a lower bound of 19.78 and an upper bound 22.63 (see Table 26).

Table 26

*Estimated Marginal Means Open Communication*

Certification	Mean	SD	Lower Bound <sup>a</sup>	Upper Bound <sup>a</sup>
NBC	25.33 <sup>b</sup>	0.64	24.04	26.62
Not certified	21.21 <sup>b</sup>	0.70	19.78	22.63

<sup>a</sup>95% confidence interval.

<sup>b</sup>Covariates appearing in the model are evaluated at the following values: years teaching = 4.93.

**Dimension 7: Positive Environment**

Katzenmeyer and Moller (2001) defined the seventh dimension of leadership, Positive Environment, as follows: There is general satisfaction with the work environment. Teachers feel respected by one another, by parents, students, and administrative leadership. Appointed or informed teams work together effectively in the interest of students.

Using descriptive statistics, teachers who are National Board Certified had an aggregate score of 26.86 ( $SD = 4.17$ ). Teachers who are not certified had an aggregate score of 21.89 ( $SD = 3.01$ ; see Table 27).

Table 27

*Descriptive Analysis Positive Environment*

Certification	Mean	SD	N
NBC	26.86	4.17	22
Not Certified	21.89	3.01	18
Total	24.63	4.42	40

Forty participants were assigned to one of two groups to study whether years of experience or National Board Certification related to leadership. Using a ANCOVA with years of teaching experience as the covariant, certification level as the independent variable, and the dimension composite mean as the dependent variable, the covariate of years of experience was significantly related to National Board Certification,  $F(1,37) = 11.08, p < .05$ . National Board Certified Teachers scored significantly higher than teachers who were not certified after controlling for years of experience,  $F(1, 37) = 22.01, p < .05, \eta^2 = .37$ . The effect size at .37 was large (see Table 28).

Table 28

*Tests of Between-Subjects Effects Positive Environment*

Source	Type III Sum of Squares	df	Mean Square	F	Sig.	Partial Eta Squared
Experience	119.44	1	119.44	11.08	.002	.23
Certification	237.30	1	237.30	22.01	.000	.37
Error	398.93	37	10.78			
Total	763.38	39				

Levene's test of equality and error variances was used to test the assumption. This tests the homogeneity of variance assumption. The significance in Positive Environment was .011, indicating the assumption was met. In Dimension 7, there is evidence of normality with skewness and kurtosis levels between +1 and -1.

The adjusted mean taking into consideration years of experience was significantly lower for teachers who are not certified. Teachers who are National Board Certified aggregate score was 26.83 ( $SD = .70$ ) and a lower bound of 25.41 and upper bound 28.25, while teachers who are not certified had an aggregate score of 21.93 ( $SD = .77$ ) with a lower bound of 20.36 and an upper bound of 23.50 (see Table 29).



Table 29

*Estimated Marginal Means Positive Environment*

Certification	Mean	SD	Lower Bound <sup>a</sup>	Upper Bound <sup>a</sup>
NBC	26.83 <sup>b</sup>	.70	25.41	28.25
Not certified	21.93 <sup>b</sup>	.77	20.36	23.50

<sup>a</sup>95% confidence interval.<sup>b</sup>Covariates appearing in the model are evaluated at the following values: years teaching = 4.93.**Dimension Overview**

The mean scores for each of the seven dimensions measuring teachers' perceptions of how their own schools reflect these dimensions were collected and identified. Higher numerical results on the Teacher Leadership School Survey (Katzenmeyer & Moller, 2001) indicate a school culture that supports the development of teacher leadership. National Board Certified Teachers ranked the dimensions in the following order: Recognition ( $M = 27.41$ ), Positive Environment ( $M = 26.86$ ), Developmental Focus ( $M = 26.23$ ), Autonomy ( $M = 25.86$ ), Open Communication ( $M = 25.36$ ), Collegiality ( $M = 24.18$ ), and ranked last was Participation ( $M = 22.05$ ; see Table 30).

Table 30

*Aggregate Scores by Dimension*

Dimension	NBC Teachers	Teachers Not Certified
Developmental Focus	26.23	21.28
Recognition	27.41	20.78
Autonomy	25.86	18.39
Collegiality	24.18	19.94
Participation	22.05	17.89
Open Communication	25.36	21.17
Positive Environment	26.86	21.89

Teachers who were not certified ranked the dimensions in the following order: Positive Environment ( $M = 21.89$ ), Developmental Focus ( $M = 21.280$ ), Open Communication ( $M =$

21.170), Recognition ( $M = 20.78$ ), Collegiality ( $M = 19.94$ ), Autonomy ( $M = 18.39$ ), and Participation ( $M = 17.89$ ) was ranked last by this group.

National Board Certified Teachers scored higher in all dimensions. Both National Board Certified Teachers and teachers who are not certified scored Participation as their lowest dimension.

### **Summary**

This study involved both National Board Certified Teachers and teachers who have not completed the certification process in the state of Illinois. The survey instrument is both reliable and valid. The review of data revealed information that will aid administrators in creating environments that will foster teacher leadership.

## CHAPTER 5

### CONCLUSIONS, IMPLICATIONS AND RECOMMENDATIONS

The purpose of this quantitative study was to explore views of teachers who are National Board Certified and teachers who are not certified, in the state of Illinois, on teacher leadership in their schools. Participants had various years of experience and worked in urban, suburban, and rural schools throughout the state. This chapter will include an overview of previous chapters. Chapter 5 contains interpretations and recommendations based on the results obtained from the completed research.

#### **Overview Chapters 1 Through 4**

This study provided an initial step in understanding the relationship between National Board Certification and teacher leadership. Chapter 1 introduced background information on teacher leadership, purpose of the study, significance of the study, research question, and limitations. Chapter 2 included a comprehensive literature review that outlined teacher leadership and National Board Certification.

In Chapter 3, a justification and appropriateness of the research method and design was provided. Chapter 3 described participants and the survey instrument. Finally, the previous chapter presented the analysis of the data derived from survey responses that will add to the growing body of knowledge regarding teacher leadership and National Board Certified Teachers.

## **Discussion**

The purpose of this study was to determine if teachers who have completed National Board Certification exhibited a higher sense of teacher leadership in Illinois schools. The purpose of this study was addressed through the responses provided by the forty participants.

School cultures that promote teacher leadership attend to the following dimensions: Developmental Focus, Recognition, Autonomy, Collegiality, Participation, Open Communication, and Positive Environment (Katzenmeyer & Moller, 2001). Administrators and school leaders who work with teachers in a supportive culture, encourage norms of practice that help expand and advance teacher leadership. A new working relationship between administrators and teachers are cultural norms that exist in schools robust with teacher leadership. These norms of practice enable teachers who are leader-oriented to assume leadership roles.

As teachers are empowered to function as leaders, they create a higher level of practice that address increased student learning. This conceptual framework of teacher leadership provides support to change what positively influences teacher practice and therefor student learning. This improvement is needed in schools across the country.

A supportive culture is needed that embraces change. Change is an antecedent to improving schools. A supportive culture allows teachers to emerge as leaders and make substantive decisions that impact teacher practice and student learning. A roadblock to this framework is the fear that “the inclusion of teachers and others in decision making is not as comfortable as when this responsibility is placed on a few individuals” (Katzenmeyer & Moller, 2001, p. 27). It is essential for school administrators to create a culture that minimizes this discomfort and empowers teachers to become leaders.

### **Strengths and Limitations**

The overall purpose of conducting research is to advance the understanding of a specific phenomenon, in this case teacher leadership. Providing information about strengths and limitations assists researchers with future research. This section presents the strengths and limitations that correspond to this data collection and analysis.

A strength of the survey was the instrument. Katzenmeyer and Moller (2001) developed the Teacher Leadership School Survey. To address validity and reliability, they employed a panel of experts to establish content validity of the survey. The panel reviewed the data and completed factor analysis to cluster survey items. Factors that had a low score were dropped from the survey. The reliability of the survey was determined using Cronbach's alpha, also referred to as the internal-consistency reliability. Three hundred twelve teachers from 12 schools completed the final version of the survey. The results indicated that the seven dimensions of the Teacher Leadership School Survey have above average reliability ranging from .83 to .93.

One of the limitations of this study is that it sampled only teachers in the state of Illinois. This limits the overall generalizability of the results. Replication of this study among teachers within other geographical locations and within various school districts would serve to substantially increase external validity of these findings.

In addition, the sample included a small response rate. The response rate for teachers who are not National Board Certified was 18% and teachers who are certified was 22%. Both are considered low (Dillman, 2007). Another limitation was a limited data collection method in using only the Teacher Leadership School Survey (Katzenmeyer & Moller, 2001). A limited number of demographic questions were asked of participants including years of experience and a description of school location (urban, suburban, and rural). Finally, although the survey

instrument has been tested for validity and reliability, I did notice some issues with survey questions. For example, “Teachers at my school are respected by parents, students, and administrators,” may be difficult to answer correctly. A teacher may feel highly respectable by administrators and parents, but not feel respected by students. This disparity may make this question difficult to answer.

### **Conclusions**

This study began with a view of teacher leadership as a powerful strategy for implementing positive school change. The findings from this study led the researcher to the conclusion that teachers who have completed National Board Certification are change agents. Study findings and results underscore the importance of school administrators in creating conditions that promote teacher leadership. The results of this study can be used to inform policy makers and administrators about the dimensions of teacher leadership and the importance of National Board Certification. Key findings address nuances of school cultures conducive to teacher leadership.

Gaps were found in the literature with about teachers who have completed National Board Certification. The potential for further research with teachers who are National Board Certified is needed. A problem exists at reaching those teachers who are National Board Certified. I originally sought to use Nationally Board Certified Teachers from across the United States. Due to confidentiality policies, I was unable to obtain contact information from the NBPTS. Because lists of teachers in the state of Illinois who have been certified is published by Illinois State University each year, I was able to contact teachers who recently completed the certification process. Despite limitations, this study does conclude that teachers who have completed National Board Certification do exhibit a higher sense of teacher leadership.

When I examined each dimension, National Board Certified Teachers marked each of the questions higher than teachers who are not certified.

Developmental Focus: Katzenmeyer & Moller (2001) describe this dimension as follows: Teachers are assisted in gaining new knowledge and skills and are encouraged. Teachers are also provided with needed assistance.

As a group, National Board Certified Teachers marked every question higher than teachers who were not certified. Provisions of assistance was marked the highest ( $M = 3.91$ ;  $SD = 0.68$ ) and sharing new ideas and strategies ( $M = 3.55$ ;  $SD = 0.60$ ) the lowest by National Board Certified Teachers. Teachers who were not certified marked administrative support of professional development the highest ( $M = 3.17$ ;  $SD = 0.62$ ) and sharing new ideas and strategies the lowest ( $M = 2.89$ ;  $SD = 0.58$ ). Both groups indicated that sharing new ideas and strategies was the lowest in this dimension.

Recognition: Katzenmeyer & Moller (2001) describe this dimension as follows: Teachers are recognized for the roles they take and the contributions they make. A spirit of mutual respect and caring exists among teachers. There are processes for recognition.

As a group, National Board Certified Teachers marked each question in this dimension higher than teachers who were not certified. Administrators have confidence was marked the highest ( $M = 4.32$ ;  $SD = 0.72$ ) and coworkers successes are celebrated ( $M = 3.59$ ;  $SD = 0.73$ ) was the lowest by National Board Certified Teachers. Teachers who were not certified marked administrators have confidence the highest ( $M = 3.22$ ;  $SD = 0.43$ ) and recognition of faculty was the lowest ( $M = 2.83$ ;  $SD = 0.71$ ). Both groups indicated coworkers successes are celebrated was the area in which the demonstrated the highest leadership.

Autonomy: Katzenmeyer & Moller (2001) describe this dimension as follows: Teachers are encouraged to be proactive in making improvements and innovations. Barriers are removed and resources found to support teachers' efforts.

As a group, National Board Certified Teachers marked each of the questions in the Autonomy dimensions higher than teachers who were not certified. Support for change to instructional strategies was marked the highest ( $M = 3.86$ ;  $SD = 0.77$ ) and bending rules is possible ( $M = 3.41$ ;  $SD = 0.59$ ) the lowest by National Board Certified Teachers. Teachers who were not certified marked freedom to be innovative the highest ( $M = 2.83$ ;  $SD = 0.62$ ) and bending rules is possible the lowest ( $M = 2.28$ ;  $SD = 0.58$ ). Both groups indicated bending rules is possible is an area in which teacher leadership was lowest.

Collegiality: Katzenmeyer & Moller (2001) describe this dimension as follows: Teachers collaborate on instructional and student related matters.

As a group, teachers who were National Board Certified marked every question in the Collegiality dimension higher than teachers who were not certified. Teachers discuss strategies and talk about teaching and curriculum were marked the highest ( $M = 3.77$ ;  $SD = 0.69$ ). Teachers observe each other's work ( $M = 2.23$ ;  $SD = 1.02$ ) was the lowest by National Board Certified Teachers. Teachers who were not certified marked teachers discuss strategies and teachers help others with challenges the highest ( $M = 3.00$ ;  $SD = 0.59$ ) and teachers observe each other's work the lowest ( $M = 2.44$ ;  $SD = 0.71$ ). Both groups indicated teachers observe each other's work was the lowest area with teacher leadership.

Participation: Katzenmeyer & Moller (2001) describe this dimension as follows: Teachers are actively involved in making decisions and having input on important matters.



Department chairpersons, team leaders, and other key leaders are selected with the participation of teachers.

As a group, teachers who were National Board Certified marked every question in the Participation dimension higher than teachers who were not certified. Administrators seek out opinions and ideas was marked the highest ( $M = 3.59$ ;  $SD = 0.85$ ). Teachers participate in screening new staff members ( $M = 1.41$ ;  $SD = 0.59$ ) was the lowest by National Board Certified Teachers. Teachers who were not certified marked staff understands and uses consensus process ( $M = 2.72$ ;  $SD = 0.58$ ) and consensus process is used before decision making the highest ( $M = 2.72$ ;  $SD = 0.67$ ). Teachers participate in screening new staff members was the lowest ( $M = 2.28$ ;  $SD = 0.90$ ). Both groups indicated teachers participate in screening new staff members was an area in which teacher leadership was lowest.

Open Communication: Katzenmeyer & Moller (2001) describe this dimension as follows: Teachers send and receive information to the effective functioning of the school in open, honest ways. Teachers feel informed about what is happening in the school. Teachers easily share opinions and are not blamed when things go wrong.

As a group, teachers who were National Board Certified marked every question in the Open Communication dimension higher than teachers who were not certified. Faculty meetings are productive was marked the highest ( $M = 3.73$ ;  $SD = 0.70$ ). Administrator actions lead to awareness ( $M = 3.59$ ;  $SD = 0.50$ ), free expression in school environment ( $M = 3.59$ ;  $SD = 0.50$ ), self-expression is productive ( $M = 3.59$ ;  $SD = 0.50$ ), and teacher discussion leads to problem solving were the lowest by National Board Certified Teachers. Teachers who were not certified marked free expression in school environment ( $M = 3.28$ ;  $SD = 0.50$ ) the highest and staff discussion leads to student and family services was the lowest ( $M = 2.78$ ;  $SD = 0.55$ ). Both

groups indicated that free expression in school environment was an area of high teacher leadership.

Positive Environment: Katzenmeyer & Moller (2001) describe this dimension as follows: There is general satisfaction with the work environment. Teachers feel respected by one another, by parents, students, and administrative leadership. Appointed or informed teams work together effectively in the interest of students.

As a group, teachers who were National Board Certified marked each of the questions in the Positive Environment dimension higher than teachers who were not certified. Teachers are treated as professionals was marked the highest ( $M = 4.14$ ;  $SD = 0.64$ ) and teachers are respected by stakeholders ( $M = 3.55$ ;  $SD = 0.60$ ) the lowest by National Board Certified Teachers. Teachers who were not certified marked teachers are treated as professionals the highest ( $M = 3.28$ ;  $SD = 0.46$ ) and general satisfaction is felt in the work environment was the lowest ( $M = 3.00$ ;  $SD = 0.49$ ). Both groups indicated that teachers are treated as professionals was a high area in which teacher leadership took place.

### **Suggestions for Future Research**

The estimated total number of teachers in the United States is 3.1 million (U.S. Department of Education, 2015). The total number of National Board Certified Teachers in the United States is 111,488 (NBPTS, 2015). The estimated percent of teachers in the United States who are National Board Certified is 3.6%. The total number of teachers in the state of Illinois is 135,704 (U.S. Department of Education, 2015). Illinois ranks sixth in the total number of National Board Certified Teachers with 6,345 (NBPTS, 2015).

Thirty states offer assistance with application fees or financial incentives for completion. Mississippi (ranked 7<sup>th</sup>) offers annual salary increase for the life of the certification, and North

Carolina (ranked 1<sup>st</sup>) offers a salary 12% higher than base for the life of the certificate (NBPTS, 2015). Colorado (ranked 23<sup>rd</sup>), Hawaii (ranked 31<sup>st</sup>), New York (ranked 17<sup>th</sup>), Washington (ranked 4<sup>th</sup>), and Wisconsin (ranked 20<sup>th</sup>) offer additional salary to National Board Certified Teachers working in low-performing schools. Illinois (6<sup>th</sup>), Ohio (ranked 8<sup>th</sup>), New Mexico (ranked 21<sup>st</sup>), and Wisconsin (ranked 20<sup>th</sup>) require National Board Certification in order to achieve the highest level of state licensure, sometimes known as the mastery level (NBPTS, 2015).

If a national data base existed of teachers who are National Board Certified, the potential for a larger number of participants in future studies would be possible. I also suggest gathering more demographic information from participants. Future research could include an examination of teachers' years of education and/or if teacher leaders are teaching in an elementary, middle, or high school.

I suggest the need for additional research on teachers who have completed the National Board Certification and teacher leadership. In addition, the researcher suggests a mixed method study to explore teachers' perceptions with more in depth questions about leadership opportunities. Teacher leadership has become a growing trend in research (Danielson, 2007). As more teachers pursue National Board Certification and/or seek leadership opportunities, further research will identify the most effective use of the vast resource of teacher leadership.

### **Recommendations for Future Practice**

The research and this study have demonstrated that teachers who are National Board Certified are a valuable asset in the field of education. Two areas stood out in the data that administrators can improve. Both teachers who are National Board Certified and teachers who are not, expressed a lack of participation in selecting new faculty and/or staff, as well as

observing one another's work. Teachers who were not National Board Certified indicated that it was not apparent that teachers at their school could take leadership roles.

National Board Certified Teachers take on leadership roles that include coaching and mentoring others, and developing programs aimed at improving student learning (Freund, Russell, & Kavulic, 2005). It is important for decision makers to support this additional certification. Policy makers should provide resources to help teachers with the cost of certification including allocating funds for reimbursement. Loan programs could be created to cover the cost of fees. Districts and states should offer salary increases for the life of the certificate and/or additional salary for National Board Certified Teachers in low-performing schools. States should also offer mastery or top-tier state certificates.

School districts and states should allow National Board Certification as a replacement for traditional professional development requirements. It is also important to recognize teachers who have completed this grueling certification at the local, state, and national level. National Board Certified Teachers give valuable input on curriculum decisions, organize professional development opportunities, chair departments, engage with the community, reach out to parents, and serve as a faculty voice to policy makers and other stakeholders (Sykes et al., 2006). This valuable asset should be rewarded and recognized.

Administrators should also consider the findings in this study when considering teachers who are not National Board Certified. Certainly, the teachers who have not completed the additional certification process who were participants in this study indicated areas in which administrators can make changes. All teachers, whether National Board Certified or not certified can impact student learning. Efforts by administrators to improve the climate and culture of schools through promoting teacher leadership will only enhance student learning. What applies

to promoting teacher leadership in each of the dimensions for National Board Certified Teachers is also true for teachers who are not certified.

School cultures that support teacher leadership attend to the dimensions of Developmental Focus, Recognition, Autonomy, Collegiality, Participation, Open Communication, and Positive Environment (Katzenmeyer & Moller, 2001). As policymakers and administrators empower teachers to lead, they will awaken the sleeping giant of teacher leadership. Teachers, as classroom experts, and the most valuable resource in schools, are the best hope for improving schools.

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## APPENDIX A: ADDITIONAL DEMOGRAPHIC INFORMATION

Please circle to answer the additional questions in order to gain demographic information;

1. Are you a National Board Certified Teacher? Yes No

2. How many years have you been teaching?

1-5          6-10          11-15          16-20          21+

3. Would you describe your school as urban, suburban or rural?

Urban          Suburban          Rural

## APPENDIX B: INFORMED CONSENT

This study is being conducted by Catherine Eads; a Ph.D. student at Indiana State University, in the department of Teaching and Learning at Indiana State University. As part of my degree requirements, I am writing a dissertation exploring teacher leadership. I want to explore your views of teacher leadership and the environments that promote teacher leadership. I would appreciate your cooperation in participating in my research.

Participation will involve filling out the short questionnaire you received by mail including simple demographic questions and returning the questionnaires and the informed consent in the self-addressed-stamped envelope provided.

The study is completely confidential and participation is voluntary. You do not have to answer any questions you do not want to. The data will also be password-protected and kept secure until it is destroyed after one year. It is important to note that this study will be submitted in partial fulfillment of a Ph.D. degree in Curriculum and Instruction and may also be submitted for publication. You do not have to participate in this study and if you chose not to there will be no consequences.

If you have any questions concerning this study, please contact myself or my supervisor on the contact details shown below.

By completing the questionnaire, it will be assumed that you understand the nature of the study, and that you fully consent to participating. However, if at any time you would like to withdraw your submission, please contact me or my supervisor.

Contact Details:  
Catherine Eads  
217-251-6477  
cspung@sycamores.indstate.edu

Supervisor: Dr. Kevin Bolinger  
812-237-2884  
Indiana State University

I, \_\_\_\_\_ (NAME OF PARTICIPANT).

State that I am over 18 years of age and that I voluntarily agree to participate in research conducted by Catherine Eads, a doctoral student at Indiana State University. The research is being conducted in order to gain insight into the phenomenon of teacher leadership, and what factors in a school culture will promote teacher leadership. The specific task I will ask you to perform is to complete the Teacher Leadership School Survey (Katzenmeyer & Moller, 2001), answer demographic questions, sign this informed consent and return all in the self-addressed-stamped envelope.

Through this informed consent, Catherine Eads has explained the task to me fully and has informed me that I may withdrawal from participation without penalty or prejudice after I return materials. If I feel uncomfortable in any way and/or want to withdraw participation I may inform the researcher and/or the supervisor Dr. Kevin Bolinger.

I understand that there will be no identifying information connected to my survey in order to protect the confidentiality of my responses. I also understand that the researcher will not connect survey responses to me in any way. All contact information will be kept in password protected digital files and destroyed three years after the research is complete.

I understand that I may contact Catherine Eads at 217-251-6477, or her supervisor Dr. Kevin Bolinger at 812-237-2884 if I have any questions or concerns about this study at any time.

PARTICIPANT SIGNATURE: \_\_\_\_\_

DATE: \_\_\_\_\_

## APPENDIX C: CONTENT VALIDITY TLSS

### **Developing the Survey Items and Establishing Content Validity, Scale Names, and Reliability of the Teacher Leadership School Survey (TLSS)**

William G. Katzenmeyer, Professor  
Department of Testing and Research, College of Education  
The University of South Florida, Tampa, Florida, 33620

#### The Instrument:

The Teacher Leadership School Survey (TLSS)  
Published by the Professional Development Center, Inc.  
P. O. Box 46609, Tampa, Florida 33647  
Phone: 1-800-332-2268

#### Primary Resource:

Katzenmeyer, Marilyn & Moller, Gayle. (2001). *Awakening the sleeping giant: Helping teachers develop as leaders* (2nd ed.). Thousand Oaks, CA: Corwin Press

### **Establishing Content Validity: Identifying the Survey Items**

Content validity is concerned with whether the sample of items on the survey is representative of the population of items that constitute the larger body of knowledge about the subject. In this case, to what extent are the items on the TLSS representative of the population of items that might be used to define the context needed in a school to support the development of teacher leadership? The authors desired to establish the content validity of the TLSS through the process by which they chose the items.

Content validity is usually established by content experts. To identify the items, while at the same time creating content validity, a panel of persons with expert level knowledge of teacher leadership was asked to develop items they believed would be useful in assessing readiness for teacher leadership. The panel included both authors of *Awakening the Sleeping Giant*, and two other education professionals experienced in the development of teachers as leaders. The items developed by each member of the panel were combined and examined by all members of the panel, duplicate items were eliminated, some were dropped, and a few added by the members working together.

A large sample of Teachers ( $n > 300$ ) from several schools then responded to the items.

The scales were identified through a series of factor analyses, completed to determine whether clusters of items (factors) could be found that exhibited internal consistency and were minimally correlated with each other. This process ultimately involved principal components analysis, and varimax rotation to simple structure, followed by an oblique (promax) rotation. Seven factors were identified. Items that did not load any factor, and were unrelated to each other were dropped. Items were added where indications of a strong factor were found, but scale length was too small to support the desired level of reliability. A process involving several iterations of this process led to the development of the 49 item scale now published by the Professional Development Center, Inc. Scale names and definitions are included in the second edition of the Katzenmeyer and Moller book cited above.

While predictive validity and concurrent validity are stronger forms of validity than content validity, they were not judged to be feasible in this case. Predictive validity would require that, on the basis of scores on the TLSS, predictions were made about the likelihood that efforts to establish teacher leadership in a school would be successful, and that there would be a positive correlation between the scores on the survey and success of implementation. Unfortunately, this would also require that implementation be attempted not only in schools with high levels of readiness but also in schools with low levels of readiness. This was not judged to be feasible. Concurrent validity requires demonstration of positive correlation between the instrument in question and other instruments that purport to measure the same constructs. The absence of parallel measures led the authors to pursue content validity from the outset of their effort.

### **Establishing Reliability**

Reliability is a necessary but not sufficient condition for the establishment of validity. Having taken steps to assure content validity, the authors took the following steps to determine the extent to which the scales identified through the process above were reliable. While scale reliability was computed many times during the factor analytic process, the authors decided to draw a separate sample to determine the reliability of the final scales. The choice was made to use Cronbach's Alpha (internal consistency) reliability as the criterion. A sample of 312 teachers from 12 schools completed the final version of the TLSS. The Statistical Analysis System (SAS) was used to compute the reliability estimates. The table below presents the Alpha Reliability estimates. Examination of Table 1 reveals that the scales of the TLSS have above average reliability for scales of this type.

Table 1. Internal Consistency (Cronbach Alpha) Reliabilities of the TLSS Scales

Scale Names	Alpha Reliability	Items
Developmental Focus	.87	- 7
Recognition	.88	8 – 14
Autonomy	.87	15 – 21
Collegiality	.83	22 – 28
Participation	.87	29 – 35
Open Communication	.93	36 – 42
Positive Environment	.87	43-49