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A Case Study of the Effects of National Board Certification on School Climate: Perceptions of Teachers, Staff and Administrators

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A CASE STUDY OF THE EFFECTS OF NATIONAL BOARD CERTIFICATION ON SCHOOL CLIMATE: PERCEPTIONS OF TEACHERS, STAFF, AND ADMINISTRATORS

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Title: A Case Study of the Effects of National Board Certification on School Climate: Perceptions of Teachers, Staff, and Administrators

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The purpose of this study was to describe the perceptions of teachers, staff, and administrators of the effects of National Board certification on the climate of a school in a rural setting with a large number of National Board-certified teachers.

Using Hoy and Tartar's (1997) concept of organizational health in elementary schools as a conceptual framework, this study undertook a qualitative case study approach to examine the relationship between organizational health and National Board certification. Participants completed the Organizational Health Inventory for Elementary schools (OHI-E), and the scores were compiled to produce a climate profile. The instrument yielded an overall average score indicating that the school enjoys a healthy climate. Two areas of the instrument focused on congenial relationships and scored in the very high range, while those areas examining collegial relationships scored in the low to very low ranges.

Other data were collected from site observations, interviews, and focus groups. An inductive approach was taken in data analysis using a constant comparative method to develop coding categories of recurring concepts and identification of themes. A creative synthesis of the findings is offered through a richly descriptive case study analysis of teachers and the influence that National Board certification has had on the climate of the school. These data sources upheld the findings of the survey instrument in each of the five subtests. A crystallization concept of

triangulating the data and the creative analytic practice criteria of substantive contribution framed the validity and authenticity of the study.

Findings and conclusions from this case study analysis include the value of large numbers of Nationally Board-certified teachers in one school setting. Qualitative analysis revealed a positive congenial relationship between organizational health and National Board certification. The results showed that NBC had positive effects on climate in the areas of teacher affiliation and collegial leadership. Data also revealed no relationship between National Board certification and collegial and collaborative associations in the school. In the areas of institutional integrity, academic emphasis, and resource influence, the perceptions indicated unhealthy relations.

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Huge thanks to my biggest cheerleader and fan, my mom, who was, as always, available day and night, to listen, to encourage, to cheer. Thanks for being my rock.

And to my children who endured, encouraged, and understood with never a complaint; you are the best….Now I pass the torch.

Dedication

For Mom and Dad:

I dedicate this dissertation to you.

You have been my biggest inspirations.

I hope I have done you proud.

To my children, Ramon, Chelisse, and Romario,

I hope I have passed the torch of inspiration:

“The world is your oyster”

…be smart

I Love you

TABLE OF CONTENTS

LIST OF TABLES

CHAPTER I

INTRODUCTION TO THE STUDY

Introduction

The Federal No Child Left Behind Act (NCLB) of 2001 and the Common Core Standards Initiative of 2009 set as a mandate the elevation of student achievement levels. Underlying this initiative is the concept of teaching that requires educators to reflect on their pedagogy and think differently about instruction and its resulting achievement. Contemporary educators are being asked to teach using methods that are probably unfamiliar to them, both as students and teachers. The success of these initiatives depends on the ability of educators to tailor their ideas about student learning and to reform their own craft to incorporate new and somewhat revolutionary processes (Center on Education Policy, 2008).

Student success is measured through various assessments including state required standardized tests. According to the 2011 National Assessment of Educational Progress (NAEP), less than a third of our country's third-graders read at or above grade level (Center on Education Policy, 2008). Children who read below grade level are at high risk of school failure, thus becoming school dropouts. Dropping out of high school is a potential condemnation of these students to a myriad of poor consequences, from the inability to earn more than minimal salaries throughout the course of their lives to resorting to illegal means of self-support, often resulting in imprisonment, to the very high probability of the cycle repeating as another generation of children are produced. Increasingly, research is showing that almost one third of students are at risk of not graduating high school. For Latinos and African-Americans, who face many social issues, the rate approaches a distressing fifty-three and fifty percent respectively (Dee & Jacob, 2009).

Countless factors contribute to the inordinate number of students performing below grade level. These include student issues, poor parenting, and low-quality teaching. Decades of school reform efforts have been adopted to eliminate these problems without success. Different approaches have been offered to solve the problems, but, according to Koretz and Hamilton (2011), they have often been intentionally ignored. In an attempt to address the problem, coupled with rising pressure from NCLB mandates, and because we are in an era of rapid change, school districts realize the need to provide teachers with professional learning and organizational climates that are conducive to productive student outcomes.

Several factors are making the social and moral obligation of educating all children more complex than ever before. The twenty-first century definition of "educated" is distinctly different from that in the twentieth century. Our schools are also changing drastically due to transiency rates, homelessness, and the number of children whose official language is something other than English. Technological advances, such as the World Wide Web and social media have impacted the knowledge base of the youngest generation and altered what should be taught in schools and how. Many jobs have been sent overseas to low-wage centers like India and China; low-wage jobs in the United States attract immigrants willing to earn the bare minimum; and millions of other jobs have been replaced by technology. The skills needed for adult roles that our children will assume are now quite different than in the past. Therefore, a very close review of how and what is taught is needed, and teachers and administrators must be supported as teaching changes. Ornstein (2007) argued that school administrators and teachers do not completely recognize the critical need for change. But in order to avoid public schools becoming obsolete, some sweeping changes are necessary. This is validated by the current growth of charter schools advocated by political and corporate entities.

One way many school districts attempt to enhance professional development is by using grant money to fund National Board certification for their teachers to identify and maximize their effectiveness (NBPTS, 2012). National Board certification can increase teacher effectiveness through an improved professional and organizational climate.

At local, state, and federal levels, schools struggle to keep pace with the demands of achieving and/or maintaining high student achievement on standardized assessments. Determining the effectiveness of schools is a matter of controversy. Some believe that student success after exiting college is a true measure of success, while others rely on test scores during the years of basic education. Some feel that effectiveness is not computable, and complicating the matter are the myriad factors that can influence student achievement on test instruments (Brown & Spangler, 2006). Some of the factors proven to show a strong correlation with student achievement, such as socio economic status, lie beyond the influence of the school, but schools have no control over the economic make-up of their communities. Fortunately, schools do have some control over practices that influence student success, such as the climate/organizational health of the institution. Studies have found a positive correlation between organizational health and student achievement (Cohen, 2009; Fisher & Fraser, 2009; Hoy & Tarter, 1992; Mitchell, Bradshaw & Leaf, 2010).

Even when strongly influential variables such as socioeconomic status were controlled, organizational health was shown to have a direct positive influence on the achievement of students. Organizational health can be understood as a metaphor for climate. Schools can either have a healthy or an unhealthy climate. Much like a person, schools can go through periods of poor health. Schools can also be healthy in some areas and unhealthy in others, producing an atmosphere that is either generally healthy or unhealthy. Just as a healthy person is usually happy

and energetic, schools with good health enjoy positive outcomes. Organizational health has been defined through the research of Hoy and his colleagues (Hoy, 1990; Hoy & Feldman, 1987; Hoy & Hannum, 1997; Hoy & Hoy, 2013). Building on the work of Miles (1969) and Parsons, Bales, and Shils (1953), Hoy and his fellow researchers mention five components of organizational health in elementary schools. The first is academic emphasis, including high standards for students of all abilities and respect for academic success. The second area is teacher affiliation or a teacher's sense of belonging. Optimally, in a healthy school, teachers would relate in a friendly, enthusiastic atmosphere. The third area of organizational health in elementary schools is resource influence. Resource influence is the ability of the principal to sway his or her supervisors so that teachers have the materials necessary for their tasks. The fourth component is collegial leadership. Collegial leaders are friendly, open, approachable, and fair, and they set high standards for performance. The final area of organizational health is institutional integrity. Institutional integrity is the school's ability to withstand unreasonable demands from teachers, parents, or community organizations. A healthy school has high academic emphasis, teachers who enjoy and are empowered by their jobs, a supportive instructional leader, adequate resources, and freedom from negative external influences on the operation of the school. The concept of organizational health provides a simple framework for improving school systems (Hoy & Hannum, 1997).

Definition of Key Terms

National Board-Certified Teacher (NBCT) - A National Board certified teacher has been acknowledged and certified by the National Board for Professional Teaching Standards as a highly effective educator after undergoing a rigorous assessment process (NBPTS, 2007).

Professional Development - Professional development (PD), for the purpose of this study, is the continuous process of acquiring new knowledge, skills, and qualifications that relate to the profession, job responsibilities, and work environment (Lieberman & Mace, 2008).

Community of Learners - A community of learners is a group of people who work together cooperatively and productively to support each other in their collective and individual learning. They encourage each other and are motivated to be risk-takers. A community of learners can include all levels of learners because everyone is learning, not competing (Burroughs, Schwartz, & Hendricks-Lee, 2000).

Professional Learning Community - A professional learning community consists of a group of professionals working collaboratively toward shared goals and purposes, consistently acquiring new knowledge through collegial interaction with the intent to improve professional practices (Bullough, 2007; DuFour, 2004).

Climate - Climate is defined as a shared perception of the work environment that influences performance. It is the collective mood or morale of a group of people (Deal & Peterson, 1999).

School climate - School climate refers to the norms, values, relationships, and teaching and learning practices that are reflected in the school organization (Cohen, 2009).

Organizational Health - Organizational health is defined as the ability of schools to function in such a way that there is cohesion between the work of teachers and administrators resulting in student success despite averse influences (Hoy, 1990). It is defined by five factors: 1) institutional integrity; 2) resource support; 3) collegial leadership, 4) academic emphasis, and 5) teacher affiliation.

Table 1
Levels of School Climate/Health

Level	Descriptor
Technical	Academic Emphasis Teacher Affiliation
Managerial	Collegial Leadership Resource influence
Institutional	Institutional Integrity

National Board Certification

Effect of National Board Certification on Student Achievement

Harris and Sass (2007) reported that board-certified teachers effect large gains on students' achievement scores. There is some inconsistency, however, as these results are examined across status of certification. Bearing in mind leadership style, students' social issues, and parent involvement, teachers who attempted certification and failed had less impact on student achievement than teachers who became board-certified or others who had not attempted to achieve certification.

One NBPTS goal in the call for highly-qualified educators is to attract and retain highly effective teachers. Goldhaber and Anthony (2007) argue that NBCTs were less likely to move between schools and districts, or to leave the public school system than non-NBCTs. However, the Harris & Sass (2007) report indicated that these teachers are more likely to seek teaching jobs in more successful districts and to more readily change jobs than teachers who are not certified. Despite the differing reports, the conclusion that NBCTs have a positive impact on schools is consistent.

From Training to Professional Learning

Public schools have traditionally mirrored the structure and lifestyle of their society. Before the Civil War, the model of public education reflected and adequately met the needs of the agrarian lifestyle of the time. With the industrial revolution came the change in lifestyle, with much of the population working in factories. A new set of skills was needed, and a factory model of education emerged. Large buildings were built in which students sat in rows, reflective of the factory setting. The goal was for schools to educate students to function in this new industrial age by learning just enough to obtain the factory jobs that they would keep for much of their lives. The *training* that educators received during this time also resembled the factory model, as was fitting for the era.

Eventually, educators began using the term *professional development* rather than *training*. The phrase was intended to help shift the image of teachers in the public's eye from ordinary workers to professionals (Cantrell & Hughes, 2008). The change brought with it a shift in focus. Professional development (PD) became geared to small groups' needs rather than a generic training for the entire faculty body. However, the development of contemporary educators must change again as the nation shifts from an industrial to a service and information society. At the heart of current school reform efforts are parents, teachers, administrators, and policy makers who have begun to realize that a new model of education is needed (Cantrell & Hughes, 2008).

Contemporary life requires that people be prepared to think for a living and learn many new skills over the course of their lifetimes. Teachers are, therefore, increasingly being included in the conversation as co-designers of pedagogical practices and curricula to help bridge the link between students, resources, and social and workforce needs. They are obliged to design

differentiated, individualized instruction for students and to consider and follow the needs and interests of the learners to ensure that they acquire the skills they need to enter the present-day workforce. This type of instruction requires teachers to teach in new ways. In order to transform old methods into contemporary techniques, teachers need appropriate PD (Darling-Hammond & Bransford, 2005).

National Board Certification Emerges

The need for effective PD has led educators to the conclusion that workshops, conferences, and chalk-and-talk formats are ineffective means of professional learning. The problem with these traditional forms is that teachers may not have the content knowledge, context, or expertise to incorporate what they have learned in their teaching practices (Darling-Hammond & Bransford, 2005). The researchers say that cogent professional learning is needed more than ever because of the greater challenges now faced by educators. Although for decades schools have made changes, they never seemed to make a drastic difference on a consistent basis in teachers' practices and student achievement. This is due in part to the fact that professional development practices have not been strategically geared to teachers' individual needs. Opportunities for collaboration and reflection before, during, and after the practical application of new techniques are lacking, resulting in limited teacher buy-in and short-lived, unsustainable efforts.

National Board certification, a different approach to PD, has thus emerged. The certification process was conceived as a result of the publication of *A Nation Prepared: Teachers for the 21st Century* which was released on May 15, 1986. The report suggested creating a standard for exactly what effective teaching should look like, along with a standardized method of assessing teachers' ability to meet those standards (NBPTS, 2007). Unlike other forms of PD,

the National Board certification process offers the opportunity for teachers to practice research-based strategies in their own classrooms, with their own students, and to get feedback from peers, as well as to reflect on their own practice. While other forms of professional development might offer opportunity for these practices individually, National Board certification allows opportunities for a combination of all.

From Professional Learning Comes a Community of Practice

Bennett (2010) contends that learning in a community of practice is a result of shared interactions and relationships. Common interests in these societies are structured around a specific area of knowledge and activities, giving members a sense of common ownership. The teachers involved in the National Board certification process represent a community of practice. Although consisting of diverse certificate areas, the beliefs and expectations of the NBPTS standards and portfolio directions are meant to provide a common link. "NBCTs, as a community of practice, form a group of individuals bound together by a shared expertise and passion of a joint activity or common interest" (Lave & Wenger, 1991). Learning in a community of practice involves shared interactions, relationships, and common interests. The product is the integration of beliefs, values, and practices resulting in new knowledge. Burroughs et al. (2000) explains that conversion of insights into knowledge is able to happen more successfully when opportunities for participation within communities of practice are created.

Communities of Practice Lead to Professional Learning Communities

Bullough (2007) developed a model of components that are critical in school reform and improved student learning. One of the major frameworks in this model is professional capacity, which highlights the importance of the professional community, collegial trust, and collaborative work. According to the model, a climate for effective instruction is achieved through

collaboration and sharing of responsibility by teachers. Practitioners who pool their resources to create a tangible vision for the school, using collaborative methods to increase student learning, often think of their schools as learning communities. Hipp and Huffman (2010) suggest that the development of collegial professional relationships among practitioners is an important goal when schools are thought of as communities. While improving professional communities is an important goal, equally important is the positive effect that strong professional communities have on school climate and subsequently on student achievement (Bennett, 2010).

Research endorses improved teacher pedagogy as a significant factor in raising student achievement. Vanderburg and Stephens (2010) state that for this kind of change to occur professional development should concentrate on four critical characteristics. They argue that effective professional development is continuous, job-embedded, allied with improvement ideals, and structured in a cooperative, discovery-based way.

Statement of the Problem

Currently, states, districts, and/or schools are investing in teachers becoming National Board-certified and although studies identify some improvement in students' achievement (Calavuzzo, 2004; Goldhaber & Anthony, 2007; NBPTS, 2012), it is unclear the effect National Board certification has had on other aspects of teaching. We know little of whether the quest for student achievement through National Board certification is stimulating changes in other areas of teaching such as atmosphere, specifically school climate. The climate of a school plays a critical role in effecting student achievement (Fisher & Fraser, 2009). The purpose of this qualitative study is to focus on an analysis of the effects of National Board certification on the climate of one elementary school in one rural school district in Pennsylvania, where there is a substantial number of Board-certified teachers.

This study was based on surveys, in-depth interviews with teachers, administrators, and staff, as well as field observations and focus group discussions. Specifically, this investigation explores the experiences teachers report having with NBCTs. An understanding of how they believe this certification and/or its process is changing their environment was sought. Through this study, the researcher endeavored to understand the perceptions that are associated with National Board certification and, in the course of this understanding, discover the ways in which working with a large number of board-certified teachers has affected the professional climate/organizational health of the school. By means of an in-depth description and analysis of the work among teachers, administration, and staff, this study seeks to discover the aspects of National Board certification that result in changes in behavior as well as the types of experiences teachers have with National Board-certified teachers that result in changes in school climate.

Design of Study

Methodology

In this case study, the researcher used observations, participant surveys, semi-structured interviews, and focus-group discussions with participants. The researcher incorporated the case study method of analysis which Preissle and Grant (2004) posit as uncovering implications and insights of the participants in the research, attempting to see things from the participants' perspectives. The Organizational Health Inventory (OHI-E) survey was administered to participants, interviews were conducted, and the school atmosphere (or climate) was observed simultaneously. Of great interest were the relationships between and among the teachers and administration. Documents pertaining to National Board certification were also analyzed in order to get a complete understanding of the participants.

Purpose of Study and Research Questions

Purpose

The purpose of the study was to examine how a large population of National Board- certified teachers impacts a school's climate/organizational health. The following questions guided the study:

Research Questions

1. How do teachers perceive the effects of National Board certification on school climate/organizational health?
2. How does staff perceive the effects of National Board certification on school climate/organizational health?
3. How do administrators perceive the effects of National Board certification on school climate/organizational health?

The research reported in this study focuses on the impact of professional learning, through National Board certification, on school climate. Using a purposefully selected sample of teachers in a school in one rural district rich with NBCTs, the researcher examined the specific interactions between National Board-certified teachers, non-Board-certified teachers, other staff, and administrators, m to develop an understanding of the impact of NBCTs on the organization's climate/health.

Significance of the Study

Investigating a school climate, through the intersection of a critical mass of National Board certified teachers as a community of practice, will expand the understanding of the influence of National Board certification and enhance the body of NBPTS scholarship. Gaining a deeper understanding of National Board certification's influences on school climate will

contribute to transformational learning and communities of practice literature pertaining to adult learning theory. Findings gathered from this study will enrich our comprehension of National Board certification and its effects on a school's health/climate.

This study is important because most school climate and organizational health research to date has not examined the influence of National Board certification (Goldhaber & Anthony, 2007). This void is of concern, as the extensive literature in academic achievement indicates that a school with a positive or healthy school climate fosters the elements necessary for school improvement (Brookover, Schweitzer, Schneider, Beady, Flood, & Wisenbaker, 1978). In addition, given the resources being expended on National Board certification, this study will add to the literature on its value.

Educational leaders can profit from the data contained in this study. Because the effects of NBC on school climate/health have not been measured, it then becomes important for those who are responsible for helping to improve school climate to investigate more closely factors of school climate, including National Board certification, which have been overlooked in the past. The oversight may be due in part to the perception that the majority of educational leadership research on school climate tends to explore administrative relationships and leadership styles. Cohen (2009) for example, posits that the majority of research on school climate is collected by "administrators, administrators in training, and professors who teach administrators" (p. 4). The research by Cohen, McCabe, Mitchelli, and Pikeral (2009) suggests, however, that when administrators begin to view National Board certification as critical in all facets of the achievement process, some of the positive effects of National Board certification on school climate can be realized.

Theoretical Framework

The conceptual framework that guided this study was Hoy and Tarter's (1997) work on organizational health in elementary schools. This framework employed the use of the OHI-E survey and guided the development of the interview and focus group protocols and observation framework. Data gathered in the study were also analyzed through the lens of Hoy's work on organizational health.

The organizational health of a school has been suggested as a concept that can be considered a symbol for the climate of the school (Hoy & Hannum, 1997). Studies have found a positive relationship between elements of organizational health and student achievement (Sherblom, Marshall, & Sherblom, 2006; Spence, 2003). When strongly influential factors such as socioeconomic status were controlled, organizational health was shown to correlate with the achievement of students. The positive association of organizational health and student achievement provides a direction for school reform.

Through their research, Hoy and his colleagues (Goddard et al., 2000; Hoy & Feldman, 1987; Hoy & Hannum, 1997; Hoy et al., 1990) found five components of organizational health in elementary schools that fit into three categories. They label these categories methods of control: Technical, Managerial, and Institutional. The technical area deals with the practices of teaching and learning. The first organizational health characteristic in this area is academic emphasis (AE), which refers to the school's expectations of high academic standards for students of all abilities and respect for academic success. The second characteristic is teacher affiliation (TA). This refers to a sense of connection to the institution. Optimally, teachers relate in a friendly, enthusiastic way. The managerial area deals with the function of the principal. Its first characteristic is resource influence (RI). This is the principal's ability to influence his or her

superiors for the benefit of the teachers and ensure that teachers have the materials necessary to perform their jobs. The next is collegial leadership (CL). Collegial leaders are friendly, open, approachable, and fair while setting high performance standards. The final area is institutional, characterized by institutional integrity (II). This is the school's ability to withstand unreasonable external demands, such as those of parents or community organizations. Chapter II has a more detailed description of the concept of organizational health.

Limitations of the Study

There were a few limitations to this study. First, the small sample of participants in one school in one rural school district impedes generalizability. Second, as is often the situation with case studies, and in this instance owing to distance and scheduling conflicts, it was difficult to completely capture the feel of the research environment. The reliance of perception-based responses to survey and interview questions presented the issue of self-reporting, in which individuals may not be open about potential issues in the interest of self-preservation. It is also challenging to select the most appropriate time to administer a climate survey so that it produces the best results (Cohen, 2009). However, every attempt was made to provide rich and meaningful analysis.

Finally, the researcher's presence may have affected the data-gathering process and, perhaps, the outcomes of the study. Protocol required a brief explanation of the presence of the researcher to every participant and to obtain approval before observing. While no teacher expressed opposition, and the researcher followed protocol and remained as inconspicuous as possible during observations, knowing the reason for the observation may have influenced the behaviors of the participants.

Chapter Summary

Increasing mandates requiring improved student achievement for individuals and disaggregated groups produce an environment that requires highly skilled teachers. Schools are expected to respond to these challenges by developing plans for continuous improvement. The mission of the National Board for Professional Teaching Standards states that National Board certification will promote education improvements and use the know-how of National Board-certified teachers to improve schools (NBPTS, 2012). A specific school with a large number of NBCTs is examined in this study to see in what ways they have affected its health/climate.

Organization of the Study

Chapter II includes a review of the research literature on the topics National Board certification and school climate/organizational health. This research forms the theoretical framework for this study. Chapter III outlines the research design and methodology, theoretical framework, and limitations of the study. Chapter IV opens with the school's demographic information, achievement data, results of surveys, and analysis of interviews and focus group discussions conducted with school leaders, other teachers, and staff, and National Board-certified teachers. Chapter IV concludes by discussing overarching themes from the survey data, interviews, and observations. Chapter V discusses the findings in relation to the literature. It also addresses the implications of the findings to policy and practice and explores avenues for future research.

CHAPTER II

REVIEW OF RELATED LITERATURE

Introduction

The purpose of this study is to examine the perceptions of teachers, staff, and administrators regarding the impact of National Board certification on a school's climate. This chapter includes a review of literature linked to the topics of school climate and National Board certification. The study first presents an historical perspective of National Board for Professional Teaching Standards and the evolution of National Board certification. The phenomenon of school climate is then discussed, followed by an exploration of organizational health. Finally, the connection between National Board certification and school climate/organizational health is examined.

Criteria for Selecting the Literature

Organizational health or climate involves a comprehensive and informative model of a school's well-being. Several types of literature were chosen for inclusion in this chapter including journal articles, books, unpublished dissertations, research studies, reports, and online sources.

Background

The identification and development of highly-effective teachers has become one of the focal points of standards-based educational reform (Elmore, 2002). National Board for Professional Teaching Standards (NBPTS, 2012) contend that No Child Left Behind (NCLB) and more recent legislative mandates offer a paltry definition of highly qualified teachers that ignores many of the other aspects, supported by research, that comprise effective teaching and learning. Studies present a wide variety of understanding of what constitutes a highly-qualified

teacher. Of the many definitions offered, none goes further than listing the basic qualifications for educators. Individual states use selective criteria to support claims of having workforces of highly qualified teachers, thus slowing the mandate to raise teaching standards (NBPTS, 2007).

Disparities between the legislative and educational communities are evident, with the focus of the latter resting on the practical aspects of teaching and learning, while policy-makers are focused on subject-matter knowledge and certification (Stedman, 2004). Despite this contrast in philosophies relative to teachers' abilities, there is consensus and distinct emphasis on the quantifiable component, standardized test scores. This leaves the less conspicuous measures, such as climate and culture, relationships, capacity, student motivation, and leadership, untapped, or at the very least, underestimated. NBPTS (2007), therefore, seeks to offer a more comprehensive view of quality teaching in its work. NCLB defines highly qualified teachers as those who have studied the subjects they teach and are licensed by the state to teach those subjects (NCLB, 2001). NBPTS (2012), on the other hand, takes the more practical approach and defines an effective teacher as one who is able to demonstrate quality instruction as it occurs, in a classroom with children.

History of National Board for Professional Teaching Standards

The economic downturn of the 1980's was one of the worst in the United States since the era of the Great Depression. Inflation, interest rates, and unemployment were exceedingly high. In the early part of the decade almost one-third of America's industry had come to a standstill, while technology saw its initial boom. The total number of computers in the United States increased exponentially, resulting in the ability to communicate and transmit information on a large-scale and world-wide basis. For the U.S. to continue to successfully navigate international commerce, the revelation was that the American workforce of the twenty-first century would

need to work collaboratively to solve new and existing problems. To create this new generation of thinkers, education as it existed would have to undergo a metamorphosis.

In 1986, the Carnegie Forum on Education and the Economy established the Task Force on Teaching as a Profession, with the ultimate goal of creating a system that would supply adequately prepared teachers, reduce the lack of minority teachers, give teachers the freedom to make educational decisions in the best interests of their students, and hold teachers accountable for student outcomes (Darling-Hammond, 1997).

The task force report, entitled *A Nation Prepared: Teachers for the 21st Century*, was a massive strategy for the reorganization of schools and redefining teaching as a profession. Based on the need for problem-solvers, thinkers, and collaborators, public school would become the venue of preparation. Teachers would be expected to create learners who made learning applicable to other situations. Teachers would become facilitators rather than transmitters of knowledge, and students would be active rather than passive thinkers (Carnegie Task Force on Teaching as a Profession, 1986). *A Nation Prepared* subsequently gave birth to the National Board for Professional Teaching Standards.

Towards High and Rigorous Standards for the Teaching Profession (NBPTS, 1989) noted that, despite numerous efforts to improve schools, none reflected the promising, enduring and universal change in teaching that was called for by the National Board. Over the course of six years, the Board, with the assistance of school personnel, came to a consensus about what constituted effective teaching and created a list of standards and assessments in eighteen certification areas. This number has expanded over time to twenty- seven certification areas (NBPTS, 2014).

The NBPTS is a self-governing, charitable organization, overseen by a board of directors, comprised primarily of classroom teachers. Its mission is to create advanced criteria for what proficient teachers should know and be able to do to effect student achievement. National Board certification, as a part of educational reform, was established to be a process for interested educators to engage in voluntarily. Certification is attained through arduous performance-based assessments that can take as few as one and as many as three years to complete. As of December 2014, NBPTS reported that more than 110,000 teachers had earned National Board certification (NBPTS 2014).

In contrast to traditional assessment methods, the new generation of standards-based teacher assessments like NBPTS differ in that they do not primarily depend on multiple-choice tests of subject matter knowledge (Cantrell, Fullerton, Kane, & Staiger, 2008; NBPTS, 2012). The newer methods highlight educators' abilities to think deeply, make complex decisions, and teach in a way that adds depth and breadth to students' knowledge.

New Professional Development Evolves

The new standards movement coupled with federal initiatives such as Race to the Top and Common Core standards have created the need for drastic changes to outdated approaches to PD (Bullough, 2007; United States Department of Education, 2010). This belief has resulted in the growing popularity of a number of innovative approaches including teacher collaboration and self-reflection and connecting PD goals with classroom instruction (Boyd & Reese, 2006).

Typically, teachers attend workshops or graduate classes to learn new approaches and teaching strategies. Often, teachers have found it difficult to implement these new strategies and so revert to familiar instructional practices (Wood & Bennett, 2000). Professional development that is embedded in the daily practice of teachers, such as the process involved in National Board

certification, potentially offers more support to teachers as they refine, reflect upon, and improve their teaching practice in real time (Bond, Smith, Baker, & Hattie, 2000; NBPTS, 2007).

All too often, teachers work in isolation with little opportunity to collaboratively solve the problems they encounter in their instructional practices, to create change and improvement in instruction (Bullough, 2007). Research indicates that if an environment was created where teachers could collaborate and be assisted in their teaching performances, then their growth and change would be much more likely. When teachers understand their own need for support, they are more willing to participate in collaborative professional development experiences (Burroughs, Schwartz, & Hendricks-Lee, 2000). With the ultimate goal of education being to maximize student learning, one step toward this goal is having teachers fine-tuning their pedagogy. Educational leaders need to facilitate this by implementing staff development initiatives that focus on authentic practices.

The process of National Board certification endeavors to develop genuine PD methods that meet the authentic needs of teachers. Every year, the 11,000 plus candidates who apply to NBPTS assemble portfolios and take an electronic assessment illustrating their teaching compatibility with NBPTS standards (NBPTS, 2014). The results of achieving certification are financial gain in some states and/or school districts and the realization that they have become members of a very exclusive group of teachers.

Policy makers and educational leaders realize the need for teacher preparation that is focused on improved instructional practices. This has resulted in increases in research that attempt to identify effective PD initiatives and find a set of features that are common to these successful programs (Cantrell et al.). Contemporary research has found that PD needs to be sustainable, practical, and context-embedded. Furthermore, research by Elmore (2002) has

shown that PD offering the opportunity for collaboration is valued by teachers and plays a role in supporting inquiry and problem solving.

Professional Learning Communities

Professional learning communities (PLC) provide both an organizational framework and mandate collaboration between their members. They are defined as opportunities where teachers work together to focus on student learning and critically reflect on their work (Maynor, 2010). Professional learning communities sanction teachers to make changes to their practice by analyzing best instructional practices, developing and testing new hypotheses, and using data to decide on appropriate instructional strategies (Hord, 2004). Studies have shown that PLCs are effective in producing the positive outcomes of student-centered instruction and high student expectations (Bennett, 2010).

Despite the preponderance of ongoing research supporting PLCs as an effective reform tool, many researchers report that in actuality there is a huge lack of practical application in schools (Bennett, 2010; Hord, 2004; Reynolds & Teddie, 2002). Tarnoczi (2006) adds that in many cases rather than inquiry-based collaborative processes to enhance educational decisions, collaboration is often focused on organizational issues and decisions such as discipline and curriculum. While significant in the daily operations of school, concentrating primarily on these issues is contrary to the focus fundamental to PLCs.

Professional communities draw on the intellectual capital of the individual members to promote collaboration through which professional knowledge is harvested. Hord (2004) presented the idea that in order for PLCs to be successful, members need to have a deep level of investment, knowledge of the purpose for the PLC, and openness to each other's perceptions, ideas, and experiences.

Professional Learning Communities and Staff and Student Achievement

Darling-Hammond and Bransford (2005) observe that similar schools characterized as PLCs report quicker evidence of school improvement. This evidence supports the theory that educators need chances for sharing knowledge, problems of teaching and learning, and to witness each other as they teach in cultures such as are created by PLCs. The researchers further note these interactions expand teachers' pedagogical knowledge.

Lee, Smith, and Croninger (1995) conducted a study of 11,000 students in 820 schools in the United States. They found that in schools identified as PLCs the teachers commonly collaborated to bring about changes in instructional techniques. Consequently, their students' activities were at a higher level and the achievements in math, science, history, and reading outscored those of their colleagues in schools that were not characterized as PLCs. In the schools studied, faculty and staff reported experiencing a greater sense of efficacy and higher morale, while both faculty and students had lower dropout rates.

Bullough (2007) agrees that PLCs are instrumental in providing knowledge about concepts and issues related to instruction. These opportunities allow for reflection, self-evaluation, peer-evaluation, and non-supervisory evaluation and feedback. A longitudinal study conducted by Maynor (2010) found that in achieving school reform, PLCs offered the most effective means, while encouraging risk-taking teaching behaviors absent in non-PLC environments.

Moore (2010) agrees that PLCs present the greatest means to successful reform because they offer environments of shared visions and goals and occasions for teachers not only to examine their own classroom practice but that of their colleagues in a non-evaluative manner as they seek solutions collaboratively. In experiences which create school climates that nurture

collaboration, decision making, and significant opportunities for pedagogical enhancements, teachers transform curricula and high standards into effective teaching and learning for students (Moore, 2010).

Professional Learning Communities and NBC

When established in 1989, the NBPTS had in mind, among other things, the amelioration of the professional relationships between educators (NBPTS, 1989). These relationships help to define the climate of the school environment. At the heart of National Board standards is the collaborative effort of teacher leadership and PLCs. Morrow (2010) states that building PLCs is key to improving education, since effective teachers make instructional decisions embedded in the circumstance of teaching and learning supported by ongoing data collection and analysis. In these settings, teachers surrender autonomy, form collaborative teams, analyze student data, co-plan and teach engaging and efficient lessons, observe each other, and reflect on the process and its outcomes as a team. These strategies, researchers argue, in turn lead to greater student engagement, motivation, and achievement (Moore & Morrow, 2010).

National Board standards place a premium on PLCs, which are valuable in restructuring schools as high-achieving learning environments. Through the collaborative processes described above, teachers resolve to heighten their level of pedagogy and engage in best practices to instruct students and produce positive outcomes for their students, their colleagues, and themselves.

National Board Certification

National Board certification is valid for ten years. Applicants to the assessment process become familiar with the standards related to the area of teaching in which they are seeking certification, engage in instruction based on those standards, and provide various submissions

towards certification. Unlike a master's degree, no state, district, or school on record mandates National Board certification. The certification process was initiated as a voluntary engagement, during which teachers self-reflect and analyze their instructional methods. Another requirement is that they demonstrate the ability to align the Board's five core propositions to positively affect student learning (NBPTS, 2014).

Core proposition one mandates that effective teachers are committed to students and their learning. This proposition is based on the premise that new knowledge is accessible by all students. These teachers treat students fairly, acknowledge their individualities, and tailor their instruction to suit the interests, talents, abilities, understanding, and peer and family relationships and conditions presented (NBPTS, 2007).

Core proposition two emphasizes that teachers are experts in the subjects they teach and how to teach those subjects to students. These teachers possess deep knowledge of the content they teach and are able to make connections across disciplines. They are able to develop students as critical and analytical thinkers. They also have a unique capability to help students acquire deep knowledge of subject matter by accessing the background knowledge that students present. Additionally, the teachers understand where students' difficulties lie and are able to employ multiple techniques to help them overcome these obstacles, acquire subject knowledge, and become problem solvers (NBPTS, 2007).

Highlighted in proposition three is the notion that teachers are responsible for supervising and monitoring student learning. This proposition states that teachers are able to create and maintain structured, engaging environments in which students' attention and interests are captured. They are keenly aware when techniques are ineffectual and are able to modify instructional practices to make them effective (NBPTS, 2007).

Core proposition four dictates that teachers are reflective, creative practitioners who draw upon their knowledge, experiences, and what they know about their students to make decisions about effective instruction. They are also able to share and acquire knowledge from fellow teachers. They are lifelong learners seeking innovative ways to improve their instructional techniques. Students of accomplished teachers mirror virtues such as the curiosity possessed and demonstrated by the teacher (NBPTS, 2007).

The fifth core proposition indicates that teachers are members of PLCs who contribute to the success of the school through collaboration with colleagues. They are familiar with, and effectively use, school and community resources to help students and work with parents to ensure the productivity of the school. The Board used these five ideologies to direct the expansion of the standards and assessments in each certification area (NBPTS, 2007).

The Assessment Process

National Board certification was initially obtainable in 1993 in Middle Childhood Generalist and Early Adolescence English/Language Arts certifications. Ten years later, in 2003, 24 certificate areas were available. At that time three additional certificates were under development and two were in the preparation phase (NBPTS, 2007).

A teacher applying for National Board certification must be a currently certified classroom teacher with a minimum of three years' experience. NBC is performance-based and was intended to be accomplished in one year, with leeway maximum of three. During that year, assessment candidates must complete portfolios of their work, submit videotapes of their instruction, and take a one-day computer-based exam on subject matter knowledge and teaching methods related to daily instruction and their area of certification. Portfolio requirements include written description, analysis, and reflection of instruction, examples of student products, and film

of the students and teacher engaging in high-level instructional activities. This process is estimated to take 200 to 400 hours (NBPTS, 2014).

The certification requires that teachers demonstrate their observance of the five core propositions. Evaluators use rubrics to score portfolio submissions and assessments. A combination of success on both the portfolio entries and the assessment results in National Board certification. Teachers who are not successful on the first try have the opportunity for a re-take. The resubmission must be completed within two years and include targeted portfolio entries or re-takes of the assessment center exercises (NBPTS, 2014). Once entries are scored, each is weighted to compute a total score. If the score is 275 or higher, the candidate is certified. If the score is lower than 275, candidates may bank their score and resubmit any entry within two years. These candidates, known as "advanced candidates," must pay $300 per retake. Historically, roughly forty percent of candidates achieve certification on the first try.

Positive Impact of National Board Certification on Student Achievement

Research indicates that the capabilities of a teacher make a difference in students' academic achievement. Ultimately, National Board certification is supposed to recognize quality educators, and such quality should be evident through the academic achievement of their students (NBPTS, 2012). Several large-scale studies have tested this hypothesis by comparing student scores on state standardized tests for students of NBCTs and non-NBCTs. Studies conducted by various researchers compared student achievement for NBCTs, future NBCTs, teachers who were never certified, and teachers who attempted to get certification but did not achieve it. A number of interesting findings came from these studies.

In 2002, the Chattanooga school district of Tennessee proposed bonus pay for teachers as a reward for an overall district increase in student achievement of 15% or greater. Bond et al.

(2000) studied the performance of 16 NBCTs and determined that the two percent increase in test scores by students of the NBCTs was not enough to qualify. An examination of ninth and tenth grade students by Cavalluzzo (2004) showed that students taught by teachers who were not certified attained 65.45 points per year while the students of 61 NBCTs scored 66.7 over the same time-frame. This is a significant difference in quantitative analysis; however, the actual increase of one and a quarter points is relatively small.

In a similar study, Stone (2002) examined the test results of students in third, fourth, fifth, and sixth grades. The students of 35 NBCTs produced higher results than students of their non-certified peers. The researchers argue that although the difference in the results were small, it equates to the students of the NBCTs extending their school year by one month.

Three North Carolina school districts were explored for the differences in achievement of NBCTs students to those of non-NBCTs. The study looked at a sample of the classrooms of 300 junior-high school teachers and found that students of NBCTs had marginally better results than those of non-NBCTs (Smith, 2002). A comparative study examined the impact of NBCTs on student achievement versus teachers who failed to attain certification. The sample group of 64 teachers was comprised of 35 NBCTs and 29 teachers who tried but did not achieve certification. The findings suggest that regardless of certification status, the differences in the majority of student outcomes were minimal. However, classroom assignments and instructional designs reflected a deeper understanding of student needs in the classrooms of NBCTs and therefore those students acquired deeper understanding (Smith et al., 2005).

A study of the influence of the NBC process on adolescent learning in science performed by Lustick and Sykes (2006) showed a positive effect. The study looked at the learning of NBC teachers going through certification and found that these educators learned new information

about their teaching and were able to use that information to better instruct their students. Another study by Salvador and Baxter (2010) addressed the question of whether NBPT certification boosted student test scores. The study looked at 10 years of data in North Carolina which showed that students taught by NBCTs learned significantly more over the course of a school year. Yet another study conducted in a Los Angeles school district analyzed data from 3,800 students in second through fifth grades. The study analyzed math and language arts test scores for students of NBCTs and non-NBCTs and found that the scores of students of the NBCTs changed the equivalent of moving seven percentiles in math and five in language arts (Cantrell et al., 2008).

Data such as those reported above support National Board certification as a tool for educational reform in schools in many states, districts, and schools across the nation. Not all studies, however, support the premise that NBC has a positive impact on student outcomes.

Studies Showing Little/No Impact of National Board Certification on Student Achievement

Some studies suggest that NBCTs have little to no impact on student achievement beyond that of non-NBCTs. Themes emerging from studies done by Harris and Sass (2007) and Sanders, Ashton, and Wright (2005) show extremely small effect sizes of differences in achievement. When analysis was performed based on certification standing, several remarkable findings surfaced. The students of teachers who attempted to get certification but did not achieve it generally performed at a lower level than the students of non-NBCTs (Cantrell et al., 2008; Cavalluzzo, 2004; Goldhaber & Anthony, 2007). Similarly, Goldhaber and Anthony (2007) found that students of teachers going through the certification process actually make lower gains than non-NBCTs and NBCTs who have successfully completed the process. The researchers

conclude that the time it takes to complete the assessment process may actually be detrimental to those teachers' students.

School Climate

Climate or *ethos* is generally referred to as the spirit of an organization. Early researchers of organizational climate (Halpin & Croft, 1963) describe climate in terms of its characteristics, values, and patterns. These researchers are touted as the pioneers of the school climate study movement who used the metaphor *personality* to give a human quality to the often sterile perception of schools. They describe climate as the organizational persona of the institution, concentrating on the social interactions of the faculty and administrators. Halpin and Croft (1963) define organizational climate as the measure of each individual's relationship with other employees in the work environment. Hoy and Hannum (1997) agree and add that climate describes the entire organization and is appraised mainly by its key members. The researchers say that key members of the school climate are teachers, with their perceptions of relationships, personalities, and leadership.

As pioneers of the concept of organizational climate in schools, Halpin and Croft (1963) constructed the Organizational Health Inventory (OHI-E) to measure school climate. Their approach identified the precarious nature of teacher to teacher and teacher to principal relations (Hoy, Tarter, & Kottlamp, 1991). Halpin and Croft (1963) take the position that since perception motivates action, how a group behaves is less important than how its members perceive it. Other researchers describe school climate as the teachers' perceptions of their working environments (Hoy et al. 1991), an indication of an organization's systemic health (Hoy et al.1991), and an effect of school culture (Peterson & Deal, 2010). Rafferty (2003) extended Halpin and Croft's

(1963) theory by describing school climate as encompassing the personal and intangible structure of the school.

There is a plethora of research that defines school climate, provides means of assessing it, and describes its effect on student outcomes and overall school morale. However, based on premises supported by research summarized above, there is a definite void in literature from the perspectives of teachers giving voice to their perception of climate within schools. Therefore, it is crucial that the awareness and insights of these educators be acknowledged and evaluated with the objective of discovering approaches to improving the organizational climate and student achievement.

As stated, school climate continues to be an important factor impacting the social, emotional, and academic achievement of students. With increased attention to high-stakes testing and standards, climate gains renewed importance as stakeholders attempt to remedy the weaknesses of current educational practices. Research has shown that positive school climate has been documented as the base upon which effective schools are built and serves as a valid indicator of student success (Van Horn, 2003). Officials who disregard the necessity to promote school climate are overlooking its recognized effect on school success. Schools with positive climate have lower attrition rates and reduced occupational tension and exhaustion in teachers (Pepper & Thomas, 2002).

Positive School Climate

Improvement cannot happen unless there are shared values, goals, and a widespread belief in sustaining the personality, atmosphere, and characteristics of the system (Fox et al., 1974). It is important then to have shared goals produced from, among other things, the synergy of open communication between teachers and administrators and among teachers (Van Horn,

2003). This in turn will nurture more productive teachers and help elevate the school climate (Hoy et al., 1991).

An improved school climate has various benefits for schools such as decreasing feelings of stress, increasing shared goals, setting benchmarks for professional growth, and empowering teachers with the ability to attain higher academic success (Fox, Boies, Brainard, Fletcher, Huge, Martin, et al., 1974). Academic success, and the climate that creates it, will help to promote a positive image of the school, develop collaboration, improve communication, and establish a sense of ownership of the school (Fox et al., 1974; Van Horn, 2003).

The perception of a positive school climate can be defined as an agreeable bond among everyone in the school (Van Horn, 2003). Schools with positive school climates have shared values, trust, job satisfaction and commitment, strive for continued academic excellence, and work toward fulfilling the needs of teachers such as sense of efficacy, support, appreciation, and open communication (Fox et al., 1974; Hoy 19910. A school with a positive climate fosters a positive morale (Pepper & Thomas, 2002), a shared sense of pleasure, eagerness, and pride that educators feel about their profession and school (Hoy et al. 1991). Morale influences the perception of school climate, and a school with a positive climate produces a more positive morale. The improved climate and morale in turn help enhance academic achievement (Pepper & Thomas, 2002). It is also suggested that efficacy can be improved when teachers work within a positive, healthy school climate (Moore & Esselman, 1994), when the school strongly emphasizes academic success (Hoy et. al., 1991), when teachers experience few teaching obstacles (Moore & Esselman, 1994), and when the school has leaders who work with teachers (Rafferty, 2003) to encourage shared decision making among the staff (Moore & Esselman, 1994).

Research has found that communication was a significant factor in improving teacher efficacy as measured by standardized test scores (Moore & Esselman, 1994; Taylor & Tashakkori, 1995). This is important, as improved teacher efficacy leads to positive perceptions and behaviors, which influence the development of the school and help teachers improve educational productivity (Moore & Esselman, 1994). The converse happens in schools which are not performing well. In those school there tends to be the perception that teachers have low self-efficacy (Moore & Esselman, 1994).

It is often misinterpreted that a school's ability to maintain a safe and orderly atmosphere produces efficiency. It is irrefutable that these qualities are important in providing safe learning environments for students while insulating instructional time from unnecessary disruptions. Nevertheless, if the dialogue on school climate focuses only on discipline and classroom control, an integral component of school climate is missed. The hallmark of a positive school climate is an atmosphere with minimal disruptions to student learning, coupled with faculty and staff who share a set of norms and values, a vision towards a common goal, and the willingness to work collaboratively to realize the goal.

Studies that Link School Climate to School Success

Traditionally, climate studies have primarily used survey instruments in order to quantify group values, explain attitudes and behaviors of those in the organization (Fraser, 2006; Fisher & Fraser, 1990; Hoy, 1990), measure teacher commitment, and indicate areas of improvement (Fox et al., 1974). As a result, climate studies have become a predictor of academic achievement (Brookover et al., 1978; Goldhaber & Anthony, 2007; Sherblom et al., 2006). School climate improvement initiatives can also positively affect teacher productivity when policies focus on common climate elements such as communication (Rafferty, 2003), ways to improve teacher

efficacy (Taylor & Tashakkori, 1995), and adequate resources and a concentration on academic success (Sherblom et al., 2006).

Fisher (2003) studied the connection between the climate in schools, leadership style of the principal, and student outcomes. He used the Organizational Climate Description Questionnaire – Revised for Elementary Schools (OCDQ-RE) to assess the perception teachers had of school climate. To measure student achievement, data from state tests were analyzed. The study showed a correlation between climate and leadership, climate and student outcomes, and student outcomes and leadership.

Spence (2003) conducted a study that examined elementary schools of low socio-economic status (SES) and the relationship between the climate in those schools and results on state tests. The Organizational Health Inventory for Elementary Schools (OHI-E) was utilized to assess overall climate as well as its five subtests: institutional integrity, resource influence, collegial leadership, teacher affiliation, and academic emphasis. Analysis affirmed a positive relationship between the school's climate and the achievement of its students.

Another study by Mac Neil, Prater, and Busch (2009) investigated the influence of school culture and climate on student outcomes. The researchers look at the difference in school climate in 29 schools as measured by the 10 dimensions of the OHI. The results indicate that students score higher on standardized tests when functioning in schools with healthier learning environments and that measures affecting the climate of schools can be specific to certain areas rather than holistic.

Studies that targeted teachers' opinions of school climate and its impact on student outcomes had several common trends. The survey instruments used a Likert-type scale. Although there was some variation in each study's focus each used data drawn from some form of state

test such as norm-referenced and standardized assessments. All found a strong relationship between school climate and student achievement.

School Organizational Health

In 1969 Miles coined the term "organizational health" in reference to the analysis of school climate, He identified ten properties of a healthy organization (Brown & Spangler, 2006). Originally used to explain the continuity of organizational life, the term organizational health was reconsidered by Hoy and Tarter (1991 as the organization's capability to adjust to its atmosphere, produce coherence among its faculty, and achieve common goals. Using this definition, organizational health in schools can be conceptualized by regarding the school as a social system where administrators, teachers, and students play a role. Therefore, a school's health should reflect the social interaction among these stakeholders.

In 1962, Halpin and Croft created a survey called the Organizational Climate Description Questionnaire (OCDQ) as the first method of quantifying organizational climate in educational institutions. It focused on the way teachers and administrators perceived school climate based on subscales of Collegial Behavior, Committed Behavior, and Disengaged Behavior for teachers and subscales of Supportive Behavior, Directive Behavior, and Restrictive Behavior for administrators. Subsequently, the OCDQ was revised to include students in middle and secondary schools.

Hoy and Clover (1986) later used Miles's framework to construct an Organizational Health Description Questionnaire to measure climate. Childers (1985) also used Miles's ideas to develop an Organizational Health Instrument. Unfortunately, both of these instruments had problems of low reliability coefficients and content validity (Hoy and Miskel, 1996). Hoy and Feldman (1987) used Parsons, Bales, and Sils' (1953) research as they developed consistent and

effective measurements of the organizational climate and health of a school. Parsons et. al's framework showed that organizations operate under three levels of control: technical, managerial, and institutional. Under the three broad categories are five subtests. Under managerial control are collegial leadership and resource influence, under institutional control is institutional integrity, and under technical control are academic emphasis and teacher affiliation.

Increasing teacher accountability for student outcomes is leading to greater emphasis on and scrutiny of the variables affecting those outcomes. Schools are implementing initiatives to augment their environment and overall functioning. Teachers who feel that they are working in a positive climate or healthy environment are more committed to their work, thus producing quality instruction to students. Student outcomes may also be enhanced when teachers enjoy positive self-efficacy.

The OHI-E measures the climate of the school on three levels using five subtests. The three levels of the OHI-E are the institutional, managerial, and technical. The answers to specific questions on the survey are designed to measure the school climate in the areas of institutional integrity, collegial leadership, resource influence, teacher affiliation, and academic emphasis. On the intuitional level, Hoy and fellow researchers present six questions designed to determine the level of institutional integrity, the first subtest of the school. According to Hoy and Tarter (1997), the level of institutional integrity in a school depends upon the autonomy of the educational program. A school with a high score on the institutional integrity subtest of the OHI-E will be one that is not vulnerable to community groups which have narrow, vested interests. The managerial level is represented in two subtests, collegial leadership and resource influence. Both measures are designed to describe the perception of the leadership of the school. Schools in which the principal is described as approachable, supportive, and fair have strong collegial

leadership. High levels of resource influence occur where principals have the ability to affect change outside of the school and within the educational environment in order to benefit teachers. They are also perceived as providing adequate materials, supplies, and resources as needed. The academic emphasis subtest focuses on the school's collective focus on achievement. Teacher affiliation is established through a strong sense of trust and friendliness among staff members. Teachers are committed to their colleagues, students, and the profession. According to Hoy and Tarter (1997), a healthy school climate is one where the integrity of the academic process is consistently maintained, teachers are sheltered from outside pressure, and principals earn the respect of their teachers, supervisors, and community.

Elementary School Studies

In 1990, Hoy and Podgurski developed the 37-item form of the Organizational Health Inventory for elementary schools (OHI-E). They relied on earlier research by Hoy and Feldman (1987), Halpin and Croft (1963), and Hoy and Clover (1986), as they designed the instrument. The instrument was subsequently used to define healthy elementary schools as schools with high institutional integrity, teacher affiliation, and academic emphasis and places where the principal maintains a high degree of resource influence and collegial leadership.

Consequently, many studies utilized the instrument to measure the climate of schools including one such study conducted with 179 teachers to examine the relationship between a healthy school climate and teacher efficacy. The findings illustrated that a healthy climate promoted the development of the teachers' self-efficacy as it relates to their belief in their ability to influence student achievement. Researchers Hoy and Clover, 1986; Hoy and Feldman, 1987; Hoy et al., 1990; Hoy et al., 1991; Hoy and Sabo, 1998; Hoy and Tarter, 1992; and Tarter, Hoy, & Kottkamp, 1991 all tested the reliability of the OHI-e to measure school climate with positive

results. This led to the revision of the instrument for use in middle and secondary schools. (Hoy and Tarter, 1992).

School Climate/Health and National Boa*r*d Certification

While there is some conflicting evidence linking individual National Board certification with increased student achievement, there is evidence that the mere presence of NBCTs in a school and district does have some positive impact on student achievement, some of which is attributed to the climate of individual school buildings (Frank, Gykes, et. al., 2008). The practices/propositions advocated by NBPTS such as collaboration are conducive to a positive climate.

The fifth core proposition of NBPTS is that teachers are members of learning communities. This tenet proposes that effective teachers work collaboratively to affect student outcomes (NBPTS, 2012). A requirement of candidacy is the submission of an entry revealing and analyzing how joint work with colleagues, parents, and school community enhanced student learning.

Terry (2002) posits that collaboration and expertise are interconnected and must co-exist to produce positive outcomes. Bullough (2007) argues that consistent partnership with colleagues is a practice of proficient educators. Collaboration allows teachers to reflect on their own practice, take a holistic look at the educational field, and examine and evaluate current and future needs (Cohen, 2009). Collaboration with colleagues is more likely for teachers when their expertise in working with students is acknowledged (Lieberman & Miller, 1999). Fisher (2003) studied the relationship between collaboration and leadership among three educators. He found that the types of PD opportunities that appealed most to teachers were those that allowed them to collaborate, mentor, co-teach, and share overall work experiences.

Gruenert (2008) explored the impact of teacher collaboration on climate and determined this phenomenon was so influential that rewarding the efforts to increase collaboration could result in improved school climate. Not only is collaboration important, mentoring provided by teachers also affects school climate and has a direct impact on student achievement (Gruenert, 2008). Frank et al. (2008) conducted a study which determined that NBCTs provide more help to colleagues in instructional matters than non-NBCTs. Specifically, they found that National Board certification affects the number of peers a teacher supports/mentors with instructional concerns. Cantrell et al. (2008) also found that NBCTs play a role in professional development. This research showed that NBCTs affected professional development by increasing reflection on teaching practices, establishing a school community that focuses on professional discourse, raising standards for teacher performances, and facilitating collaboration. In a qualitative case study of a rural Alabama school, the authors found that thirteen teachers in the school building had earned their National Board certification and as more teachers earned the certification, professional learning communities began to develop, and teacher leadership began to emerge. When teachers held themselves and their colleagues responsible for school achievement and growth, the overall student achievement in the school increased. The principal attributed the change in school climate to the leadership provided by the NBCTs in the building (Berry, Johnson, & Montgomery, 2005).

The ultimate goal in education is student achievement. Over the last two decades there has been a growing appreciation that school climate can hinder or foster student achievement. Perry (1908) was the original author to explore and present unambiguously the connection between school climate and student learning. Other researchers and authors focused on studying organizational climate and school effectiveness (Guenert, 2008; MacNeil et al., 2009; Mitchell et

al., 2010). There is no consensus on a definition of school climate. However, most researchers maintain that school climate is the fundamental expression of the personal experiences of teachers, staff, administrators, and students in a school (Cohen, 2009).

A National Academies (2008) report summary of a number of studies indicates that many educational organizations are not optimizing use of their NBCTs. The report further states that, with minor exceptions, there is minimal proof that districts and/or schools are encouraging NBCTs to mentor other teachers or assume other leadership roles. In the absence of an organizational structure that is conducive to the exploitation of NBCTs as a valuable resource, Koppich, Humphrey, and Hough (2007) report that "NBCTs find themselves teaching in situations in which their skills are greatly underutilized" (p. 16). The researchers state that while nearly three-fourths of NBCTs say their principals are excited about board certification, more than half say that principals do not say that they see value in using the skills and knowledge of NBCTs other than in their role as classroom teachers. This lack of administrative support is related in part, they argue, to administrators' general unfamiliarity with the true meaning of board certification, the rigorous process of candidacy, and the resulting general know-how of those who are certified. The report continues that even administrators who are equipped with this knowledge seem unable or unwilling to use this expertise productively. It seems that administrators fail to strategically utilize NBCTs to promote school improvement. Koppich et al. (2007) further suggest, "Interestingly, there seems to be somewhat of a disconnection between NBCTs' assessment of their principals' leadership skills and their assessment of principals' efforts to incorporate NBCTs into their schools' school improvement" (p.17). The lack of collegial collaboration among teacher participants in this study is not necessarily owing to the

lack of desire by NBCTs but to the inability of school leaders to leverage their skills and knowledge to influence school improvement.

Chapter Summary

Traditionally, standardized tests have been used as a tool to verify student achievement. Research supports a correlation between student achievement and school climate (Hoy & Hannum, 1997). Chrispeels (1990) argues that if indeed positive climate is indicative of successful schools, then additional research is necessary to ascertain the elements affecting it.

Attempts to recruit highly-qualified teachers have become priority, leading many states and school districts to invest in the professional development of highly effective teachers, thus allocating funds for programs and initiatives such as National Board certification. Whether the reason is a lack of knowledge about National Board certification, prior negative experiences, or just not being comfortable including NBCTs in the leadership and decision making of the school, NBCTs in both the Koppich et al. (2007) and in this study report that they are not utilized in decisions or leadership opportunities beyond the involvement of non-NBCTs. These practices present a contrary model to the ideal of NBPTS. National Board-certified teachers are considered by many as "elite" educators who engage in a high level of professional development, increasing their knowledge base and skills, and meeting the standards of a rigorous assessment process.

Chapter III discusses the methodology and research design employed in the study. Research questions are introduced, and issues of validity and reliability are addressed.

CHAPTER III

METHODOLOGY

This research study uses a qualitative approach, and this chapter discusses the rationale. It also explores the case study's research questions and research design, addresses issues related to reliability and validity, and examines the data collection and analysis techniques.

Rationale: Qualitative Approach

The broad focus of qualitative research is to provide insights, discoveries, and interpretations that are inductive in nature, which can lead to interpretive or analytical constructs (Creswell, 2003). Qualitative researchers seek to understand the meanings people create about their experiences and the world around them.

This study was conducted as a qualitative investigation using the five characteristics defined by Bogdan and Biklen (2003).The study was *Naturalistic,* using the natural environment as the direct source of data collection. Bogdan and Bilken (2003) state that researchers conduct naturalistic inquiry in order to get a better perspective of events and environment occurring authentically. The data was *descriptive*, using the participants' verbal recollections. Qualitative research assumes that all data is critical and nothing should be considered inconsequential in understanding the setting and the participants under study. The research was concerned with the *processes* of how people negotiate meaning, how labels and terms are applied, and the natural history of the activity or events being studied. The data was analyzed *inductively*. Data was not sought to verify or dispel hypotheses. Rather, the abstractions were built as themes and categories developed. The emphasis of the research was on *meaning*, since the researcher was concerned with how the participants made sense of their environment.

Rationale: Case Study Approach

The case study approach allows the impact of National Board teacher certification to be viewed from multiple perspectives, permitting an analysis of the influence it bears on the climate of the school. The case analysis leads to the development of categories and themes using the constant comparative method. According to McMillan & Schumacher (1998), this process allows the data to steadily evolve into a central theme. This theme is the context that guides the further gathering of data. The rationale for the case study design stems from the nature of the investigation, which includes a particular phenomenon, climate, as well as the context in which the phenomenon occurs (Yin, 1994). This approach allows for greater breadth and depth in describing the impact of National Board certification on the school's climate.

Rationale for the Study

National Board certification has been recognized along with school climate as having a positive impact on student achievement (Boyd & Reese, 2006). An increasing number of states, districts, and/or schools are investing resources in National Board certification of teachers in an attempt to further enhance student achievement. Approximately $600 million in grants and fees have been awarded toward this end. In addition, more than $1 billion has been given in the form of incentive pay toward the attainment of NBPTS certification (NBPTS, 2014). This investment has called into question the rationale for such expenses (Boyd & Reese, 2006). Identifying the impact of NBC on school climate may be useful in helping these stakeholders in their decision making about the allocation of these resources, as well as add to the literature about NBC. This study seeks to identify a connection between National Board certification and school climate.

Research Design

The study is constructed as a descriptive case study following the social constructivist philosophy that people construct meaning from each other (Bogdan & Biklen, 2003). The researcher's job was to analyze the meanings the participants drew from the impact of National Board certification and the school climate it created (Cantrell et al., 2008). This research is a case study because that is the best format to understand processes while discovering contextual features that highlight the issue under study (Sanders, 1981, as cited in Merriam, 2002). A case study is a comprehensive examination of a particular individual or group. It can be qualitative, quantitative, or mixed methods combining the two (Creswell, 2003). This study follows a qualitative design with the defining feature of an encompassing method that seeks to identify all characteristics of the participants and setting under study in a real life context (Yin, 1994). Yin argues that in order to achieve this, case studies depend on a cross section of data sources: interviews, surveys, direct observation, and focus groups, all of which are utilized in this study. The final report is a narrative with thick, rich descriptions.

The rural school setting in the study is a bounded system in terms of time, space, and components (McMillan & Schumacher & Associates, 2002). Concentrating on this single entity allowed for the examination of climate development within a particular context leading to a richly descriptive end product (McMillan, Schumacher, & Simpson, 2000). McMillan et al. (2000) define a sociocultural analysis of a single social unit or phenomenon as a case study. This case study, therefore, attempts to describe and interpret the climate of the rural school setting as a community of practice and to interpret the participants' symbolic meanings and ongoing patterns of social interactions.

A qualitative approach is taken in this study because an inductive investigative strategy was needed (McMillan & Schumacher & Associates, 2002) that allows for an understanding of how the participants make meaning of their environment. The philosophical orientation adopts the social constructivist paradigm in which there is not one objective reality but rather multiple realities constructed from various perceptions (Gay, Mills, & Airasian, 2006). Researchers Gay et al. contend that constructivism is a philosophy grounded in observation and systematic study of the learning mechanism of people. In this paradigm; understanding and awareness are constructed through personal experiences and reflection on those experiences. When new experiences take place, reconciliation has to be made between them and earlier ideas and experiences, perhaps changing what has been believed or discarding the new information as irrelevant. In any case, people are active creators of their own knowledge. To construct this new knowledge, questions must be asked and existing knowledge reviewed and assessed. In the naturalistic-constructivist paradigm, multiple perspectives bring parts of the data into the whole.

Added to the participants' voices are field observations that capture a holistic view of the phenomenon under study within its own context. Gay et al. (2006) advocated the central use of observation in qualitative research to maximize the researcher's ability to experience the world as the participants do, to explore the experience authentically, and comprehend the climate in its raw environment (Creswell, 2003). Constructivism means that knowledge is not found nor discovered; rather, it is constructed by inventing theories and themes to better understand experiences. These constructs are continually confirmed and/or revised as new experiences present themselves (Gay et al., 2006).

Gaining Entry and Informed Consent

This investigation began with contacting the superintendent of the school district by email introducing the researcher as an East Stroudsburg doctoral student conducting a study on the impact of National Board certification on school climate. A brief description of the study design was given, and agreement for participation was secured. Subsequently, the administrator of the school under study was contacted by email to provide a description of the research study and its requirements and seeking an agreement for participation.

Upon receipt of the IRB approval of East Stroudsburg University's Institutional Review Board (IRB), times to meet with the superintendent and school principal and the school's staff were scheduled. After introductions, teachers were invited to participate in a survey, observations, and interviews. They were given a brief oral overview of the study as well as a written description accompanied by an informed consent to participate (see Appendix A). The use of audio recordings to preserve important details during the focus groups and interviews was explained. All data collection occurred on site.

The Study Site

The district of the school for this study, pseudonym Marioville, was formed in 1969. It covers an area of close to 200 square miles in northeastern Pennsylvania. It is a small district with one high school, one middle school, and three elementary schools, enrolling approximately 2,500 students. The location of this study was one of the three elementary schools, henceforth mentioned in this study under the pseudonym Royal Elementary School (RES).

The site of the study is a rural community with a population, as of 2013, of 1,302. The borough's website posts the following data as of December 31, 2013. Population Estimate: 1,302. Median Family Income: $44,458. Per Capita Income: $14,498. Median Age: 43.8 years.

The school is well-landscaped, has age-appropriate playgrounds, outdoor basketball and baseball courts, and an indoor gym with basketball courts. In the 2012-2013 school year, the enrollment was 466 students in grades pre-K-5. The school has a track record of high student performance**,** achieving above 75 percent of students at grade level proficiency in both reading and math over the previous four school years. The school met state AYP goals in 2010, 2011, 2012, and 2013. The student academic profiles for a four-year period are shown.

Table 2

Academic Profile

SUBJECT	YEAR	# OF STUDENTS	3rd grade	4th grade	5th grade	School	State
MATH	2013						
MATH	2012	175	78%	93%	79%	83%	73%
MATH	2011	178	93%	87%	92%	91%	81%
MATH	2010	191	92%	85%	79%	85%	81%

SUBJECT	YEAR	# OF STUDENTS	3rd grade	4th grade	5th grade	School	State
READING	2013						
READING	2012	175	65%	85%	78%	76%	65%
READING	2011	178	*85%*	78%	82%	82%	73%
READING	2010	196	84%	72%	71%	76%	71%

Participants

Study participants included the following:

1) National Board-certified teachers
2) Teachers currently enrolled in the certification process
3) Teachers who participated in, but did not complete, the National Board certification process
4) Teachers not enrolled and never been enrolled in National Board certification.

5) School administrator
6) Other school staff
7) National Board-certified teachers recently relocated to other buildings within the district and/or recently retired.

The participants from this school were selected because of the high number available with involvement and achievement in National Board certification. With a teaching staff of 31, and a total of 72 staff members and administrators, there are eight NBCTs. Another four National Board candidates had been through the process but had relocated to other schools in the district, retired, or not completed certification. The number and percentage of NBC participants in this school is exceptionally high.

Sample Selection

Two levels of *purposeful sampling* were involved: first, the actual case or bounded system of the rural school setting as the overall unit of analysis was selected for its information-rich context. The study school boasts of having more than one-fourth of its teaching staff National Board certified. This number is significant in comparison to the percentages of the district, the state of Pennsylvania, and the country at large. A comparison of these populations is shown in table 3 below.

Table 3

NBC Population Comparison

	#TEACHERS	# NBC	% NBC	SOURCE
US	3.7 MILLION	102,000	3.4	NBPTS, 2013
PA	131,000	1043	.79	PDE, 2013
WWSD	167	21	12.5	WWW.MSD.ORG
RDW	31	8	26.0	WWW.MSD.ORG

Second, a *theoretical sampling* (Freebody, 2003) or, as Patton (2002) refers to it, an *opportunistic sampling* of individuals to interview and activities to observe were chosen from the larger unit of analysis, affording the flexibility to follow new leads during the fieldwork. These strategies best served the purpose of truly understanding participants' experiences. McMillan and Schumacher (1998) described the use of theoretical sampling as beginning with an initial sample chosen for its obvious relevance to the research problem in which the data will be a guide to the next person to be interviewed. Upon consent, staff was formally interviewed. In addition, during field observations informal discussions occurred with many staff members from various grades which significantly furthered the understanding of the participants' learning and working experiences. Analyses occurred simultaneously with identifying the sample and collecting data.

Data Collection

Instrumentation

Survey: Organizational Health Inventory-E

The theory for organizational health in schools originated from the inquiry of Parsons, Bales, and Shils (1953) and Halpin and Croft (1963). The OHI-E (Appendix C) was then used to measure the organizational climate/health of the participating school by requesting teachers to respond to the instrument. A mean score was computed for overall organizational climate (Hoy & Tarter 1992). The OHI-E is a 37-item survey developed by Hoy and Feldman to assess the five basic characteristics previously described. Questions specific to each of the elements are outlined in Appendix D. Instructions for administering the OHI-E is also illustrated in Appendix D.

Reliability of the OHI-E

Hoy and his colleagues measured each dimension as a subset of the OHI-E and concluded that the reliability scores for each was reasonably high**.** Table 4 shows the reliability scores of each subset (Hoy et al., 1991).

Table 4

Cronbach's Alpha for OHI-E Subtests and the Number of Items Measured

OHI-E subtest item	Cronbach's alpha	Number of items in
Institutional Integrity	.90	6
Collegial leadership	.95	10
Resource Influence	.89	7
Teacher affiliation	.94	9
Academic Emphasis	.87	5

Construct validity of the OHI-E

In addition, Hoy et al. (1991) conducted a factor analysis of several models of the OHI-E tool. This analysis endorsed the construct validity of the theory of organizational health. Other studies by Hoy et al. (1997) support the predictive validity of the instrument. The OHI-E is an effective tool that reflects the cooperative arrangements in a school (Hoy et al., 1991). The measure is relatively unobtrusive, simple, and easy to score. It also takes less than 10 minutes to complete.

Observation

The teachers, staff, and administrators of the target school were observed in their natural setting as they conversed, worked together, socialized, and collaborated. Data was recorded using the following methods:

Field Notes: Field notes and anecdotal records were used to document observational data. Field notes are narrative and reflective descriptions of events as they are occurring in real

time. They are most frequently used for close, detailed observations (Creswell, 2003). Teachers' behavior, teacher-to-teacher interaction, administrator behavior, teacher-to-administrator interaction, staff behavior, teacher-to-staff interaction, and staff-to-administrator interaction were recorded. All data was recorded as it naturally occurred during the course of the school day.

Interviews

Every teacher involved in the surveys and site observations was interviewed. The interviews were designed to determine the participants' perceptions of the effect of National Board certification on the school's climate and compare these answers to the information gathered from the site observations and surveys. The interviews were conducted face to face and were audio recorded and transcribed via an internet service. As part of the informed consent, participants acknowledged at the beginning of the interviews that they were aware of being audio recorded. Each interview lasted for approximately 30 minutes.

Focus Groups

Focus groups are collective conversations or group discussions exploring a set topic(s) (Liamputtong, 2011). The group can vary in size and is focused on a shared topic/activity (Liamputtong, 2011). The main purpose of the focus groups in this study was to gain an understanding of how the collective body made meaning of the environment, specifically the impact of National Board certification on the climate of the school from the perspective of the participants (Liamputtong, 2011). Focus groups for this particular set of participants were chosen for their usefulness in investigating and analyzing the thoughts and motives of the participants without added pressure on them to draw conclusions or compromise.

Focus groups were also conducted among small groups of non-teaching staff members about the topic of this study (Wilkinson, 2004). These specific participants were selected because

of the indirect contact they might have had on a daily basis with Board-certified teachers and to gain a holistic perspective on the climate of the school. The focus groups were comprised of administrative assistants, custodians, food service staff, classroom aides, medical field staff, as well as teachers of related arts. Focus groups were scheduled according to the availability of the participants and were conducted on-site during the three-week time frame. All participants received and signed a copy of the informed consent and acknowledged their agreement to being audio recording. Focus group discussion sessions lasted for approximately 30 to 40 minutes.

Procedure

All study participants were initially contacted by email. Subsequently, the school was visited and explanations of the purpose and procedures for the study were given. Agreement for participation and scheduled times for interviews were solicited. Follow-up emails were sent to participants to confirm interview times.

The OHI-E was administered as part of teachers' team meetings as well as distributed to individuals at the beginning of interviews or in casual conversations. Six respondents who were not available to be personally handed the survey instrument. The instruments were delivered to these participants by the school secretary, who later collected them in sealed envelopes. The anonymity of the respondents was guaranteed; participants were not asked to supply any identifying information when completing the survey. Interview data was collected during a three-week time frame. Data from candidates was also collected through audio-taped, semi-structured, in-person interviews as site visits occurred, followed by telephone interviews as needed. Interview protocols served as a guide for the flow of the telephone and face-to-face interviews. Initial interview questions are found in Appendix B. Follow-up telephone interview questions are also found in Appendix B. Data was collected from building administrators in semi-structured,

face-to-face interviews and phone interviews. These interviews were recorded and subsequently transcribed. Protocols were established to guide questioning.

Confidentiality of the participants is a top priority. Therefore, participants were given the option to not answer any of the questions or stop the interview if they were ever uncomfortable. Member checks were conducted with the participants in order to clarify information from the interviews and observational field notes (Creswell, 2003; Merriam, 1998). Each of the research participants had the opportunity to review the data as it related to them specifically. They were also given a summary of the final results of the inquiry and were allowed to offer comments on whether or not they believe the data were interpreted in a manner congruent with their own experiences. These member checks were especially important to the interpretation of the data in designing the findings chapter as a portrait of the teachers' experiences. Lightfoot (1983) contended that case studies are, in fact, portraits because they capture an essence of the subject by telling its story from the inside out.

Due to the naturalistic nature of the study, observations took place on site during the required work schedule of teachers, staff, and administrators over a period of three weeks. Teachers and staff were aware of the visits but not of exact dates and/or times. To procure a comprehensive view and understanding of interactions and relationships between participants, observational data collection also occurred at times before and/or after the official work hours of the participants.

Data Analysis

This study involved an intimate liaison between data collection and data analysis (Freebody, 2003). A naturalistic process of data collection and data analysis caused adjustments in interview and observation techniques and questions. Suggested by Richardson (2000) and

Janesick (2000), crystallization was utilized in the data collection and analysis process in order to discover categories and themes reflective of the participants' related experiences.

Survey Data Analysis

The OHI-E (Appendix C) was utilized to measure the climate/health of the school by requesting teachers to complete the instrument. The items were scored numerically ranging from 1 to 4, with descriptors assigned respectively as; rarely occurs, sometimes occurs, often occurs, very frequently occurs. Some items on the survey were inversely scored with descriptors rarely occurs receiving a 4 and so on. Individual surveys were tallied for each respondent, and then an average score for each item on the survey was computed.

The total of all scores signifies the overall health of the school. The average school scores 500. A score of 600 or higher signifies a very healthy school, and a scores below 450 are indicative of increasingly less healthy school climates. Health index numbers are converted into categories ranging from very high to very low using Health Index Conversion Table 5.

Table 5
Health Index Conversion

Health Index Number	Category
Above 600	VERY HIGH
551-600	HIGH
525-550	ABOVE AVERAGE
511-524	SLIGHTLY ABOVE AVERAGE
490-510	AVERAGE
476-489	SLIGHTLY BELOW AVERAGE
450-475	BELOW AVERAGE
400-449	LOW
Below 400	VERY LOW

Observation Data Analysis

Site observations of the natural interactions of the participants in the school setting took place during the spring of 2013. Field notes and anecdotal records were kept. Observations created in-depth knowledge that needed to be analyzed using an inductive process. Qualitative researchers have encouraged the use of computer-assisted qualitative data analysis software (CAQDAS) (Lewis, 2004). Data from the observations were grouped into meaningful patterns and themes using a qualitative data analysis software program NVIVO, as recommended by Creswell and Maietta (2002). Consideration was given to patterns in terms of the larger questions of the study. The main objective of qualitative data analysis is the conversion of data into findings, interpretations, and conclusions (Creswell, 2003). According to Patton (2002), data analysis involves screening the raw data collected, examining significant material, and simultaneously creating a theory for communicating the gist of data. The NVIVO software was created and tested by Qualitative Solutions and Research Pty., Ltd., Melbourne, Australia. NVIVO was selected for data analysis in this study because it assists in manipulating data, searching, coding, and interpreting, and retrieving records rapidly and precisely. NVIVO also analyzes literature more accurately and is more flexible than other software (Lewis, 2004). Data was processed by the software using content analysis, which includes coding the data for certain words, behaviors, and interactions, identifying their patterns, and interpreting meaning. It also included a more thematic analysis, with data grouped into themes to try to answer the research questions.

Interview Data Analysis

Each interview was audio recorded and transcribed via an internet service. Using preliminary exploratory analysis, NVIVO software was used to examine the data to gain more

familiarity with the interview information. From this initial review of the transcripts, themes emerged. Connections were sought to the research questions by describing and further developing themes from the data to answer the major research questions. The themes identified were revisited with the major research questions as the lens for analysis. In this study a major research question was, "How do teachers perceive the effects of National Board certification on school climate?" The themes were refined in order to address this question. The original themes were broken into subcategories that better addressed the question. The process was then repeated for research question number two relative to the administrator participants.

NVIVO software was used to create a coding scheme that best defined the themes that had been identified and provide a way to separate the data for further analysis. The data was then reviewed within the themes or categories, and an understanding of each theme was reached.

Focus Group Data Analysis

As with the interview data analysis, focus group data was recorded and transcribed using an internet service. The researcher again used NVIVO software to identify themes and create a coding scheme in order to get a sense of emerging patterns, make interpretations, and guide the direction of the analysis. Connections were made to the research question, “How does staff perceive the effect of National Board certification on school climate?” This question was appropriate for analysis of this data set since the focus groups were comprised of the school’s non-teaching staff.

Validity

In qualitative research, validity refers to the legitimacy of the data collected or the assumptions made based on that data by using a specific methodology for a particular purpose (Strauss & Corbin, 1998). Four forms of validity in qualitative research according to Straus and

Corbin (1998) are descriptive, interpretative, theoretical, and external. *Descriptive validity* refers to the legitimacy of what is reported from what the researcher sees and hears. Descriptive validity can be nullified by incomplete recounts of events or inaccurate descriptions critical to the interpretation of the study. To overcome these threats to validity, it was important that this study included a variety of data collection instruments, not relying solely on the senses of the researcher. Accuracy of accounts was achieved as the participants' language was used through recorded observations, interviews, and informal conversations.

Interpretative validity relates to the conclusions and generalizations derived from the subjects' words and activities in the setting of the study (Strauss & Corbin, 1998). The data for this study was collected over a lengthy period through multiple sources in order to address interpretive validity. Use of multiple sources resulted in simultaneous analysis, data evaluation, and justification of understandings. The use of NVIVO, a research-based and -constructed software for coding, further reduced any threats to validity. Emerging themes were thus verified by content rather than researcher bias. Member checks were included so that the perceptions of participants were used to verify interpretative and descriptive validity (Strauss & Corbin, 1998; Bogden & Biklen, 2003).

Theoretical validity discusses relationship between concepts (Bogden & Biklen, 2003). Theoretical validity was addressed in this study through the presentation of descriptions of key terms in the study and in the data sources. One component of theoretical validity is internal validity, which shows how the explanation for the subject of the study is connected to the realities of the world. This study addressed internal validity through the comparison of data collected and analysis techniques that corroborate findings of the data through member checks. Another dimension of theoretical validity is *external validity,* which refers to the ability to

extrapolate current findings to analogous circumstances, comparability, and to successive study, translatability (McMillan & Schumacher, 2006). Threats to internal validity were minimized in this study through the purposeful and methodical sample and setting selection and theoretical interpretation of the findings.

To address additional threats to validity, triangulation of multiple data sources occurred. Data was collected, crosschecked, and validated through member checks and inferences (Gay, Mills & Airasian, 2006). Validity was also secured through a lengthy period of observation, multiple interviews of participants, and audio recordings of interviews (Gay, Mills & Airasian, 2006). Data collected was corroborated between the researcher and the participants. The findings of the study within the context of prior research on school climate and National Board certification were discussed so that this study could be replicated or extended.

Reliability

Reliability is the regularity with which a particular phenomenon can be repeated (McMillan & Schumacher, 2006). Patton (2002) states that reliability is an important factor to which the qualitative researcher should be attentive when designing a study, analyzing data, and drawing conclusions about the study. Qualitative research is individual and unique because of its subjective nature. The uniqueness of this research required an assortment of methods to address threats to reliability (McMillan & Schumacher, 2006), including member checks, audio recordings, and subsequent transcriptions of conversations, meetings, interviews, and direct quotes.

Ethical Considerations

Because this research was qualitative in nature, including observations and interactions with the participants, the following ethical issues are considered. Researchers are required to

obtain informed consent from participants and others involved in the study (Orb, Eisenhauer, & Wynden, 2001). This study was fully explained and pertinent information revealed to participants in order to ensure informed consent and so that they did not feel pressured into participation (Orb et al., 2001).

Respect and protection was offered to the participants in that all participants were assured of confidentiality of information shared (Orb et al., 2001) and remained anonymous through the use of pseudonyms. The case study includes descriptive methods in order to describe the nature and type of effects noted. To achieve this, it became necessary to probe, restructure, and/or ask for clarification on initial interview questions. It was essential for participants to maintain their relations with their employers and colleagues; therefore, the data was collected and analyzed, coded, and kept private. During the initial interviews, the participants' names and room numbers (if applicable) were recorded. This information was important for further probing and/or clarifications in the form of follow-up interviews as needed. This information was also necessary for member checks, as the participants were offered the opportunity to read the work and offer feedback on the interpretations of their stories. If their accounts were not portrayed accurately, changes they believed to be necessary were made. There was no harm or risk to the participants because the researcher had no authority over the participants in the study and their confidentiality remained intact through the use of pseudonyms.

Chapter Summary

Chapter III reaffirms the purpose of this study, which was designed to capture differing perspectives about the effects of National Board certification on school climate, through open-ended interviews, surveys, observations, artifacts, and analysis to examine the implications of those multiple perspectives. The study was identified as a qualitative case study; the

methodology of this study was then outlined. Sections of population, limitations, procedures, data analysis, reliability, and validity, as well as the importance of the study, are all detailed. Chapter IV presents the findings, including the collective results of the survey, as well as findings from site visits and interviews with the school's administrators, faculty, and staff.

CHAPTER IV

FINDINGS

Introduction

In the past, school climate has been studied through several variables, among them school spirit, teacher morale, and teacher effectiveness (Hoy, 1990; Rafferty, 2003). Hoy and Tarter (2008) studied several aspects of school climate: supportive principal behavior, directive principal behavior, principal influence, and resource support. Hoy and Sabo (1998) studied school climate via critical components of effective schools. A study focusing on organizational health and the kind of school climate that nurtures trust within a school was published by Smith et al. in 2002) No studies, though, have examined National Board certification and school climate.

This chapter contains the findings of this study, which was designed to explore the perceptions of teachers, staff, and administrators of the effects of National Board certification on school climate at Royal Elementary School (RES), a school in Marioville, a rural school district in northeastern Pennsylvania.

The study sought to answer three research questions:

1. How do teachers perceive the effects of National Board certification on school climate?
2. How do administrators perceive the effects of National Board certification on school climate?
3. How do staff perceive the effects of National Board certification on school climate?

To answer these questions, a qualitative case study was conducted focusing first on the overall climate/health of the school as it relates to National Board certification of a significant number of the school's teachers. The research methods used to gather data for the study were based on the tradition of Brookover and colleagues (1978), whose work explores the relationship between elementary school climate and student achievement. The research instruments used in this study, however, more closely followed those developed by Hoy and colleagues (1991), who extended Brookover's work, as described in Chapter III.

Instrumentation

Survey

Data collection occurred during the spring of 2013. The OHI-E was used to determine the general climate of the school in the study. A copy of the OHI-E is available as Appendix C. The formulas provided by Hoy et al. (1991) were utilized to score the OHI-E. This process allowed for the computation of the score for each subtest and subsequently an overall health index. To score the OHI-E, the guidelines, found in Appendix C, were used as prescribed by Hoy (1991).

School Profile

The health profile of the school in this study was determined using the normative process designed by Hoy and his colleagues (1991), based on the score, percentile rank, and classification information presented in Table 6.

Table 6
Range and Implications of Scores

OHI-RE Score	Percentile Rank	Health Classification
800	99th	Very High
700	97th	Very high
600	84th	High
500	50th	Average
400	16th	Low
300	3rd	Very low
200	1st	Very Low

The OHI-E was administered to the 67 teachers, staff, and administration following the instructions for administering it (see Appendix C), with a return rate of 94%. Results from the OHI-E provided scale scores for both overall organizational health as well as each of the five individual components. On the OHI-E, the professional members of the staff at RES indicated their belief that the overall health is average, scoring 510, although there is considerable disparity within the subtests, indicating that some areas are very healthy while others are not. Discussion of the possible reasons for these differences among subtests below will be discussed in Chapter V.

Table 7

OHI-E Results

School	Return Rate	Teacher Affiliation	Collegial Leadership	Resource Influence	Academic Emphasis	Institutional Integrity	OVERALL HEALTH INDEX
Marioville	94%	750	700	431	370	332	516

Analysis of Survey Instrument Subtests

This section examines the results of the OHI-E survey. Response data focusing on the questions specific to each of the five subtests--Institutional Integrity, Collegial Leadership, Resource Influence, Teacher Affiliation, and Academic Emphasis--are outlined. Two of these subtests reported very high and two others reported very low degrees of climate health, with one in the low category. This analysis begins with the two highest performing areas as they exhibit what most would think of as a healthy climate – Collegial Leadership and Teacher Affiliation: how faculty, staff, and administrators get along with one another. This analysis is followed by an analysis of the two very low categories and the one low category, which contradicts the

thinking that with a high population of National Board-certified teachers there would be no areas of low climate health.

Collegial Leadership

The teachers at RES Elementary express a very positive view of their school's collegial leadership. Collegial leadership refers to the principal as being effective in creating a sense of community by first establishing positive relationships between herself and the staff. Principals with high collegial leadership are approachable, supportive, and considerate, while establishing high standards (Hoy, Karter, & Kottkamp, 1991). This subtest produced a score of 700, which is considered very high. On average, a large majority of the teachers and other staff at RES believe that the principal is friendly and approachable, discusses classroom issues, conducts meaningful evaluations, and maintains definite standards of performance. However, the lowest score (<50%) related to the principal's relationship with the teachers; the principal was perceived as not treating the faculty as her equal. That is a relatively low score in comparison to the other items in this subtest. It raises questions about the leadership style and will be discussed further in Chapter V. Despite the low score on this item, the overall score in collegial leadership shows that teachers and staff believe the principal treats all parties fairly when making decisions and is willing to make changes when necessary. This data shows that the principal overall is viewed in a very positive manner.

Teacher Affiliation

The level of teacher affiliation is 750, which is considered very high. This category was the strongest of all subtests, indicating that teachers like, and work well with, one another. Scoring this high in the area of teacher affiliation signifies that the teachers trust one another, feel good about each other, enjoy working together, and are dedicated to the students and the

profession. All respondents said they are committed to their students. Almost the same number agreed that they are friendly with each other, proud of their school, enthusiastic about their work, and trust and confide in each other. There seems to be high morale among the staff, as indicated by the high rating in the teacher affiliation category.

Resource Influence

Unlike the generally high score in the area of collegial leadership, several teachers at RES perceived their principal as having limited capacity to affect the actions of her supervisors, as indicated by the resource influence score of 431, which is low on the scale index. In this subtest, only half of the participants responded that they receive necessary supplies. They tend to believe that the principal sometimes lacks the ability to acquire materials such as classroom supplies and support from outside the school when necessary to meet immediate classroom needs. The data suggests that the teachers do not perceive the principal as an extremely positive force in influencing change outside the walls of the school as it relates to school issues.

Intuitional Integrity

The level of institutional integrity for the school is very low, 332. This category refers to how the school relates to and is perceived by the community, specifically, the school's ability to maintain its educational integrity while coping with external pressures. This proved to be the lowest of the five areas of school health. Respondents answered that the school is vulnerable to outside pressures. Many responses indicate feeling pressure from the community. Despite the fact that only a few survey participants responded that select citizen groups are influential with the board, the collective data from this subtest indicate that the teachers are somewhat concerned about the vulnerability of the school to outside interests. Responses illustrate a degree of concern about the pressures on the school from parent or community groups not affiliated with education.

These findings indicate that the staff of RES tends to believe that pressure from outside the school influences building-wide decisions.

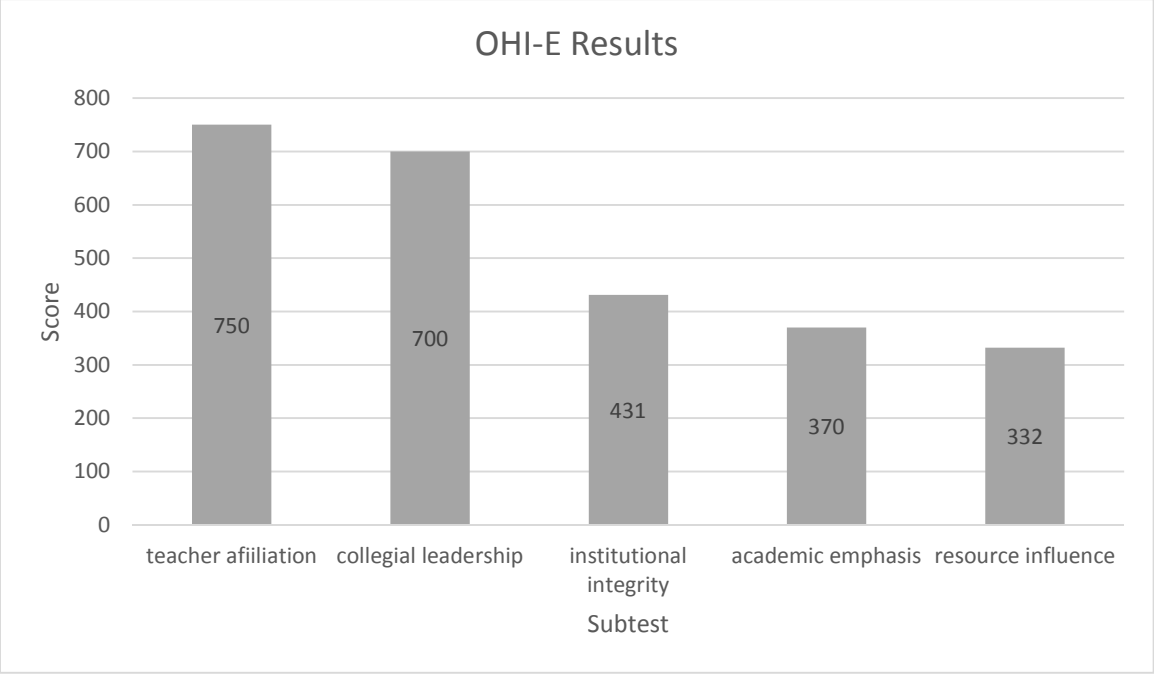
Academic Emphasis

According to the standardization of scores performed in 1997 by Hoy and Tarter, a school that scores 370 in the area of academic emphasis is in the third percentile of schools nationwide. Academic emphasis, these researchers say, is the school's pursuit of superiority in academics. The results of the OHI-E suggest that the teachers believed that the school does not emphasize academics, although about two-thirds of respondents reported that students respect others who get good grades and are cooperative during classroom instruction. However, only a small few stated that students try hard to improve on previous work, seek extra work so they can get good grades, and complete all homework assignments. Collectively, the teachers indicated that the level of academic emphasis, 370, is extremely low.

While the overall health of the school is in the range considered average, the differences between the perceived levels in each dimension are made clearer when viewed in chart form (see table 8 below).

Table 8

Results of OHI-E



The differences between responses to each subtest are apparent. With the focus of the study being on National Board certification, the starkest responses are those in academic emphasis, which one would be expect to be significantly higher given National Board's emphasis on student learning. This discrepancy will be discussed further in Chapter V.

Interviews and Focus Groups

The research of this study took place at a school site selected through purposeful sampling. All teachers in full and part-time positions were interviewed. Second interviews were conducted with NBCTs. In addition to the teachers selected, in order to get the administrative view, related administrators were interviewed.

Interview protocols were developed as if a journey was being undertaken with the participants (Appendix B). Three sets of interview protocols were developed for this study. Two

were utilized with the National Board-certified teachers. The initial contained 19 questions, and the follow-up protocol contained 16. Another, with 21 questions, was designed for non-National Board certified teachers. A third containing 19 questions was specific to the administrators. Two different teacher protocol types were designed for this study based on National Board-certification status since some of the questions were specific to teachers who had gone through the National Board-certification process, while others had not. Focus groups were conducted with staff at the school to gain a broader perspective and to triangulate the data from the interviews and surveys.

Hoy's research on organizational health served as a conceptual framework guiding the development of the interview questions. Questions dealt with the three tiers of organizational health (institutional, managerial, and technical), each of the five subsets of the OHI-E as designed by Hoy and Tarter (1997), as well as the five propositions of the NBPTS. An example of a question dealing with the institutional level factor termed Institutional Integrity was, "Describe the school factors that you believe would further support improvements in/maintenance of your school's climate?" A question from the managerial level concerning Collegial Leadership was, "How has the number of NBCTs in this school had an impact on the climate of this school?" Also from the managerial level, a question about Resource Influence asked of the principal was, "What impact does having NBPTS certified teachers have on your school?" A query about teacher affiliation from the Technical Level was "Have you worked with colleagues on any school-level issues of teaching and learning since achieving NBPTS certification? If yes…please describe." These questions all address proposition five of the five core propositions of NBPTS (2013): *Teachers are members of learning communities*. A question about academic emphasis, also from the Technical Level of control was, "How has your teaching

changed as a result of the NBC process?" This question was related to proposition four: *Teachers think systematically about their practice and learn from experience.* Table 10 illustrates how interview questions of Board-certified teachers align with the core propositions.

The following case study integrates the data gathered from the interviews, focus groups, and the researcher's observations at the research site. The context for the school is explained, followed by the findings, organized according to the subscales of the organizational health framework: Collegial Leadership, Teacher Affiliation, Institutional Integrity, Resource Influence, and Academic Emphasis. The interviews were taped and transcribed, then analyzed for overarching themes and conclusions. Specific supporting quotations from interviewees and the results of each dimension are discussed below.

Case Study

This is a case study of a rural elementary school in northeastern Pennsylvania derived from three weeks of visits to the school at the end of the school year during which the researcher conducted a staff survey, focus groups of specialists and non-classroom teaching staff, and interviews of administrators and National Board Certified Teachers. Follow-up interviews of National Board Certified Teachers were made the following February to clarify issues that had arisen from the analysis of the initial data. Below is a description of the interactions with the school personnel and findings therefrom.

The Context

The morning the researcher arrived at RES was a beautiful, clear, day in May. The sun had risen, illuminating the beauty of the countryside in which the school was located. The building was set away from the main road to the left of an impressive driveway. A couple of

hundreds of yards in, the oval shaped driveway is divided down the middle by lush trees and shrubbery. It is southbound to the right, leading to the school, for entering traffic, then looped around, leading to the parking lot, then northbound past the main entranceway, returning to the main street. On the grounds surrounding the school are baseball fields and basketball courts. Between the parking lot and the front entrance is a small playground. To the rear of the building is another playground and adjacent play area with a sand box and other games. The building is a late-twentieth century, two-storied, somewhat U-shaped, surrounded by shrubs and other plants. In addition to the main front entrance, there is a small entrance at the front left of the building and another on the right side. Five narrow pathways lead into the front entrance.

The researcher arrived at 7:00 a.m. hoping to catch a glimpse of the interactions among and behaviors of the teachers and staff as they arrived to begin their work day. A few teachers arrived wearing light jackets or sweaters to shield them from the cool morning air. The teachers walked up a ramp to the entrance at the side of the building leading from the parking lot. At 7:30 and the researcher was buzzed into the building by the office secretary and was greeted at the end of a long hallway by Carol, one of the two school secretaries. She was greeting the researcher by name and promptly notified the principal.

The main office was a wide, open area with several smaller offices. Directly to the rear was a small bathroom. Situated to the right of the bathroom was a conference room with a long rectangular table and several chairs, and to the left of the bathroom was another small office from which the principal emerged. She greeted me and escorted me into her office. Initially, our conversation was casual, but then it moved to the reason for my visit. We had met previously, had communicated a few times by telephone, and the researcher had emailed her an outline of the study, nevertheless the researcher took this time to again review the purpose and

design of the study. Just before 8:00 a.m., the principal excused herself to attend to the arrival of the buses. A surprisingly short time later she returned. “That’s all the time it takes,” she smilingly responded to my quizzical look.

RES -The community

RES Elementary School (RES) is located in Marioville, a small, rural school district in northeastern Pennsylvania. The school district, formed the late ’60s, encompasses nearly 200 square miles and serves less than 2,500 students in three elementary schools, one middle school, and one high school. The principal informed the researcher that the community feeding students to RES is considered lower-middle class, with a median annual family income of around $40,000.

Marioville is about 10 miles from any larger communities with supermarket chains and shopping plazas. Within two miles are just the bare necessities along the state highway – a gas station, convenience store, and pizza restaurant. It is a tight-knit community of just a few crisscrossed streets and large expanses of wooded areas and farms beyond. The homes that line the main road perpendicular to the school’s driveway are neat, orderly, and well-manicured but modest, evidence of their occupants’ economic status. Many of the residents have lived in Marioville for a long time, including the teachers. The impact that the community has on the climate at RES is apparent in participants’ responses.

Shanin, a teacher at RES, and several other study participants alluded to the fact that because RES is such a small community, many of their children attend, or have attended, RES. Saw several such students entered the building with their teacher-mothers during the observation period of this research. Carol, a teacher who has lived in RES all of her life, said, “Some of us went to school here at RES. Now our children go here. We have a real sense of attachment to this

school." Kate, who also lives in Marioville, added that their children play on community teams, including baseball and football. "This [RES] is a small place. Everybody knows everybody." But Kate believes a changing demographic "is having a huge effect on RES." When probed further, she explained that the student population had been shrinking even though there had been an influx of students from other districts, and particularly other states. This change had come, she maintained, with changes in parental support. "We just don't have the [parental] support we used to. Students don't return homework, and it's difficult to contact some parents. Sometimes families are here for short periods, then they move [out of the district]" These views are explored further in upcoming sections.

The principal reiterated these notions when questioned about the impact of this change on the school, "There has certainly been a change, and we've had to try to adjust. The teachers and staff work as hard as they always have to see that our students succeed." Further probing revealed, "There is a bit more stress on the teachers, but they support each other." Support came in the form of encouraging words and student supplies. Mary, another first grade teacher, said, "Sometimes we'd see a child with worn shoes, and the next day a teacher will come in with shoes for that child. Whether or not it is one of their own students, it doesn't matter."

The relationship between the residents of the community and the educational environment has become increasingly strained. Erin revealed that historically in this rural community there has not been a huge value placed on education and teaching. The recent financial incentive given to teachers who successfully complete National Board certification has also become a point of contention because the district is now experiencing some financial woes. Written into the contract, successful NBC candidates are able to move to the top end of the pay scale. Close inspection of the teachers' contract salary schedule revealed that a teacher with a

master's degree plus 48 credits and 16+ years in the district may see an increase of about $3,000; however, a third-year teacher without a master's degree, potentially gained more than $20,000, which is the salary designated for a doctorate. Teachers who had both a doctorate and National Board certification would receive an extra $3,500. Teachers feel that the community, in hindsight, believes that it was risky to incur such a great expense. They reported feeling that the community was unhappy with including certification in the teachers' contract at such a huge salary differential and resulting expense to taxpayers. In contrast, when administrators were asked about possible backlash from the community about this expenditure, they stated that the community is mostly unaware of the significance of the contract and, with the exception of very few, have not become involved in district matters.

Along with this perceived financial burden to the community, there has also been an influx of people from New York and New Jersey, according to Mary, a view which was verified by the secretary in charge of school enrollment. The area of the community previously labeled informally by residents as the "rich section" is now the home of a new population and includes low-income homes and section eight rentals. Although teachers report that the demographics of the community have been changing, district data show that the staff composition of RES elementary, as outlined in the next section, has remained constant.

RES –The School

RES, one of three elementary schools in the Marioville School District (MSD), was opened in the early 1980s and was named after a former school district principal. It has a total staff of nearly 70, including about 30 teachers. The composition of the RES staff is predominantly female and Caucasian. The mean age is 36, with experience ranging from several first-year teachers to a veteran with more than 30 years. The preponderance of female staff

present at RES is not unusual in the field of education but it may lend itself to an interesting dynamic. Most teachers and staff report that the school has a very close-knit family atmosphere. Donna, a para-professional said, "I think we're sort of more of a family-type staff than one that is not." Sarah, on out-of-classroom staff member, added, "I mean I hate to say it's a family and be cliché about things, but it is truly a family. I think just the support we have for each other is phenomenal."

Royal is a two-story building, set a few hundred yards from the main road, that accommodates approximately 250 students in 21 classrooms, ranging from pre-kindergarten through fifth grade, including two emotional support classes and two for autistic students. The pre-kindergarten, first, second, and autistic classes are located on the first floor, along with the library, music room, gym, art room, cafeteria, auditorium, and faculty rooms. The school psychologists also have an office here. The second floor is home to the third, fourth, and fifth grade classes, and a science lab.

The general staff population included two secretaries, five custodians, five food- service persons, 16 para-professionals, a guidance counselor, a school nurse, and two psychologists. The school also shares some staff with other schools in the district: a vision therapist, a social worker, an occupational therapist, and a hearing therapist. As depicted in table 8, Appendix H, the majority of teachers, both NBC and non-NBC, have spent the bulk of their teaching careers at this school.

The aforementioned increase in families moving into the district noted in the previous section is coupled with a high transiency rate. The principal revealed that students are moving away after very short periods in the community. Teachers like Mary agree that it "causes a disruption to the class schedule and throws a curve in planned instruction." Paradoxically,

despite the population inflow, there has been a rapid decline in student enrollment at RES over the past five years. It lost just over a third of its students between 2009 and 2013. When asked about her thoughts on this drop, the principal surmised, "I think the struggling economy is playing a big role. Parents are moving away looking for employment or seeking higher wages than we can afford here in Mario [County]." Further research shows that after a rise of seven percent in the early 2000s, there has since been a one percent decline in population in the borough of RES since 2005.

In response to question four, *how would you describe the atmosphere here at RES?* Statements of focus group one's members were positive in regards to teacher affiliation. Trish said, "It's really great here. I really like it. The atmosphere in general is wonderful." Kara added, "It's very enjoyable. I have no intentions of leaving."

The participants reported a sense of dedication to the students and other teachers. Mary said, "It's amazing. You'll find teachers here at four and five o'clock in the evening. Not because they are asked to, but because they want to be ready for those children the next day and to be their best." Carmen referred to time that teachers spend outside of work hours to show their support for the students and each other:

> Like just last Saturday a friend that teaches here and I went to one of the baseball games where the kids were at. I don't know too many school systems where they do that. You know maybe if their kid was there, but we don't do that. We were like, '12:40, we're going to go to their game.' I think everyone goes out of our way to help the kids, and it shows.

Focus group two also made statements that indicated strong teacher affiliation, even higher than focus group one. Dana stated, "I like it. I have liked it since I started working here seven years ago, and I actually live out in the south end of town, so I have a pretty good drive.

But I like the school. It's a close-knit community, and teachers and the principal have been very supportive. It's a very nice school." Concurring with Dana's sentiments, Jess said, "I guess it's wonderful because in its own way it's unique. I don't want to go anyplace else."

Members of focus group number three made the following statements. "The staff really like each other, it is just so great here. The teachers also really appreciate everything you do for them and their students." Danielle spoke of the rewards that she gets from working with the teachers. "I mean they're appreciative of anything you do for them. Whether it's making photocopies or working one-on-one with a kid, they're just so thankful."

Focus group four had a combination of negative and positive sentiments. Carol said, "We have had some problems you might say in the past." She went on, "I have seen others not as close and working together as well as maybe I think they should be." Kelly also mentioned some negative past situations, saying, "There are some other issues I think going on in the school that no one wants to talk about." Terry acknowledged that "there might be issues, as in most organizations, but I think that for the most part the staff like each other and get along well with each other. It's like a large family here" Betsy agreed: "It is like a family. I agree with Terry." Therefore, while each of the groups showed signs of healthy teacher affiliation, focus group two made statements that indicated a deeper affiliation among the teachers.

Statements made by staff members of RES verified the strong teacher affiliation. A clear theme in the responses of the participants was that they felt a sense of family, "It's a very close-knit family atmosphere." Tracy said, "When they [NBCTs] were going through it [the process], we were all there for them. We supported them in any way we could, just like we would do for our own families." Sheena added, "I mean I hate to say it's a family and being cliché about things, but it is truly a family. I think just the support we have for each other is phenomenal. This

was even more evident when they [NBCTs] were going for certification." Charles said, "We are truly a family." Donna added, "We have a very cohesive staff," and Kristin described "a real family feel." The idea of the staff being a family could be found in statements from many of the interview participants. In general, all groups felt that teachers were friendly, got along well with each other, loved their jobs, were committed to their students, and supported each other. The consensus, summarized by Jess, was although there was always closeness among staff members, this intimacy matured as the need to go through the process together as a family developed.

Understanding the Climate at RES

After the principal returned from bus duty, the researcher posed the question about the impact of NBC on the climate of the school. She admitted, "I am not quite sure I've ever really thought about it in terms of their impact on the climate." She paused and then said, "It is an interesting question." She then added, "I would have to give it some thought." We then talked about the data I would need: names and room locations of NBCTs and a schedule of times I could meet for interviews with each participant. The principal offered to create a schedule of such times and teacher names. I requested a map of the school; this prompted the principal to propose a tour of the building.

As we entered the main office area, the principal reintroduced me to Carol and Dee, briefly giving a synopsis of my purpose for being there. They had both been included in the email sent to faculty and staff introducing me as a researcher and giving a synopsis of my study. Carol found the project "very exciting" and both vowed to help in any way they could. We walked on.

The office empties out into a huge foyer, along the right side of which was an entrance to the cafeteria, a theatre style auditorium, and another exit that rendezvoused with hallways

leading to rooms on the other side of the building. The left wall of the foyer was the site of a trophy cabinet that housed many of the district's trophies. The principal explained that this was not only the home of many awards from various schools in the district but also of some community groups. In the middle of the foyer was a display cabinet that showcased artifacts of historical significance to the community. These included the remnant of a boat retrieved from the river that runs nearby, Native American artifacts from indigenous tribes, and a replica of an old Town Hall.

At the end of the foyer, the hallway turning left led to the library. A teacher standing in the doorway waiting for an approaching class introduced herself to me and offered her assistance "Welcome to [RES]. Now you know where to find me if you need anything. I will be more than willing to help." Next were the first-grade classrooms, where student work was displayed on the walls. The principal introduced two teachers who were taking their students to specials. At the end of the hallway and under the stairwell was an indoor garden that the principal explained had been planted a few years before by the then-fifth-grade class and maintained by current students. On the second level of the building were the fifth, fourth, and third grade classrooms and the science lab.

Upon completion of the guided tour with the principal, the researcher repeated it alone to get an understanding of how the hallways were connected and to become familiar with the layout of the school and grounds. The researcher walked the first floor again, not yet sure where each hallway would lead but acutely aware of how quiet the place was. Classroom doors were kept open; nevertheless, any noise coming from inside the rooms was minimal, broken only by the occasional teacher voice giving instructions on one activity or another. The atmosphere was orderly and focused. A few classes were traveling to or from specials; students gawked at me, a

stranger. Teachers nodded and/or verbalized "hello." Some children waved timidly. At the end of one hallway a student pair was coming from the girls' restroom; one girl asked who the researcher was, and the researcher introduced herself. They smiled at the researcher, then at each other, and scurried off to class.

Teacher affiliation – Teacher and staff interactions

The following day the researcher arrived early to view the interactions outside school hours. Participants arrived and left their vehicles. A few stopped to have a brief conversation before proceeding into the building. The researcher was scheduled to observe a team meeting and went directly there. Three of the four teachers on the team were present and greeted and welcomed the researcher, introducing themselves: Margaret, Jill, and Lauren. They began the meeting by reviewing the recently administered DIBELS assessment and analyzing its results. Jill (non-NBCT) seemed to be the leader of the group. She did most of the talking and decision making. The fourth teacher, Marge, arrived ten minutes into the meeting, apologized for her tardiness, and joined in the conversation. The four continued their analysis of the data for 15 minutes then exchanged lists of student groups before ending the meeting. The researcher spent the rest of the morning conducting scheduled interviews. Much like the previous day, groups went to and from specials with quiet hallways and orderly classrooms. One paraprofessional escorted an emotional support student to a general education classroom for mainstreaming.

At 12:30 p.m., the researcher entered one of the two faculty lounges, a large kitchen-like room containing a washer, a dryer, two sinks, a snack machine, a soda machine, two refrigerators, a small table with four chairs, a sofa, cabinets and countertops, a microwave, a toaster oven, a toaster, and a range. Three paraprofessionals, Sue, Diane, and Kate, entered. Diane heated her food in the microwave, while Sue washed her hands at the sink. The three

settled down to eat and engaged in a conversation about the death of a friend and church and community member. Kate asked if Sue and Diane were going to the funeral service. Diane said that she would attend. Sue wasn't sure. The conversation focused on this topic while they were in the room. After 20 minutes, the three women cleaned up the table and left the room. The researcher spent the rest of the day conducting interviews.

In the days that followed the researcher arrived an hour before school time and stayed one or two hours after dismissal to observe the interactions among the participants. As the study participants arrived each morning, they would unload their vehicles and enter the building. On one occasion, Anita and Elizabeth met at the bottom of the ramp and held a brief conversation before entering the building. On another morning, Chris and Lora entered together, this time not stopping to chat before entering the building but rather talking as they walked in. Other teachers and staff arrived and entered alone. Participants entered the office, exchanged greetings with the secretaries and other persons present, signed in, retrieved their mail and exited. Some could be seen on occasion briefly conversing in the foyer.

The researcher spent most of each day interviewing participants, conducting focus groups, and observing team meetings, all of which focused on data analysis and followed identical agendas. As noted above, there was very little activity outside the classrooms. When teachers were escorting classes to specials, they exchanged pleasantries before proceeding. On subsequent visits to faculty room number one, it was empty. The researcher took advantage of this opportunity to transcribe notes and/or fill in field notes while watching for possible visitors. After a few days in the empty lounge, the researcher visited the second room. It was not designated a staff break room, but the researcher was told that some faculty might gather there.

This room was much smaller. It contained a refrigerator, a microwave, a small table and four chairs, and a small sofa. This room was also empty.

Later visits to this room and the first during the period of this study revealed that teachers rarely used them for anything other than to heat meals. Sue and Lora added that the space behind the library was a more popular lunch destination for faculty and staff. “But teachers prefer to eat in their rooms so that they can get work done at the same time,” Sue said. The researcher observed that teachers spent their lunch period eating in their rooms, with the exception of several of the paraprofessionals who ate together in their “planning room” and teachers Shanin and Iris who took their lunch in Iris’s room.

On the fourth day of the study Iris invited the researcher to visit during their lunch period. As they ate, their conversation was about upcoming budget cuts and the prospect of losing some teachers. Shanin was concerned about their first-year teachers; Iris talked about teachers who might retire as a result of the cuts in order to save some newer teacher positions. About twenty minutes into the exchange the subject turned to one of Iris’s students whom Shanin had been helping during SOS (remediation) time. The two talked about the changes they were seeing in her and decided that she would no longer be needing remediation on fluency but would now join the group focusing on comprehension. This subject lasted for about five minutes before the teachers packed up their lunch bags and went to collect their classes from the cafeteria.

The perception that teachers at RES bond as a faculty and support each other was both implied and stated by many respondents. The researcher was unable to witness much of this over the course of the three-week observation, not seeing many spontaneous interactions among teachers and/or staff members. On the contrary, the study participants primarily tended to remain

isolated and their interactions were brief and infrequent. It was difficult to confirm the sense of respondents of a "familial" or "collaborative" atmosphere at RES.

History of National Board Certified at RES

Much of the "Great Recession" of the mid-2000's bypassed Marioville. In comparison to the gloomy economic circumstances in other districts, it appeared relatively untouched and maintained its resources. As an example, four years before this study, the school district had enough resources to negotiate with the local teachers' union to recognize and reward National Board certification in the professional contract. Administration, recognizing the potential benefits of National Board certification supported by research as an excellent form of PD, agreed to its inclusion. Administration recounted how this materialized:

> There was a new member of our teaching staff in the district who was National Board certified and desired recognition for her achievements. She approached the union about the issue. The union president subsequently discussed it with the [then] superintendent and an agreement was made to bring it to the [school] board. The board passed it without discord.

Subsequently, the school district boasted sixteen teacher candidates in 2009, nine achieving certification on their first attempt. Nationally, first-time candidates usually achieve a 40% pass rate; the district cohort exceeded that national average with a 56% pass rate. Three teachers had received certification status prior to 2009, and another six in 2010. In 2009, the cohort consisted of a large sub-group of teachers from RES; a total of twelve teachers from this sub-group, more than a third of the teachers at RES, went through the process of National Board certification. At the time of this study, two NBCTs had transferred to another school within the district, one had retired, and another had not succeeded on her first try and was contemplating a

re-take. Eight National Board-certified teachers (approximately 25% of all teachers at RES) remained at the school during the period of data collection for this study. Two of these taught kindergarten; two, first grade; while one taught each of second through fifth grades.

With this preponderance of NBCTs in one school, it would be expected that the professional climate of RES would be reflective of NBPTS' proposed tenets. The following section explores this by providing a window into the climate at RES through the lens of the participants.

NBCT Teacher and Administrator Perceptions of the Professional Climate of Royal Elementary

Follow-up interviews with the NBCTs and administrators brought further insights about the climate at Royal in relation to the NBPTS tenets and the OHI-E themes.

NBCTs definition of climate is consistent with the literature. Organizational climate is considered a measurement of an individual's relationship with superiors and other employees in the work environment. This is similar to the beliefs of Hoy et al. (1991) that the internal characteristics of a school distinguishes it from others. The NBCTs were consistent in their belief that Royal had positive, familial climate. As Margaret explained, "Everyone getting along, being friendly to each other, and showing respect." Analysis of similar interview data revealed consistent themes of respect, friendliness, and communication. Responding to interview question number four, *what components would be beneficial to school climate*? Dana responded, "Friendliness and respect, in my opinion, makes climate positive." Casey had a similar response to the question. "I think that a positive climate depends on staff members getting along with each other and just really being respectful of each other." Anita thought that climate is "about the way

people talk, interact and treat each other and is displayed in the way everyone feels about the situation they are in."

Responses to the questions specific to the climate at RES varied between interviewees as indicated, however, due in large part to impending budget cuts. The year during which this study was conducted was the first in which Marioville had begun experiencing the economic impact of the recession. Teachers indicated that enthusiasm at RES had been dampened by budget cuts proposed by the district due to substantially reduced local and state funding. Teachers were facing possible furloughs, which the district hoped to avoid by covering attrition with intra-district movement. Adrienne shared her feelings of uncertainty and disappointment at the prospect of having to move to another building:

> My daughter goes to school here, I went to school here. We love it here. I was told last week that I might be moved to another building. After eight years here, that hurts. Especially when they aren't sure they are actually moving me, or where I am going. Everything and everyone is uncertain. This is not a good feeling.

Anita expanded upon her definition of climate, describing the climate at RES:

> My sense is that morale is down. This year there is a lot of fear and anguish. Teachers are worried about losing their jobs. Some are just now finding out about being moved to other buildings. Some have been in this school for their entire careers and now are uncertain about next year. New teachers are unsure if they will have a job next year. I know it is everywhere, but it sure is leaving a bad taste in people's mouths.

These initial interview questions produced responses about what it felt like to a part of the faculty and staff at RES. However, there was also a need to get a clearer picture of the effects of having such a large percentage of NBCTs in one school. Therefore, it was necessary to probe

further into this question of climate at RES as perceived by the NBCTs. Casey acknowledged that she is National Board certified as an Early Childhood generalist and "spent that [certification] year in Pre-K doing things differently" as a result. However, at the end of the year she was moved to a higher grade and did not believe that she could apply the learning she believed to be specific to early childhood. "I am the only one in the building with early childhood [certification], "she said solemnly, "and I'm not in early childhood anymore. I have no answer for that." When asked about working with other NBCTs, she was thoughtful for a moment, then replied,

> Our biggest challenge is time. The day is such that we are always going and going. I don't even get to see the other [same grade] teachers. I have emotional support students in my room now. When I get my kids off to another area, I am usually meeting with their aides or teachers, letting them know what happened with those kids. I used to have a movable wall in my old room, and I would open it and eat lunch with the other teacher or chat during prep time while trying to get things done. Now I have four walls, so some days I don't see anyone. Yeah, you'll notice that in the building. In the rooms where teachers have a movable wall, it's much more conducive to colleague function. I am here by myself. The other class on my grade is at the end of the hall, while the room across from me is a [different] grade [level].

When probed more on the topic, Casey explained that the relationships in the building are more personal because many live in the same community and their children go to the same schools and participate on the same sports teams. She stressed that there is not enough time for meeting during school hours. The theme of time is explored later in this chapter.

Dana shared similar sentiments about time constraints and leadership functions. She admitted that her own instructional practices had changed since certification, "Science and math have become one, and social studies and art have jelled," she said. However, when asked about sharing these practices with colleagues, she confessed that of the three teachers in her grade, two of them were certified in different areas, and the third was non-certified. She believed the daily schedule was so "tight" that it was difficult for them to interact much with each other. "In-service time is very much directed," she said. "We need more time for sharing." Adrienne stated that besides sitting on the math committee to align curriculum and common core across the district (along with non-certified teachers), NBCTs did not "lead the charge in the area of leadership or collaboration." She said, "We [NBCTs] are trying to influence others to go for certification, but that's it." She pensively admitted that they needed to work on collaborating more. Anita reported that team meetings held once every six days were used for analyzing data, planning trips, and setting up other activities. She expressed a desire to have them focus a bit more on actual instruction; however, she recognized that "there is a lot to cover in very little time."

During interviews, NBCTs admitted that they practiced higher-level instructional techniques before certification. Jill said, "I know that we were supposed to go through a sort of transformation as a result of certification, but to be honest I haven't changed much of what I have always done." When probed further, she agreed that she had become a more reflective practitioner. This realization was a recurring theme among NBCTs, as evidenced in Anita's admission, "It's opened my eyes to many ideas. I self-reflect a lot. I've always done that, but it's just made me more conscious."

Two of the Core Propositions of the NBPTS are represented here: Proposition 4: "Teachers Think Systematically about Their Practice and Learn from Experience." Tenet three of this proposition states that NBCTs regularly reflect on their practices, increase their range of knowledge, and make appropriates changes reflective of these new learnings. Interviewee responses were consistent with this premise, as the NBCTs interviewed stressed their reflective practices and improved instructional techniques as a result of certification, as noted above. The individual experience and subsequent change in NBCTs has had a positive impact on the school as it relates to students' learning in each NBCT's classroom. On the other hand, individual growth is contrary to Proposition 5, which states that "teachers are members of learning communities" (NBPTS, 2012). Neither administrators nor any of the teachers said that the knowledge and skills of NBCTs were having a positive influence on the entire building. On the contrary, NBCTs were not utilized as leaders. These reports are consistent with from the researcher's observations. Teachers were working very much in isolation. With the exception of mandated team meetings every six days, there was little evidence of collaboration. Occasionally, teachers were seen having lunch with a partner or in triads; conversation was light, usually concerning family or community activities. This conflicts with the philosophy espoused by NBPTS, specifically Proposition 5. As stated previously, this proposition mandates that teachers are members of learning communities who, upon receiving certification, enhance these communities as they:

- Collaborate with others to improve student learning (NBPTS, 2007).
- Work with other professionals on instructional policy, curriculum development, and staff development (NBPTS, 2007).

Teachers at RES revealed that professional development was coordinated and conducted by the principal or central office personnel. Their personal participation in leadership roles did not differ significantly from leadership roles assumed by non-board certified teachers. Margaret served on the Math Committee and Erin was a member of the Literacy Committee. These committees work on writing, and making adjustments to curricula for the school district. Members of these committees include non-NBCTs, administration, as well as NBCTs.

Indicators of Climate

Emerging themes from this data analysis were reminiscent of three of the Hoy and Tater (1992) categories: Collegial Leadership, Teacher Affiliation, and Resources. However, another category, Teacher Efficacy and Leadership, also emerged from the data. These are discussed below.

Principal Influence

As discussed in the analysis of the instrumentation, collegial leadership indicates whether the principal is approachable, reassuring and fair and sets clear, high expectations (Hoy et al., 1991). A principal's influence with superiors and directness contribute to the climate of the school (Hoy & Tarter, 2008). Interview data indicate that teachers who were Board certified had a more positive perception of collegial leadership than teachers who were not. Themes of principal impact, support, and communication emerging from the qualitative data are analyzed as they factor into collegial leadership. Consistent with the Hoy and Tarter (2008) report that teachers will be committed to an organization when led by administrators who provide structure, resources, consideration, useful influence, and professional support in an even-handed, non-controlling manner, all of the NBCTs interviewed reported a positive view of the principal. They indicated that the principal had clear expectations that were focused on the school's mission and

their perception was that she treated everyone fairly. The principal described her role as planner, manager, evaluator, problem solver, and facilitator. The principal stated:

> As the principal, I am the leader and organizer. I have to be the planner, look at the big picture. I have to ask myself, 'What can I do to make sure this building is running efficiently?' That involves everyone on staff, every student, and every parent, and then there is central office. I have to oversee instructional practices to make sure the learning needs of the students are being met. I have to organize programs, make sure they work. I have to be a facilitator, a problem solver, resolving problems as they arise. I have to be an instructor; I have to make sure my teachers are getting professional development to support their instructional practices.

The principal believed that her influence fostered shared goals, values, and professional growth. She trusted that she created conditions in which teachers could achieve their goals by directing their efforts toward the success of the school. The teachers had similar perceptions of the principal. In interviews with teachers and staff, it was evident that they believed that the principal had an active role in planning, managing, facilitating, evaluating, and leading her staff. As Mary, an NBCT, noted:

> [The principal] does a good job of making sure things run smoothly around here. She is very involved with instruction and professional development. As a matter of fact, she leads our in-services. She organizes programs and sees to it that they are implemented as effortlessly as possible. For instance, a couple of years ago we started a new reading program. That was a big change for us, but she trained us, and she would come in [to class] during the lesson to see how it was going. She was always asking how things were, and if we had a problem, she tried to resolve it quickly. She has to deal with

personnel issues and budgeting, and I know that's tough, especially now with all of the cutbacks. Somehow, she does it, and she never seems overwhelmed. She is very calm. If some new initiative or mandate comes about, she discusses it at staff meetings and explains how it will work. She tries to make us comfortable with changes.

Both teachers and principal see the principal as very instruction-focused, with a primary goal to continue to achieve and sustain levels of student achievement and make Annual Yearly Progress (AYP). As a means of influencing this achievement process, the teachers agreed that the principal influenced teachers' work experience in several ways, among them, the provision of learning opportunities (in-services), and the extent of feedback given to teachers (Barth, 2006).

A major component in principal leadership is the ability to effectively, appropriately, and consistently communicate with faculty and staff. Despite the high score in collegial leadership, many teachers, both NBCT and non-NBCTs, and staff expressed concern about a lack of communication between administration and staff as it related to building decisions. In the area of communication, there was a significant difference in perception between teachers and principal. The principal at RES reported a distinct focus on communication with teachers. She shared discussing test data. To illustrate, taking an opportunity to communicate test data to improve instruction, the principal said:

> At meetings in the beginning of the year, I share information about how we performed the previous year. I discuss the goals for the upcoming year. Our monthly newsletter home to parents conveys our mission and lets parents see what's happening in the school. I communicate high expectations for our students throughout the year and encourage my staff to be problem-solvers.

The teachers and staff agree that the principal communicates the importance of problem-solving. “Well, one thing she does is school-wide emails. So that no one considers it a personal attack, no one teacher or staff member is called out. That way it gives us each an opportunity to adjust without embarrassment.” Despite the agreement about this aspect of principal leadership, teachers have an overall negative view of communication from the principal. Focus group members suggested that there were times when they felt “left out because the principal has failed to communicate something or has communicated it to one or two teachers, and they are left to receive the information second-hand and sometimes inaccurately.” In response to question eight for NBCTs and its parallel question five for non-NBCTs, “*Describe the biggest challenge facing your school, and how you see impacting the school’s climate,*” lack of communication was also the most frequent response.

The leadership of the principal is clearly not the only factor that influences school climate, but it is important. Not only does a principal’s leadership in terms of setting the tone and communicating have a direct effect on the climate of the school, so also does administrative support. Teachers receiving administrative support are likely to be committed to the school’s goals and values and have a higher sense of morale (Coelli, 2012). Also associated with school climate is the teachers’ ability to have classroom autonomy. Teachers at RES believe one reason they enjoy a positive climate is the support of the principal and of each other. Jess enthusiastically recounts, “I think she supports us in anything. I went to her and asked to do something different in my science lessons. She was like, ‘That’s great. Go for it!’ She is always willing for us to come up with new ideas; try new things.” NBCTs corroborated the sentiments of Adrienne, who responded to the question, *how did the principal support you during the certification process*?

She made sure that any supports provided by the district got to us quickly. She offered to help with videotaping; sometimes when we stayed at school late to work on our writing or planning she was often there offering us her assistance and many other small gestures just to show her support. I mean, besides actually doing it with/for us I don't know what else she could have done. We even got release time during the school day to work on stuff. Of course, that was approved by the district, but this was something that she was invested in, and she wanted us to succeed, so she did support us.

Asked if they believe the principal has remained supportive of them, the consensus was affirmative. Climate at RES was perceived by NBCTs as positive, partly because it was characterized by high levels of administrative support during their rigorous certification process. Administrators cannot, however, improve student growth or achievement on their own. They do so by providing effective leadership and support to create a positive learning environment that is conducive to effective, learning, and achievement (Coelli, 2012; Cohen et al., 2009). However, the principal has the job of creating a positive climate. The effective principal in such school environments visibly interacts with all aspects the daily operations of a school, is enthusiastic, consistently communicates with stakeholders and encourages teacher relationships.

Teacher Individuality

Themes of self-efficacy, support, and size emerged from the qualitative data and are analyzed in this section. Teachers' sense of self-efficacy affect the effort they put into their teaching. A strong sense of efficacy is often displayed in the heightened quality of planning (Hoy & Woolfolk, 1993). They are open to new and innovative ways to meet the needs of their students (Kwakman, 2003). These are also the supposed characteristics of NBCTs (NBPTS, 2007).

School climate can either erode or enhance teachers' belief in their efficacy. Feedback also enhances the feeling of support that teachers' have (Stronge, Richard, & Catano, 2008). Teachers in numerous studies report that they would like more feedback on their performance from administrators and colleagues. Where there is no feedback, teachers experience a lower sense of efficacy which affects their instructional choices. Teacher efficacy is also significantly related to their perceptions of being a part of a professional community (Tarnoczi, 2006).

Teachers described RES as a professional learning community; they feel confident that their colleagues are effective practitioners. However, they confessed that there are not enough opportunities for vicarious experiences such as observing their colleagues and sharing best practice. Iris and Shanin said that they tried to spend time during lunch sharing instructional practices but "there always seems to be something pressing us away from the topic such as new data and/or the need to reevaluate a specific student's needs based on data."

Responding to the question, *has your student learning been impacted by your certification?* Iris explained that she has made a more concerted effort to analyze student data. She recognized that certification has caused her to focus more on the "why" of her lesson planning. She said that she always asked herself why she was including or excluding each component of her lessons and the response stemmed from the data that she had analyzed for each student to focus on his or her individual needs. This was the general response by NBCTs. All acknowledge that certification has made them more reflective practitioners.

As evidence of their statements, many NBCTs described specific examples of increased self-efficacy. For example, Adrienne offered:

> I feel like I am more aware of my students' needs because I am more reflective on their strengths and weaknesses. I also feel I am more aware of their learning styles, thereby

more aware of individual needs. I have become much more reflective and focused on individual student needs.

In summary, teachers at RES generally feel a strong sense of self-efficacy. NBCTs in particular consistently refer to the increase of reflective practice, which in turn leads to enhanced instructional practice.

Another component of teacher affiliation that both lends itself to, and grows from self-efficacy is peer support. The questions generating the theme of support concerned teachers' perception of camaraderie and collaboration. All groups agree that many friendships exist and camaraderie is at a high level at RES. Teachers who lived in the community discussed sharing personal time together since many of their children went to school and participated in sports together. One NBCT participant, Tracy, shared that "some teachers who might stay after school hours to work on planning and other work-related responsibilities and activities" also used this opportunity to "catch up with each other." However, this was more prevalent among those living in the community since, as Tracy, explains, members living outside the community tend to "leave soon after dismissal, mostly in attempts to get past rush-hour traffic and to attend to their own childcare and family needs."

Support for each other, or peer support, and collaboration are other components of teacher affiliation and, thus, key elements in developing, and evidence of, a positive climate (Singh & Billingsley, 1998). Teachers admitted that there was a bonding that occurred between the NBCTs as they went through the rigorous certification process. Jill felt they had the support of other teachers: "They were our cheerleaders. Even though they couldn't help, they wanted us to succeed." In response to prompting about whether this support has continued since certification, teachers discussed having a general feeling of being supported but the enthusiasm

and explicit encouragement had diminished along with occasions for collaboration. Collaboration can help teachers experience the rewards of teaching. Interaction with colleagues can provide a sense of professionalism to help overcome a sense of isolation and build a feeling of cohesion. Teachers at RES, however, admitted that there were not enough opportunities for collaboration. Grateful for the opportunity to meet with her grade team once every six days to plan, analyze data, and discuss student growth and needs, Anita confided that this really was not enough time. "It goes by so quickly," she lamented. "We rush to cover as much as possible, and none of it is about sharing instructional practices. I wish we could share that sometimes." Referencing the team meetings, Adrienne stated that the agenda was predetermined by the principal. "It usually is about analyzing student data, but if there is something else she thinks we need to discuss, then we talk about that." The principal was usually present at team meetings. "I am there so that we are all on the same page, and so that I have a grasp of what is going on with students." To avoid being intrusive, the principal explained that she did not attend any team meetings during the researcher's observation.

NBCTs recall going through the process with each other as a support system, while others supported by cheering them on. Erin acknowledged that having several of them going through it together was very supportive and rewarding. "The teachers who did not want to get their certification were happy to be members of a progressive district," Iris stated. The principal agreed that everyone was proud of the NBCTs: "It served as a point of pride." NBCTs had a slightly more positive perception of collaboration than other interviewees. The consensus of NBCTs was that the certification process necessitated a strong collaborative effort. They met frequently to share ideas, provide feedback, or simply support each other. These teachers reported not continuing this practice to such a great degree as it relates to daily instructional

practice. The principal agreed that there was great collaboration between these teachers as they went through the certification process and that she would have liked to see it continue at the same high level beyond certification. She confided that such collaboration was nearly non-existent beyond in-services and team meetings. When asked about providing collaborative opportunities, she disclosed her implicit expectation for NBCTs to take more of an initiative to create opportunities or suggestions for collaborative experiences.

In response to the question of serving as mentors, NBCTs indicated that they did not serve as mentors, with the exception of Jill who mentored new assessment candidates, a self-assumed responsibility. Interviewees agreed that non certified teachers infrequently sought instructional advice from them and that they occasionally consulted with each other. However, they did not serve in a mentoring capacity officially, and, as Erin stated, "Not in a non-official way either. I think they respect us and our accomplishments, but I wouldn't say we mentor them. We just all seek each other for advice if we need to."

Nearly all the NBC teachers interviewed obtained their National Board certification while working at the school. Many of them discussed the climate of support and encouragement at the school and district level as being a key factor in their decision to pursue the certification. Typical comments from NBCTs included, "I did mine because of the support in the school and district. There were already so many teachers who were certified and could support me that it gave me the initiative to tackle the task." Dana added, "The district was very supportive and encouraging." Jess said, "The administrators made a big to-do about it….They really think it's a special thing to do and it's good for the school district, so it's highly encouraged." The most comment from the NBCTs was "the district offered a huge incentive." All of the teachers earned

National Board certification while at RES, and colleague support was frequently mentioned as a factor in their decision to pursue certification as well as part of a daily habit.

Another characteristic evident in schools with a positive climate and advocated by NBPTS is teachers as leaders. Teachers who are included in decision-making processes have strong psychological ties to their schools and their students. These teachers feel committed when they experience responsibility for the outcome of their work. If the results are accomplished by what the supervisor does, the teachers have no sense of success**.** Firestone and Pernnell (1993) found that teacher participation in decision-making could have considerable benefits.

Responses from interviewees in this study indicate that most NBCTs do not serve in leadership roles. Rather, their expertise is not sought more than that of non-NBCTs. Asked if she felt that her certification and associated knowledge was used in any leadership capacity, Casey admitted that when she was in the primary grade she worked on setting up the curriculum, but acknowledged that in her new position (grade) she was not similarly used. Interviewees said that a few teachers were members of curriculum committees. These members were selected by the principal, and represented a cross section of NBCTs and non-NBCTs, but the committees were temporary, based on the immediate need to revise the curriculum in preparation for the implementation of Common Core standards.

When questioned about responsibilities and leadership roles in the building, teachers acknowledged that their responsibilities had not changed and that there were no leadership roles assumed by, or delegated to, NBCTs. Leadership activities including professional development were assumed and facilitated by the principal. Follow-up interview question six asks, *Can you describe any new initiatives, programs, or activities developed by NBCTs?* The principal shared that one NBCT had started a Community Food and Fun Day for her grade, during which

community members gave presentations of their food products and shared information about their businesses and careers.

Throughout the interviews, teachers described National Board certified teachers as highly motivated, self-directed achievers and naturally skilled leaders. However, no responses to interview questions indicate leadership roles. The majority of the staff interviewed believed that there was no connection between National Board certification itself and NBCTs as leaders in the building; however, they stated that the certification process may have enhanced traits that are evidence of leadership skills, such as reflecting on their own instructional decisions becoming more deliberate and purposeful.

In response to the question of serving as mentors or coaches, NBCTs indicated that they did not serve as mentors, with the exception of Jill who mentored new candidates, a self-assumed responsibility. Interviewees agreed that non certified teachers did seek instructional advice from them and that they consulted with others. However, they did not serve in a mentoring capacity officially and, as Erin stated, "not in a non-official way either. I think they respect us and our accomplishments but I wouldn't say we mentor them. We just all seek each other for advice."

In response to follow-up interview question five, responses were consistent. As previously reported, NBCTs did not serve in any supportive role: mentor, team leader, coach, or professional development facilitator. Many non-NBCTs, including Elizabeth, stated that they occasionally sought advice from other teachers, both NBCTs and non-NBCTs. Participants' views can be summarized as non-NBCTs having respect for the NBCTs but also holding many other teachers in high regard. They also acknowledged seeking advice from NBCTs before certification with no significant sharing afterwards. Mentoring and coaching are forms of teacher leadership that impact school climate but were not evident at RES.

External Resources/Support

Boyd and Reese (2006) argue that teachers who are provided with the necessary resources and protected from intrusions are more likely to be committed to their schools' goals and values and contribute to a positive school climate. The questions from this dimension mostly concerned teachers' perception of NBCTs as a resource to each other and to non-NBCTs. Again, this is a variation on Hoy's definition of resource influence. However, because NBCTs possess a high degree of knowledge and skills that can be tapped into by their peers and leveraged by their principals and other administrators, it was worthy of examining them as an available resource.

Although most interview participants regarded NBCTs as a resource within the building, when asked of each group, *what impact do NBCTs have on other teachers?* replies included phrases such as "wealth of knowledge," someone to "bounce ideas off of…," and "planning leaders." When pressed for specific examples teachers, staff, and administrators admitted that NBCTs did not assume informal or formal leadership roles except for Jill, who was the "go-to person for others interested in certification." Nor were they mentors for other teachers. Elizabeth said, "They are asked to sit on math and reading district committees, just as non-NBCTs." Jess said, "As far as retaining teachers, I think having National Board-certified teachers builds a culture that makes people more likely to want to stay. I think it also makes the parents happy." "They were happy when the papers came out, and it said all the names of the National Board-certified teachers," Adrienne added.

> I think it says something about the climate of the school. I think it says that there are a lot of people who are willing to go the extra yard and make a difference and that they're progressive. But it wouldn't keep me here….I wouldn't stay only because my neighbors are National Board certified.

Time is defined as teachers' time spent on school-related activities and identified as a resource for the sake of categorizing data in this study. The school day ends officially at 3:30 p.m. for teachers; however, teachers and staff have the option of leaving at 3:00 p.m., dismissal time for students. The principal said that approximately 30% of the staff would remain, on average, an hour after school to work on school-related issues such as lesson planning and preparation. The researcher verified this during the observation period, noting that most teachers left daily at 3:00 p.m., with a few remaining. On four occasions, Lora, Nicole, and Jamie were seen gathered in one of the third- grade classrooms for approximately an hour after school. Jill spent six of the study days after school, and Lauren was observed every day after school hours. The principal also stated that approximately 80% of the staff arrived by 7:45 a.m. Again this was verified through direct observation. Over the three-week observation period, teachers arrived between 7:30 and 8:00 with the majority closer to 8:00 a.m.

Throughout the interviews teachers referred to time constraints as a significant limiting factor. To Jill, there just wasn't enough time to "do everything that is expected and collaborate with others." Judy continued to describe the limitations presented by a lack of time:

> We always talk about desiring to get together with each other to really discuss what's happening in each other's classroom, to really learn from each other, but the day is too short, and we can't get it all in.

Lauren confessed that even though she stays almost every day after school, she really focuses on preparing for the next day and calling parents if there is the need. She expressed the desire to collaborate more with other teachers but admitted that it was minimal due to lack of time.

When questioned about time allotted for teachers' collaboration, the principal acknowledged in-services and team meetings. As previously stated, she also expressed the desire for NBCTs to play a more active role in the initiation and development of activities, programs, and activities at RES. Researchers have suggested that students benefit from being part of comparatively small organizations and have determined that the optimal size for elementary schools is about 250 to 300 students (Cotton, 1996). The issue of size appears to play a significant role in influencing the climate at RES.

Throughout the interviews, respondents continually referred to the size of the school, the small number of classes per grade, and the small population of students. In regard to school size as a factor influencing the effect of National Board certification on the climate at RES, Nicole drew upon personal experience as she described why NBCTs might not have a huge impact:

> In my grade there are only two of us. One is National Board certified, and the other isn't. We meet with the principal for team meetings, and occasionally we would share an idea or so, but there is no designated team leader, since there are only two of us. To be honest, I pretty much stay in my room and do what I need to do for my students. There are no more than three teachers in some grades, and I just don't think that we are big enough to designate team leaders or anything like that. As for whether people assume leadership roles, I know I personally wouldn't do that. I think we can just all work together. The principal is the leader, so she does all that leadership stuff like in-services, professional development, and making the big decisions. It's enough just trying to fit in all we have to do in a day without adding more responsibility on top of it all.

In summary, Nicole believed that RES's size renders formal teacher leadership unnecessary. She agreed that the size of RES contributed to a congenial atmosphere in which

staff and faculty members were friendly and respectful to each other, producing high scores in the area of teacher affiliation, but there was no need for formal hierarchical roles.

The areas of collegial leadership and teacher affiliation encapsulate the interpersonal relationship among the teachers and between the teachers and administration. These are areas that can potentially by be influenced by National Board-certified teachers as they utilize acquired skills and strategies to create and facilitate a professional learning community. Another area that could conceivable be influenced by NBCTs is academic emphasis. However, it is noteworthy that academic emphasis, as perceived by Hoy (1990), focuses on how students and parents view a school, rather than the teachers' focus.

Another resource that was lacking as evidenced by data was parental support. Participants in all groups, in response to interview questions, acknowledged very few significant changes in academic emphasis as a result of NBPTS certification. The belief was that there had always been a strong focus on academics by teachers and administration. However, as previously stated, the groups agreed that there was a lack of parental support in getting homework completed and returned, attendance was becoming an issue, and increasingly it appeared that students were taking less interest in their grades. This data is supported by the eight percent decline in math and six percent scores in reading standardized tests from 2011 to 2012, illustrated in Table 2.

Teachers reported that students' uncooperative nature and inattentiveness during classroom instruction was also being reflected in falling grades and test scores. The teachers did not believe that their students would continue to achieve the goals that have been set for them, nor was there a sense in the building that the efforts needed to achieve high standards were demanded.

Chapter Summary

This study sought to explore the insights of administrators, staff, and teachers about the effects on National Board certification on the climate of a school. The research questions that framed this study were explored through a qualitative case study analysis. Methodology consisted of four data sources

1. The Organizational Health Inventory survey administered to the entire faculty, administrators, and staff of RES.
2. Interviews of NBCTs, non-NBCTs, and the administration at RES.
3. Observations of the natural setting of RES.
4. Focus groups conducted with non-teaching staff at RES.

Using the framework of the five subtests of the OHI-E--Collegial Leadership, Institutional Integrity, Teacher Affiliation, Academic Emphasis, and Resource Influence--as the base of analysis, data was gathered and analyzed through interview questions and observations. The results of the data analyses used to answer the research questions were presented in this chapter.

The interviews, focus groups, and observations confirmed findings from the survey in the areas of teacher affiliation, collegial leadership, and resource influence. The scores in these areas are indicative of a healthy, congenial climate. The areas of Institutional Integrity and Academic Emphasis also appeared to be congruent with the statements made by participants. On the lowest scores in the study, Institutional Integrity and Academic Emphasis, participants reported what appeared to be an unhealthy relationship with their academic and external environments. The qualitative data expanded upon recognized themes identified in each subtest.

Data from the study indicates that National Board certification impacts the climate of RES through the influence of the principal in the areas of leadership, support and communication; teacher individuality relating to their sense of efficacy, support and leadership; and external resources/support in terms of size, time, and resource influence. In response to the research questions, the results indicate some positive and some negative perceptions of the effects of National Board certification on school climate by the teachers (Research Question 1), the administrators (Research Question 2), and the staff (Research Question 3). The overall health index indicates positive perceptions of the effects of National Board certification on the climate of RES. Chapter V provides a discussion of findings, implications for climate and practice, conclusions, and implications for practice and further research.

CHAPTER V

DISCUSSION OF FINDINGS, CONCLUSIONS, IMPLICATIONS, AND RECOMMENDATIONS

Chapter V begins with an overview of the purpose and major objectives guiding the research activities of this study. The major findings and conclusions are presented, followed by a discussion of their implications, and the chapter concludes with recommendations for future research.

Introduction

Elbot and Fulton (2008) noted that school climate has a great influence on a student's chance for success. National Board certification has been advocated to improve the professionalization of teachers (NBPTS, 1989). Enhanced professionalism, displayed in teachers' skills, knowledge, and classroom practices, leads to better student learning (DeMonte, 2013). Is this also a means to improve the professional teaching climate of a school? Along with school climate discourse, the recent push for NBC has made it an important aspect of educational dialogue. A review of the literature, however, shows a paucity of research addressing the relationship between school climate and National Board certification as it relates to the adult population in schools, specifically the impact that National Board certification has on the climate of the school. This study is the result of a need to conduct research that examines this construct, and it adds to the discussion of the relationship between National Board certification and school climate. Identifying and studying the perceptions surrounding school climate, a factor that contributes to student learning, and National Board certification was the topic of this research study.

Theoretically, if students feel a connection to their learning environment, they will achieve academically. Likewise, if educators feel supported and encouraged and that the work they do is significant and relevant, they will be productive teachers. If these two tenets are true, positive school climate should be favorable to effective instruction and positive student outcomes. Consequently, it is essential to recognize elements conducive to a positive climate. The principle on which this study is built is that National Board certification can be one such factor. NBPTS (2012) argues that certified teachers are committed to their students and learning (Proposition One), think systematically about their practice and learn from experience (Proposition Four), and are members of learning communities (Proposition Five). Reliance on the marriage of these premises to a school in which there is a significant number of NBCTs forms the framework for this study in relation to Hoy's categories of school climate.

A qualitative case study was framed to examine the relationship between the two constructs, based on perceptions of administrators, teachers, and staff.

This study was guided by the following research questions:

1. How do teachers perceive the effects of National Board certification on school climate/organizational health?
2. How does staff perceive the effects of National Board certification on school climate/organizational health?
3. How do administrators perceive the effects of National Board certification on school climate/organizational health?

The construct of organizational health, as defined and operationalized by the OHI-E (Hoy, Tarter, & Kottkamp, 1991) included the components of principal leadership and teacher relationships, as well as school environment and thus was a useful conceptual framework for this

research. Overarching themes emerging from the data were Principal Impact, Teacher Individuality, and External Resources/Support.

Discussion of Findings

This study's chief purpose was to examine the effect of National Board certification on school climate. Teachers, staff, and administration's perception of school climate in each of the five areas of organizational health/climate (collegial leadership, institutional integrity, teacher affiliation, resource influence, and academic emphasis) were connected to National Board certification. The major findings related to the research questions are as follows:

1. Based on the data, teachers perceived National Board-certified teachers as having a positive impact on the climate of the school as it relates to congenial relationships but no impact on collegial or collaborative relationships.
2. Based on the data, staff perceived National Board-certified teachers as having a positive impact on climate of the school as it relates to congenial relationships, but no impact of collegial or collaborative relationships.
3. Based on the data, administrators perceived National Board-certified teachers as having no impact on school climate as it relates to congenial, collegial, or collaborative relationships.

Findings were based on the results of the OHI-E, interviews, focus group responses, and observations and were reinforced with research found in the literature addressing school climate and of National Board certification. It is imperative, however, to make distinctions between findings related to congenial relationships and those more indicative of collegial and collaborative interactions. These subtleties will be addressed later in the chapter as themes are presented.

The data indicated that the school under study was an overall average healthy organization. However, some subscales were representative of a healthy school while others showed an unhealthy institution. For example, the Collegial Leadership and Teacher Affiliation subscale scores were characteristic of a healthy school, while the Resource Influence, Academic Emphasis, and Institutional Integrity results were more representative of an unhealthy school. It appeared that at times the following healthy characteristics were seen in the school: (a) the teachers had a sense of accomplishment from their jobs; (b) teachers perceived the principal as fair, friendly, and approachable; (c) teachers like and get along well with each other. In contrast, characteristics such as teachers having adequate supplies, the school being able to withstand narrow, vested interests of the community, and a strong focus on academic achievement seemed to be lacking in the school, indicative of unhealthy areas. The high scores in collegial leadership and teacher affiliation balanced by the low scores in academic emphasis, resource influence, and institutional integrity, resulted in an overall score reflective of a healthy organization. A discussion of the findings as they relate to each subset of the OHI-E follows**.**

In the area of student focus on academic emphasis, data collected from the interviews and focus groups supported the "low" rating from the OHI-E survey instrument. Statements made by the teachers, staff, and the administrator of the school with regard to student performance and attendance and parental support reflected the low score 370. However, statements about teacher expectations of students and the academic focus, coupled with the emphasis on teachers' commitment to students and their learning according to Proposition One of NBPTS's five propositions, was contrary to the low score in this area. These elements were more suggestive of a relatively strong academic emphasis by faculty.

Acknowledgement is made of the discrepancy between academic emphasis as indicated by Proposition One of NBPTS and that on the OHI-E. The components of the subtest, academic emphasis, focus on student behavior (cooperative), performance (completes homework, seeks extra work, and works hard), and attitude (respect others who get good grades). The academic emphasis of Proposition One focuses on teachers' commitment to students and their learning (believe all students can learn, treats students fairly, understand how students learn, etc.). It is with these differences in mind that the researcher sought to frame questions that would bring these two models together to get an overall picture of the academic climate. Teachers had a positive view of NBCTs role in student performance in their classrooms. However, responses linking tangible NBCTs initiatives and activities and widespread effect, together with the low score on the OHI-E, produced generally low scores in this area.

It is also important to note that NBCTs referred to their personal growth (becoming more reflective, adjusting instructional goals and focuses) and the impact of such growth on the students in their classrooms. This growth is reflective of Proposition Four of NBPTS. It is also supported by Boyd and Reese (2006) who determined that practices such as reflection and adjustments of instruction are crucial to realizing the ideas proposed by NBPTS, thus producing pedagogical growth. However, NBCTs, non-NBTs, and other staff concede that this effect does not necessarily spread beyond the walls of individual classrooms. Participants report "occasionally" seeking advice from each other irrespective of certification. This is of great importance because an expectation of NBCTs in Proposition Five, as previously noted, is that individual learning and growth will expand as NBCTs become members of professional learning communities and thus influence colleagues and students. The consensus, nevertheless, as stated by Zaneh, is that "teachers work hard to make good instructional decisions for the students."

The school scored very high (750) in the dimension of teacher affiliation. The statements verifying strong teacher affiliation were made by staff, teachers, and the administrator of the school. Participants reported a sense of dedication to the students and teachers of their school, as is supported by Proposition Four's premise that teachers are able to adjust instructional techniques based on their intimate knowledge of individual students' needs, aptitudes, and strong points. Casey referred to the amount of time the teachers spend during and outside of work hours to show their support for each other. The data corresponds with the premise of Proposition One: Teachers are committed to students and their learning. Respondents also reported having positive feelings about each other and their work, maintaining close relationships, and having a strong sense of pride in their school. It is not necessarily surprising that the school scored high in teacher affiliation. Candidates going through National Board certification work very closely together, helping each other to plan, evaluate lessons, and think about the content of their portfolio entries. These activities encourage the growth of close relationships among participants and among participants and the staff, teachers, and administration who support them.

In the area of collegial leadership, RES also scored above the mean (700). Many statements made by participants were suggestive of the above-average scores in the area of this area. However, statements by some non-NBCTs were contrary to the score and present the question of whether the perception of collegial leadership was based on certification status. Many respondents perceived a lack of communication as a major flaw in collegial leadership. However, participants overwhelmingly viewed the principal as friendly and approachable.

The score in the area of resource influence concurred with the statements made by the participants. The school scored 431 in this dimension. Data collected in this study supports the scores for the school in the area of resource influence; specifically, statements made by the

participants regarding the non-use of NBCTs as a resource. In addition to the ability to procure and distribute resources in a school (Brown, 2002), the principal of a healthy school must be knowledgeable about how to utilize the human capital in his/her building as a resource to achieve objectives set out in the school improvement plan (Shore, 1995).

According to NBPTS' Proposition Five, NBCs should be an integral part of decision-making on instructional policy, curriculum, and staff development. Proposition Four posits that NBCTs exemplify characteristics of refined educators who reflect on their practice daily to expand their repertoire and infuse their instruction with new findings. It stands to reason, based on these principles, that NBCTs would assume leadership roles and be utilized as a valuable educational resource. Statements from the interviewees do not substantiate this premise. The score in the area of resource influence was slightly below average, 431, which aligned with the qualitative findings and produce a lower-than-average score.

RES obtained the lowest score in the area of institutional integrity, 332. Responses to questions concerning institutional integrity were collated with similar responses on the OHI-RE. Participants displayed a somewhat strained relationship with the community and parents. Participants shared that they faced an increasingly changing social environment that produces challenges stemming from factors outside of their control; for example, the changing demographics of the population. Parent involvement is also an issue, as reiterated by the principal. "We're really working on that. We now have skating in the evenings to pull parents in. So that's one of our goals now, to really get more parent involvement because it's something we're lacking at this school." When talking about community support, Erin said, "In this area, it's a little weak. It's a small community, small school; you'd think there'd be more support." Cantrell (2008) summarized one of the ideas of NBPTS' Proposition Five: that NBCTs work to

involve parents productively in the work of the school. To this end, one NBCT reported initiating an activity that invited parents and community members in to introduce students to elements of the community such as farming and food production. The ideal of engaging parents is one of the documented accomplishments submitted as a part of participants' portfolios; therefore they have built knowledge and skills in this area as well. However, the leaders of the organization appear not to have been able to translate the activities engaged in by the NBCTs through the certification process into a benefit to the school.

Implications for Climate

Close analysis of the response data illustrated themes related to each subtest and subsequently exposed an underlying discrepancy in the way climate was viewed as it relates to relationship types. Interview, focus group, survey, and response data showed a disparity between the way teachers, staff, and administration perceived the climate of interpersonal relationships at RES and the professional collegiality experienced as a result of the National Board-certification process. This revelation prompted the researcher to think about the perception of climate in two different ways and to analyze the data both in terms of congenial relationships and collegial and collaborative affiliations.

Collegial Collaboration

Collegial collaboration has become an area of emphasis in education. Teachers should be active participants in professional learning communities. As stated before, Proposition Five of NBPTS proposes that NBCTs are a part of a professional learning community and, as such, work cooperatively, collaboratively, and collegially towards these goals. In 1991, Barth suggested that there is great excitement and enthusiasm surrounding the idea of collaboration and collegiality, even though at the time its actual presence in schools was rare. He contended that even though

the benefits of these practices seem obvious, logical, and compelling, it was actually the least common form of relationships among adults in schools. What school has, he argued, instead of collegiality, is congeniality, which suggests people get along with one another and are friendly, warm, and supportive of each other.

This study found that RES still functioned at the "congenial" level, despite the number of NBCTs. Themes of congeniality appeared consistently throughout this study. Participants spoke frankly about established relationships and having a sense of belonging to the group: "friendship" and "a sense of family." There was little reporting of working together collegially or actively collaborating beyond the initial work towards obtaining NBC and a general sense of respect for one another. "I enjoy watching the interactions between my colleagues, especially those who were going through the National Board process. We have formed bonds and friendships." Teachers felt that there was a sense of respect for each other but even more so for the teachers who had been National Board certified:

> Going through the process brought us close together but it also gave us a greater sense of respect for each other as we endured the trials, failures, and successes together. I see that also from the other teachers who have not been through the process. They have a certain level of respect for us.

National Board certification was perceived to have a definite effect on teacher affiliation relating to congenial relationships. The process through which the NBCTs worked forged collaboration and almost a dependency upon each other, resulting in sustained congenial relationships. To this extent, NBC did impact the climate of the school, according to all participants in the study.

Participants felt that not only the school community but also the entire district and outside community saw National Board achievement as something to applaud and respect for the amount of work involved and national status achieved. The themes of congeniality--friendship, family, and respect--which Barth (1991) argued provide a necessary basis for the faculty's sense of community and its work with students, were essential findings in this study. However, he argued, congeniality does not provide any meaningful attention to the work teachers do with students. In fact, the more important themes analyzed were themes of collegiality which can be discerned in the OHI-E subtests of academic emphasis, instructional integrity, and resource influence. These collegiality themes fit snugly with the principles behind NBC in looking at the professional gains of the school climate. Little and Curry (2009) state that collegiality occurs when educators talk about their practice, observe each other engaged in instruction, work collaboratively to plan design, and evaluate instruction, share best practices, and assume leadership roles. True collegiality is more than just liking each other and being friendly to each other. It calls for the release of self-reliance and autonomy to the collaborative interactions and practices of the group.

The premises of Little and Curry (2009) correspond to Proposition Five of NBPTS, which highlights the contribution of NBCTs to the school community through genuine collaboration with other colleagues. However, there was an absence of collegial collaboration or collegiality among teachers at RES. Participants readily acknowledged engaging in a minimal number of collegial and collaborative exercises, attributing the void to school size and limited time factors. What they do engage in, according to Hargreaves (2007), is contrived collegiality in the form of mandated team meetings and in-services. The principles of NBPTS were founded on the premise of teachers' willingness and desire to improve student learning after first enhancing

their own knowledge and practice. These teachers collaborate with colleagues to share, learn, and reflect together. Under this notion, teachers at RES should be regularly engaging in professional dialogue with colleagues; sharing ideas, knowledge, and techniques; and participating in collaborative problem-solving around classroom issues. They should be working with each other and non-NBCTs to develop shared knowledge and solve challenging problems. This was not the case.

In this study it was apparent there was trust in the principal and between colleagues. Conversely, data sources indicated was an absence of collegiality among teachers. Hargreaves (2010) contends that in spite of the numerous benefits, collegiality is still a rare element in most schools. Barriers to collegial collaboration include lack of communication, according to researchers Bennett (2010) and Hipp and Huffman (2010). This was true in the case of RES. The most commonly mentioned problem centered on lack of communication between administration and teachers and staff. Typical comments were, "Sometimes there is information that should be passed down to teachers or staff, and we often have to hear it from each other rather from administration." Participants at RES revealed a sense of resentment at being left out of conversations relating to their work. They recalled circumstances when communication pertaining to one requirement or another could have prompted them to discuss or collaborate with each other, but because not everyone was aware, those who were, by assuming everyone knew, didn't communicate or collaborate on the issue. In other cases, participants recalled receiving the information second hand, and in the fashion of indirect communication, it was sometimes inaccurate and made completing the required task effectively more difficult. The data revealed issues in the communication network of the building, which Lunenburg and Ornstein (2012) say should be open to all members of the organization. In the event that communication

was mishandled or incomplete, participants were still held accountable for the outcome of the expected task, which many considered unfair and potentially affected the climate, at least in the short term.

In this study, the principal's impact on the school was contradictory. On one level, the principal was perceived as being friendly, approachable, and fair, but she was also a hierarchical leader who controlled the professional development in the school and did not overtly encourage teacher leadership. For instance, on the technical level, data results illustrate that teachers perceived daily schedules as too "tight," a major cause of diminished collaboration. Administrators argued that increasing local and federal mandates and accountability measures created the need for teachers to cover many items during the day. In addition to adverse collaborative circumstances, this school also had limited opportunity for collaborative teaming. While team meeting time provided to participant teachers was scheduled every six days, there was little autonomy, as it was narrowly focused on student achievement data-mining as prescribed by administrators. Leonard and Leonard (2005) studied the collaborative practices of teachers and found that the absence of principal support interfered with the continuity of those practices. In the case of Royal, teachers perceived a strong level of principal support. However, there was also evidence of principal mandate. The principal conducted all in-services and professional development activities, and set the agenda for, and attended team meetings. Coelli and Green (2012) argue that effective principals are more likely to provide their teachers with the necessary feedback and resources to create a framework that gives them autonomy and support to reach shared objectives.

Not only does collegial leadership of the administration have an effect on climate, this study shows that teacher *sense of efficacy* is another important factor. Teachers reported a strong

sense of efficacy, although they emphasized that this was long-standing and independent of NBCTs' influence. Not unexpectedly, all participants reported a high sense of efficacy: feeling a close tie to their work. NBCTs in this study reported a renewed sense of ownership of their work, and many reported becoming more reflective practitioners who paid closer attention to individual needs of the students while using both older and newly acquired knowledge to enhance their instructional strategies. It seems somewhat paradoxical for teachers to claim a sense of renewal yet project the weak sense of collegiality and collaboration evidenced at RES. The reported changes in practice are supported by Propositions Four and One respectively.

As reported in Chapter Four, *support* can be a huge contributor to the sense of efficacy, and was a major theme in this study. NBCTs felt adequately supported through the process: from the administration in terms of availability of resources, from colleagues in the form of encouraging words, and from each other as a cohort with comparable expectations and experiences. They reported continuing to feel supported by the administration if and when necessary. Participants also believed that colleagues were consistently supportive and available if and /or when a need arose. However, NBCTs experienced a drastic diminishing of collaboration with each other after certification. The assessment process is intense and demanding. The roughly forty percent who were successful did so at the expense of hundreds of hours of commitment to producing portfolios

Research on NBC cites leadership as a motivating factor for teachers participating in the NBC process. As a consequence of minimal collaborative support, *teacher leadership* at RES had not materialized as a result of NB certification, nor had it been an established practice. One of the underlying desires of the Carnegie Forum and the origin of NBPTS was to have a representative force of teachers in the movement for educational reform to professionalize

teaching and have teachers act as leaders within their schools. This characteristic was missing among NBCTs in this study. Teachers at RES did not express a desire to be in leadership positions, nor did they seek to become administrators or other instructional leaders. Collaboration was admittedly marginal beyond teachers' Act 80 in-service days. A few teachers who consistently worked together, did not attribute this to NBC but to their previously established close relationships. The occasional consultation for advice or feedback was described as inconsistent, infrequent, and for insignificant periods of time, a concept that materialized as another challenge. The founders of NBPTS envisioned in its construction of the NBCT standards that there would be a spill-over effect and that NBCTs would have broad impact and influence on how their colleagues teach (Koppich, Humphrey, & Hough, 2007). Realization of these behaviors requires organizational structures in place that scaffold the development of teacher leaders or distributive leadership practices (Lunenburg & Ornstein, 2012).

Very few participants in this study admit to using personal time before and/or after school for collaboration. Time allocated for team planning sessions once every six days was dedicated to student data analysis and the agenda was predetermined by the administrators. Hargreaves (2010) describes this practice as contrived collegiality.

Cantrell et al. (2008) posit that NBCTs generally desire a wider range of resources such as time to research and plan, classroom materials, professional development, autonomy, and leadership roles. He contends that they have higher aspirations for their students and therefore need resources to achieve these goals. The researcher did not find strong evidence of these resources in the course of this study. For NBCTs at RES to effectively carry out the work they are certified to perform, structures must be put in place that not only leverage teacher capital but provide them with adequate supports and resources to do so. Participants acknowledged not being

provided with adequate supplies and time, nor are they engaged in the professional development of their colleagues formally, and only minimally informally.

Participants discussed lack of *time* as another difficulty they experienced. They perceived the daily schedule as demanding, leaving little to no time for collaboration between and amongst grade teams and/or individuals. They also seemed perceive the daily schedule to be tightly defined, starting at the beginning of the school day and ending when the students leave, as defined by union contract, as opposed to having time to reflect on the learning needs of the students' within their care.

Participants readily admitted there was a minimal exchange of instructional practices and consultation. These findings are supported by the research of Friend and Cook (2000), who argue that the most prominent barrier to shared work activity among educators is the issue of time. Participants reported a sense of feeling "rushed" during the course of the day, so that little time was left to devote to other than preparing for the "next thing." Some teachers tried to compensate by arriving few minutes early and/or staying a little later than work hours. This extra time, however, was dominated by preparing lesson plans and/or materials. Leonard and Leonard (2003) also found paucity of time as a major obstacle to collaboration and that teachers viewed the expectation to use personal time after school for collaboration to be inappropriate. It is indisputable that there never seems to be enough time in the day to do all that is required. Experience bears that out. However, a part of effective teaching, as prescribed by all aforementioned research, requires planning, collaborating, sharing best practices, reflecting, and engaging in critical inquiry. One implicit expectation of NBPTS, parents, administrators, and even students is that teachers should be willing to make some sacrifice to ensure they are engaging in these practices so that explicit expectations are met. There is no doubt that

exceptional teachers are often willing to make this sacrifice. As previously stated, the rigorous process of NBC may be unsustainable. Nevertheless, engagement in such practices to a somewhat lesser degree would fill the void in what was, at RES, a community of autonomous individuals who possessed the knowledge and skills to effect a transformational community of learners, influencing colleagues with their expertise.

According to Nathan (2002), school size can hinder collegiality. He found that teachers in smaller schools are more likely to collaborate with each other. There is less isolation and a greater sense of connectedness. Teachers in small schools are more likely to know the needs of a greater percentage of their students and are able to engage in collegial conversations about them. Small schools also have fewer building administrators, opening up a greater opportunity, and some might argue need, for distributive leadership. Parent involvement in small schools would also be higher due to the close connection made possible with teachers and administrators. It would be expected that RES, as a small school, purportedly an ideal size for a school, would be rich in teacher collaboration and shared leadership. Surprisingly and contrary to ideas espoused, size did not contribute to the professional/collegial relationships at RES. It did, apparently, play a role in congenial relations.

There may be a general expectation that high-performing schools are adequately supplied with necessary resources. The results of this study revealed that teachers in this high-performing school reported having inadequate resources to teach and facilitate learning. Once again, administrators are the primary advocates and negotiators for ensuring that teachers have the necessary resources to teach the curriculum effectively. It is unclear, however, what impact NBCTs have on this aspect of the school's climate.

Further Implications

The OHI-E divides climate into five subtests, enabling the researcher to more closely examine the individual subtests/themes related to school climate. However, little research has been conducted pertaining to organizational climate using the OHI-E in the last 10 years, and there is no research on the role of National Board certification and its effects on school climate. One reason for this could be the bias of the instrument in favor of examining congenial relationships. The more contemporary researchers measuring climate, such as the many cited throughout this paper, tend to explore the collegial/collaborative aspects, since the indications are that they play a greater role in student achievement. The mission of NBPTS, as explained earlier, is to transform teaching and learning through the development of highly effective teachers. The findings in this study, therefore, provide some limited additional insight to educational leaders regarding the perception of the effect National Board certification has on school climate. Additionally, the findings of this study may provide information that could be applied to other schools.

NBPTS developed the certification system with the distinct intent of concentrating on developing/identifying highly effective teachers who would be: committed to their students and learning, masters in the subjects they teach, excellent managers and monitors of student behaviors, reflective practitioners, promoters and members of PLCs, and student advocates (NBPTS, 2013). The essence of NBPTS' main objective is to increase student achievement through the development of highly effective teachers. In effect, this means that administrators must find a way to build capacity by leveraging the human capital of skills and knowledge of NBCTs. In considering this, one must consider the following quote by Barth (1991): Teachers

have extraordinary leadership capabilities, and their leadership is a major untapped resource for improving our nation's schools.

As reflected in Chapter Two, National Board certification is regarded by researchers and other educators as an efficient and effective form of professional development intended to create a culture of highly skilled educators. School systems must be encouraged to explore the potential of these trained instructional leaders through the continued establishment of communities and other effective practices.

Due to the accountability demands placed on educators by federal, state, and local legislation, teachers are often overwhelmed with data, progress tracking, or documenting records. These responsibilities often isolate teachers from each other and increase frustration that can lead to burnout (Fullan, 2007). Such accountability demands are a permanent part of current educational practices, so school leaders must ensure that teachers are provided with support (e.g., mentors), time for planning and communicating with others, professional development, and available resources. To ensure positive climate, administrations should work hard to expand the professional capacity of teachers by facilitating and encouraging the development of coherent professional communities (Fullan, 2007). Building and sustaining such relationships are critical to improving the organizational health of schools.

The results of this research have implications not only for the administration, faculty, and staff of the school that participated in the study, but also for all leaders in the field that strive for healthy organizations. Based on the findings in research that teacher affiliation has a positive impact on climate, the need for administrations to take a greater responsibility toward promoting teacher affiliation is emphasized. NBCTs can have a great impact if administrators encourage behaviors such as peer support. The administrators must create conditions such as grade-level

meetings where teachers can exercise collaboration and NBCTs can share best practices (Finnan, 2000). Engaging NBCTs as mentors could serve as a way to utilize the skills and techniques developed through the NBC process. This would be of great value not only in enhancing the instructional effectiveness of NBCTs but also of non-NBCTs as a form of professional development. Cross-grade team meetings can also be effective to ensure common expectations and values supporting the school's vision and mission. Visions should be shared across all stakeholders, thereby increasing the investment in making them a reality. Teachers are on the frontline in this respect, and as such they need to engage in the practices through which the vision will be realized. NBPTS, in its fifth proposition, state that NBCTs assess school improvement and pay attention to distribution of resources in order to meet education goals. The school's vision is a definite objective towards which NBCTs at RES should be working. Again, however, systems were not in place to aid and monitor them in this endeavor, nor did they appear to have the desire and/drive to pursue such enterprises.

Teachers' participation in decision making is linked to climate (Lunenberg & Ornstein, 2012). This can be even more valuable if the teachers included in the decision-making process are masters of their craft: they stay abreast of contemporary issues in education, constantly reflect and revise their techniques, and adhere to self-improvement standards such as advocated by NBPTS (2007). NBCTs, as a result of the certification process, have developed valuable knowledge and expertise that can be used when making organizational decisions, specifically, when the decisions are related to teaching and learning. Administration should exercise a more flexible decision-making process, adapting behaviors that demonstrate a shared method. Administrators should treat teachers as professionals in creating a healthy organization that allows for shared-decision making and development of teacher leaders.

Administrators must develop a climate where their teachers feel they are protected and supported by the principal and that the principal will deliver for his/her teachers. Not only do teachers need support from the principal, but they also need support from the central administration independent of, and in consort with, the principal (Hoy & Tarter, 2008). This component was also missing at RES. The teachers need to see that the principal has influence with his/her superiors. Administrators can exercise influence by promoting the contributions of NBCTs.

Across the country, policy makers are considering countless economic inducements and salary structures to entice NBCTs or encourage teachers to pursue certification. The findings of this study suggest that monetary inducements alone are likely to fail. A more hopeful tactic would be to create systemic change that supports and encourages teachers to infuse NBPTS standards and practices into the daily work of educating students.

Contributions to the Literature

This study has contributed to the literature by examining the school environment within a small rural school in Pennsylvania and determined what relationship exists between school climate and National Board certification, which lends additional implication for practice in the field of education. The findings of this study are unique in that no previous similar research could be found by the researcher. The findings provide additional support for the work on school climate of Brookover et al, (1978) and Hoy et al. (1990, 1992, & 1997). It also opens up a "genie's bottle" of questions relating to the impact of National Board certification on the climate of schools. The study adds to the literature with evidence from the perspectives of teachers that the process facilitated a metamorphosis in pedagogy and is therefore an effective form of PD. The research also concludes that in schools with a critical mass of NBCTs, the impact could

conceivably be a positive, congenial climate. The study also, however, puts educational leaders and decision-makers on notice that it is not enough just to provide PD through National Board certification with no follow-though. It is necessary, in order to leverage the human capital that results from NBPTS certification, to put systems in place that promote the required and expected practices and outcomes.

Much of the attention on National Board certification has centered on the impact of NBC on teacher effectiveness and of National Board-certified teachers on student learning. Educational leaders should also have an awareness of the impact of National Board-certified teachers on school climate. This knowledge could contribute to making educated choices about the allotment of bonuses and wage enhancements based on certification status, along with the allocation of resources for professional development.

Professional development, mandated for every public school teacher, accounts for approximately 1.5% to 5% of districts' budgets in the US. This is approximately $11 billion per year on teacher in-servicing. Spending this much on PD that has thus far proven unsuccessful in producing long-lasting transformations in teachers' instructional practices seems a fruitless way to allocate resources. There has been no PD to date that has adequately provided much-needed long-lasting transformations. However, what has been proven by research is that learning which is contextual, collaborative, reflective, germane, and immediately useful is more effective.

The process of National Board certification is designed as a form of professional development. NBC, costing approximately $13 million yearly, offers these advantages and can be a cost-effective way to provide ongoing, relevant teacher professional development if utilized efficiently. Districts need information on school climate, on NBC, and the effect they have on each other, so that they can plan PD that would empower NBCTs to share with other teachers the

information they need to be effective in the use of NBC standards to affect school climate and consequently student outcomes. In addition, there needs to be sustained commitment by teachers, as well as administrators, to the realization of the expectations of Board certification. Leadership should be constructed in a way that is conducive to shared engagement, participation, decision-making, and other collegial/collaborative practices. The organizational structure of the district and/or school should use NBPTS standards and propositions as a guide to meeting necessary requirements.

This study has implications for school climate as well. Research completed by Sherblom et al. (2006) indicates that schools, in developing a list of factors that affect school climate, should pay special attention to the impact of National Board--certified teachers if the goal is school climates that are favorable to enhanced student outcomes through the use of highly qualified teachers.

Additionally, the site of this study provided additional clarification of NBCs influence on school climate in a rural district. As a relatively new field of study, much of the research on NBC is either focused directly on teacher learning or student achievement in predominantly urban districts. Such districts tend to provide large and/or struggling populations, conducive to major research.

OHI results can be analyzed for the effects of NBC, along the five dimensions, to determine areas of strength and weakness in schools. For example, a school obtaining below-average results on academic emphasis may use NBCTs' knowledge to target that area in an effort to build positive collegial relationships among teachers by developing collaborative groups or professional learning communities. Strengths could be further assessed to determine strategies to target less-developed dimensional areas.

If school climate is a significant factor affecting student outcomes, and ultimately a school's overall health, then what (or who) determines the school's climate is of paramount importance to leaders and educational decision makers (Bolman & Deal, 2008). As the day-to-day leaders within the school, teachers, staff, and administration are integral components in defining the school's climate; therefore, their perceptions of that climate are vital. Building a positive school climate will not only work to improve student outcomes, but it will promote better morale, staff performance, and overall healthy environment (Cohen et al., 2009). Furthermore, because schools are complex and ever-changing organizations, understanding the relationship between school climate and NBC and the factors associated with influencing a school's climate, such as NBC, is significant to a school's success.

Conclusions

The findings in this study raise questions for the field of education as we consider the impact of National Board certification on the professional interactions of teachers. It is clear that sharing and discussion of practice are essential to establishing collegiality in schools (Hargreaves, 2010). It is also clear that the propositions of NBPTS not only support but in practice are a part of effective teaching (NBPTS, 2013). We also know that increased regular communication among teachers is critical to improving student achievement. However, fostering candor and collegiality, like any other school improvement initiative, requires strong leadership. Decades of research has shown that no change effort can survive the traditional autonomous nature of the teaching profession or systems that are not conducive to innovative initiatives. In this study, the school's leaders, although somewhat supportive and open to ideas, seem to be tied to a system that is apparently unyielding to the implications of the lack of collegiality and underutilization of its sub-culture of NBCTs. With the idea of building collegiality being

counter-cultural, it creates the need for leadership to make changes that both support and hold teachers to the higher standard of collegiality building. Gray and Streshly (2008) state that administrators need to be flexible for teachers to truly collaborate. They state that collaborative efforts are thwarted if the school/district's schedule does not allow for time to engage in these efforts so that collaborative cultures can be fostered.

Hord (2004) explained that collaboration entails joint work, reciprocated observation, and concentrated inquiry. Teachers interact intelligently and energetically, rather than being congenial and complacent. In examining the relationship between school climate and National Board certification, the data analyses and results of this study have provided a basis for the following conclusions: National Board certification is correlated with school climate in the area of congenial relationships. This finding fills a cavity in earlier studies looking at school climate and student achievement (Brookover, 1978; Hoy et al., 1991; Cohen, 2009). Analysis of all data from surveys, interviews, and observations provided evidence to support the conclusion that there is a positive congenial relationship between school climate and NBC based on teacher, staff, and administrator perceptions.

Furthermore, while this study is qualitative in nature and unable to be generalized, schools of similar size with similar large percentages of NBCTs might consider these findings. In this particular setting, NBC does not demonstrate effects on collegial relationships, and NBCTs' roles remained fundamentally unchanged subsequent to certification. A major factor of this underuse of NBCTs may be linked to the systemic configurations of the profession that restrict time and resources available for NBCTs to assume leadership positions. However, creative administrators can reorganize their systems and structures to capitalize on the wealth of knowledge and skills possessed by the large cadre on NBCTs in their districts and/or schools.

This aspect of school climate and NBC is recommended for further research in the following section.

Recommendations

Recommendations for Practice

Analysis of literature conducted for, and the results of, this study alerts administrators interested in using NBCTs to enhance the collegial climate in their schools to contemplate the following endorsements: Educators must be aware of the obstacles to collegiality that exist in the structure of their organizations (Leonard & Leonard, 2003); administrators must prevent the prevalence of isolationist teaching practices by uncovering ways of promoting collegial growth among staff (Hargreaves, 2010); teachers should be provided opportunities for frequent collaboration, and teachers who involve themselves in teamwork should be appreciated (Lunenberg & Ornstein, 2012). Administrators must put the creation of a positive climate to the top of their list of priorities and guarantee that every subordinate feels part of the educational community. The expertise of NBCTs should be included in decision-making and leadership roles. Administrators should consider allowing for more teacher autonomy during collaborative sessions so that they can make decisions regarding pedagogical needs and sharing practices (Fisher, 2003). Another key recommendation is that administrators become knowledgeable about NBPTS' core propositions and focus on infusing those propositions into the daily school structure and routine.

Recommendations for Further Research

The current study is one piece of the puzzle in understanding the relationship between school climate and National Board certification. The findings of this study offer implications for further research needed in school climate and NBC. For future researchers who may be

interested in studying school climate and National Board certification the following are possible research opportunities. Results of the analyses completed in this study raise several methodological issues and concerns and research questions.

Methodological Recommendations

One consideration is that this was a "snapshot" of one school at one particular time. Results of the data collected may have been skewed since the survey instrument was administered during a potentially chaotic time for educators. The study was conducted late in the school year and while the obvious benefit to that is in the teachers having had the advantage of the entire school year during which to form opinions, it is also not an optimal time frame since teachers may have been less than able to give total attention to carefully comprehending and responding to the questions. One clear methodological proposition would be to utilize a different time-frame during which teachers are not as busy in order to optimize validity of responses.

This study is also limited in it generalizability. This study was undertaken with a very small sample size therefore another recommendation would be to conduct follow-up studies with larger schools, and consequently more teacher participants. Threats to external validity can be minimized by increasing the population size.

Recommendations for Research

Instrumentation may have presented an issue in the study. The initial purpose and research questions sought to understand the climate of the school as affected by National Board-certified teachers. The OHI-E survey was chosen because of its attention to various aspects of school climate and was supplemented by interviews, focus groups, and direct observation. As data analysis continued, differences between congenial and collegial themes emerged. The subtests of the OHI-E focus primarily on themes that are more congenial than collegial. This

inconsistency presented issues in attributing the results of many subtests to National Board certification. Subsequently, the other data collection sources-- interviews, focus groups, and observations--were manipulated to fill the void of the survey tool relative to collegial themes. Paying closer attention to the compatibility of data-collection instruments to research questions and purpose can curtail some threats to validity.

This study could be replicated among a larger population of rural or urban schools provided that the schools are comprised of a similar high percentage of NBCTs. Empirical data collected from other populations could allow school leaders to analyze the relationship between NBC and climates of larger, more diversified schools and schools in small rural districts. Additionally, large and more varied populations as the unit of analysis could shed additional light on the climate of other populations and the effects of NBC.

Another area to explore is leadership style, which played an important role in this study. The leadership evidenced seemed stifling to NBCTs who had no leadership opportunities or schedule or time flexibility, nor was there an apparent encouragement to extend their knowledge and expertise beyond their own classroom walls.

The final area to be examined is how organizational structure impedes or enhances the effect that National Board certification has on school climate. Both physical structure and organizational structure potentially played a role in this study. The size of the building and time emerged as themes from the data. Participants reported a lack of time due primarily to the inflexibility of the daily schedule as a major block to their ability to collaborate. The small size of the school was regarded as a possible reason why there was no sense of urgency in establishing lead teachers or team leaders. Further exploration of this impact as it relates to

hierarchical structure and physical layout could add new insight into areas that assist or obstruct the effectiveness of NBCTs.

Chapter Summary

This case study was intended to explore the perceptions of administrators, teachers, and staff on the effects of having a large number of National Board-certified teachers on school climate/health. Given the relative novelty of National Board certification in the field of education, no studies exist that target the particular idea of the perception of National Board certified teachers and their impact on school climate..

National Board for Professional Teaching Standards (1989) set about "creating more professionally rewarding relationships between teachers and between teachers and administrators" (pp 2-3).The perceptions of this study's participants led to the conclusion that some worthwhile relationships have resulted and perceptions were positive about the impact of NBC on school climate.

In Pennsylvania, National Board-certified teachers make up .79% of the teaching population and slightly more than 3.4% nationally, with the numbers growing each year. As this trend continues, it is imperative that administrators become knowledgeable about the National Board certification process and the effects it has on the learning and teaching environment. Knowledge of what effective teaching is, as defined by NBPTS and illustrated by NBCTs, may provide added understanding about how to maximize the impact of the skills and knowledge of the growing number of National Board-certified teachers.

In summary, the body of literature and research surrounding the relationship between student achievement and school climate has a long-standing tradition (Brookover et al., 1978; Cohen et al., 2009; Fisher & Fisher, 2009). Although the association of student achievement with

school climate has been explored, more research is needed, and this study lends additional support to the focus on how National Board certification influences school climate. The results of this study fill a vacuum in prior research, presenting a compelling argument for how school leaders can utilize NBCTs to foster a positive school climate to increase outcomes for students. Today more than ever, it is crucial that school leaders be conscious of all variables that influence student outcomes and focus their time and energy on factors that impact the teaching and learning process, of which school climate is a significant factor. Leaders must construct a system that taps into the wealth of knowledge and skill of NBCTs to develop an engaging, collaborative school climate for faculty, staff, and school administrators (Hughes & Pickeral, 2013).

The results of the interviews conducted based on the five dimensions of organizational health indicate no significant difference in perception in each dimension of organizational health between teachers who were National Board certified and teachers who were not. What is evident, however, is the focus on congenial relationships, with little focus paid to building collegiality. Collegiality can be created from structures that empower teachers as leaders and allow all stakeholders to assume responsibility for the success of the school.

Chapter V provided a discussion of the findings, implications for practice, recommendations for practice, and methodological recommendations for future research. This research concluded that there is a relationship between school climate and NBC. These results can be used as a foundation upon which future research on school climate and National Board certification can be built. Sustained study in the areas of school climate and NBC and other aspects of the learning environment may allow school leaders to establish and maintain healthier schools and, ultimately, improve student outcomes.

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APPENDICES

Appendix A

Informed Consent Letters

SUPERINTENDENT – PERMISSION TO CONDUCT RESEARCH

Dear Superintendent:

This letter is being written to request your permission for me to conduct research at your institution.

I am conducting a research study entitled "The effects of National Board certification on school climate: Perceptions of teachers, staff, and administrators." This study is being conducted by Carolyn Headley, a doctoral student in the Administration and Leadership program offered by Indiana University of Pennsylvania in collaboration with East Stroudsburg University. The purpose of this study is to gather information about the climate of your school as it relates to National Board certification. You were selected to participate in this study due to the large number of National Board Certified teachers at your school.

Participation in this study is entirely voluntary and participants may withdraw consent at any time without any penalty and upon request, any results of participation may be returned, removed from the records, or destroyed. If you decide to grant approval for participation in this study, participants will engage in three activities, a survey; observation of their daily routine; and participation in an interview or focus group.

The survey will be administered during a team meeting and should take about 10 minutes to complete. The observations will occur, with no interference from the researcher, as interactions occur between participants during the course of a three-week period. The interview session will last about 30 minutes. The interviews will be audio recorded and transcribed using an internet service. If needed, a 15 minute follow-up interview may be scheduled with participant approval and may occur by telephone. Participants will be afforded the opportunity to review the transcript records for all interviews for accuracy. There is minimal risk associated with this research. What is chosen to share in the interview is entirely up to the participant. All participant identities will be kept confidential and will be known only by the principal researcher conducting the interview. The research records will be kept private and will be stored in a locked filing cabinet in I's office. Only I will have access to the research records.

During the survey and interviews participants will be asked questions relating to the climate of their school as well as questions about National Board certification in the building. I do not anticipate any risks associated with answering these questions to be greater than any risks encountered on a daily basis. Your participation will be instrumental in determining the effects of National Board certification on school climate, and add to the literature on each respective concept.

There is no compensation for participation in this study.

This research study has been reviewed by the East Stroudsburg University of Pennsylvania Institutional Review Board for the protection of Human Subjects in Research, East Stroudsburg University. For research-related problems or questions regarding your rights, you can contact the

Institutional Review Board through Shala Davis chair of the Institutional Review Board at East Stroudsburg University, at (570-422-3336) or by email at sdavis@po-box.esu.edu. Or you may contact I, Carolyn Headley by phone at 484-892-5411 or by email at cah3682@live.esu.edu or at lyn164life@aol.com. You may also contact her faculty advisor, Dr.Alison Rutter, by email at arutter@po-box.esu.edu.

Please be sure you have read the above information, asked questions and received answers to your satisfaction. You will be given a copy of the consent form for your records. By signing this document, you consent to participate in the study.

Participant Signature _____Date _____

Participant Name (printed) _____

Principal Investigator Signature _____
Date_____

Principal Investigator Name (printed) _____

INFORMED CONSENT- TEACHER

For a study entitled

"A Case Study of the Effects of National Board certification on School Climate:

Perceptions of Teachers, Staff, and Administrators"

You have been invited to participate in a research study of the effects of National Board certification on school climate. This study is being conducted by Carolyn Headley, a doctoral student in the Administration and Leadership program offered by Indiana University of Pennsylvania in collaboration with East Stroudsburg University. The purpose of this study is to gather information about the climate of your school as it relates to National Board certification. You were selected to participate in this study due to the large number of National Board Certified teachers at your school.

Your participation in this study is entirely voluntary and you may withdraw your consent at any time without any penalty and upon request, any results of your participation may be returned, removed from the records, or destroyed. If you decide to participate in this study you will participate in a survey; you will be observed in your daily routine; you will participate in an interview.

The survey will be administered during a team meeting and should take about 10 minutes to complete. The observations will occur, with no interference from I, as you interact with your colleagues and administrators during the course of a three-week period. The interview session will last about 30 minutes. The interviews will be audio recorded and transcribed using an internet service. If needed, a 15 minute follow-up interview may be scheduled with your approval and may occur by telephone. You will be afforded the opportunity to review the transcript records for all interviews for accuracy. You understand that there is minimal risk associated with this research. What is chosen to share in the interview is entirely up to you. You understand that your identity will be kept confidential. Your identity will be known only by the principal researcher conducting the interview.

During the survey and interviews you will be asked questions relating to the climate of your school as well as questions about National Board certification in your building. I do not anticipate any risks associated with answering these questions to be greater than any risks you encounter on a daily basis. Your participation will be instrumental in determining the effects of National Board certification on school climate, and add to the literature on each respective concept.

There is no compensation for your participation in this study.

Your participation is completely voluntary and any information you provide as your part in the study will be kept confidential. I will store all related documents in a locked cabinet in I's office, and will be destroyed using a paper shredder three years from the date of the study I will answer

any further questions about the research, either now or during the course of the project. Upon request, a report on this study's findings will be sent to you. Your decision on whether or not to participate will not affect future relations with your colleagues or administrators as all information will be kept confidential. If you decide to participate you are free to withdraw at any time. A signed copy of this consent will be provided to you.

This research study has been reviewed by the East Stroudsburg University of Pennsylvania Institutional Review Board for the protection of Human Subjects in Research, East Stroudsburg University. For research-related problems or questions regarding your rights, you can contact the Institutional Review Board through Shala Davis chair of the Institutional Review Board at East Stroudsburg University, at (570-422-3336) or by email at sdavis@po-box.esu.edu. Or you may contact I, Carolyn Headley by phone at 484-892-5411 or by email at cah3682@live.esu.edu or at lyn164life@aol.com. You may also contact her faculty advisor, Dr.Alison Rutter, by email at arutter@po-box.esu.edu.

Please be sure you have read the above information, asked questions and received answers to your satisfaction. You will be given a copy of the consent form for your records. By signing this document, you consent to participate in the study.

Participant Signature _____Date _____

Participant Name (printed) _____

Principal Investigator
Signature_____Date_____

Principal Investigator Name (printed) _____

INFORMED CONSENT- ADMINISTRATOR

For a study entitled

"A Case Study of the Effects of National Board certification on School Climate:

Perceptions of Teachers, Staff, and Administrators"

You have been invited to participate in a research study of the effects of National Board certification on school climate. This study is being conducted by Carolyn Headley, a doctoral student in the Administration and Leadership program offered by Indiana University of Pennsylvania in collaboration with East Stroudsburg University. The purpose of this study is to gather information about the climate of your school as it relates to National Board certification. You were selected to participate in this study due to the large number of National Board Certified teachers at your school.

Your participation in this study is entirely voluntary and you may withdraw your consent at any time without any penalty and upon request, any results of your participation may be returned, removed from the records, or destroyed. If you decide to participate in this study you will participate in a survey; you will be observed in your daily routine; you will participate in an interview.

The survey will be administered during a team meeting and should take about 10 minutes to complete. The observations will occur, with no interference from I, as you interact with your colleagues, teachers and staff during the course of a week. The interview session will last about 30 minutes. The interviews will be audio recorded and transcribed using an internet service. If needed, a 15 minute follow-up interview may be scheduled with your approval and may occur by telephone. You will be afforded the opportunity to review the transcript records for all interviews for accuracy. You understand that there is minimal risk associated with this research. What is chosen to share in the interview is entirely up to you. You understand that your identity will be kept confidential. Your identity will be known only by the principal researcher conducting the interview.

During the survey and interviews you will be asked questions relating to the climate of your school as well as questions about National Board certification in your building. I do not anticipate any risks associated with answering these questions to be greater than any risks you encounter on a daily basis. Your participation will be instrumental in determining the effects of National Board certification on school climate, and add to the literature on each respective concept.

There is no compensation for your participation in this study.

Your participation is completely voluntary and any information you provide as your part in the study will be kept confidential. I will store all related documents in a locked cabinet in I's office, and will be destroyed using a paper shredder three years from the date of the study I will answer

any further questions about the research, either now or during the course of the project. Upon request, a report on this study's findings will be sent to you. Your decision on whether or not to participate will not affect future relations with your colleagues, teachers or staff as all information will be kept confidential. If you decide to participate you are free to withdraw at any time. A signed copy of this consent will be provided to you.

This research study has been reviewed by the East Stroudsburg University of Pennsylvania Institutional Review Board for the protection of Human Subjects in Research, East Stroudsburg University. For research-related problems or questions regarding your rights, you can contact the Institutional Review Board through Shala Davis chair of the Institutional Review Board at East Stroudsburg University, at (570-422-3336) or by email at sdavis@po-box.esu.edu. Or you may contact I, Carolyn Headley by phone at 484-892-5411 or by email at cah3682@live.esu.edu. You may also contact her faculty advisor, Dr.Alison Rutter, by email at arutter@po-box.esu.edu.

Please be sure you have read the above information, asked questions and received answers to your satisfaction. You will be given a copy of the consent form for your records. By signing this document, you consent to participate in the study.

Participant Signature _____Date _____

Participant Name (printed) _____

Principal Investigator Signature_____ Date_____

Principal Investigator Name (printed) _____

INFORMED CONSENT- STAFF

For a study entitled

"A Case Study of the Effects of National Board certification on School Climate:

Perceptions of Teachers, Staff, and Administrators"

You have been invited to participate in a research study of the effects of National Board certification on school climate. This study is being conducted by Carolyn Headley, a doctoral student in the Administration and Leadership program offered by Indiana University of Pennsylvania in collaboration with East Stroudsburg University. The purpose of this study is to gather information about the climate of your school as it relates to National Board certification. You were selected to participate in this study due to the large number of National Board Certified teachers at your school.

Your participation in this study is entirely voluntary and you may withdraw your consent at any time without any penalty and upon request, any results of your participation may be returned, removed from the records, or destroyed. If you decide to participate in this study you will participate in a survey; you will be observed in your daily routine; you will participate in a focus group.

The survey will be administered during a team meeting and should take about 10 minutes to complete. The observations will occur, with no interference from I, as you interact with your colleagues and administrators during the course of a three-week period. The interview session will last about 30 minutes. The focus group will be audio recorded and transcribed using an internet service. You understand that there is minimal risk associated with this research. What is chosen to share in the interview is entirely up to you. You understand that your identity will be kept confidential.

During the survey and focus group you will be asked questions relating to the climate of your school as well as questions about National Board certification in your building. I do not anticipate any risks associated with answering these questions to be greater than any risks you encounter on a daily basis. Your participation will be instrumental in determining the effects of National Board certification on school climate, and add to the literature on each respective concept.

There is no compensation for your participation in this study.

Your participation is completely voluntary and any information you provide as your part in the study will be kept confidential. I will store all related documents in a locked cabinet in I's office, and will be destroyed using a paper shredder three years from the date of the study I will answer any further questions about the research, either now or during the course of the project. Upon request, a report on this study's findings will be sent to you. Your decision on whether or not to participate will not affect future relations with your colleagues or administrators as all

information will be kept confidential. If you decide to participate you are free to withdraw at any time. A signed copy of this consent will be provided to you.

This research study has been reviewed by the East Stroudsburg University of Pennsylvania Institutional Review Board for the protection of Human Subjects in Research, East Stroudsburg University. For research-related problems or questions regarding your rights, you can contact the Institutional Review Board through Shala Davis chair of the Institutional Review Board at East Stroudsburg University, at (570-422-3336) or by email at sdavis@po-box.esu.edu. Or you may contact I, Carolyn Headley by phone at 484-892-5411 or by email at cah3682@live.esu.edu or at lyn164life@aol.com. You may also contact her faculty advisor, Dr.Alison Rutter, by email at arutter@po-box.esu.edu.

Please be sure you have read the above information, asked questions and received answers to your satisfaction. You will be given a copy of the consent form for your records. By signing this document, you consent to participate in the study.

Participant Signature _____Date _____

Participant Name (printed) _____

Principal Investigator Signature_____ Date_____

Principal Investigator Name (printed) _____

APPENDIX B

Interview Protocols

Teacher Interview Protocol

The following protocol will be used for the teacher/staff interview:

Date:

Time:

Place:

Interviewer:

The following statement will be read to each interviewee:

This interview is being conducted for the purpose of research. R D W was chosen because of the unusually high number of NBCTs here and I am interested in learning the impact that has had on your school. Information obtained during this interview will be analyzed and included in the findings of this study. This interview will be recorded once your verbal consent is given.

Begin recording: Do you consent to the recording of this interview? I will ask you a series of questions. Please feel free to make additional comments if you feel they will enhance the answers to the questions.

Interview Questions: **Interview Questions will be asked based on the NBC status of the teachers interviewed:**

National Board Certified Teachers/staff	**Non-National Board Certified Teachers/staff**
1. How many years have you been teaching? 2. How long have you been at this school? 3. Are you National Board-Certified? 4. How long have you had certification? 5. Why did you decide to earn National Board certification? Did you earn it before or after you began working at this school? 6. What supports were provided by your school district to assist in the application process? 7. What components would you describe as essential to a positive school climate? 8. Describe the greatest challenges facing your school. And how you see them impacting the school's climate.	1. How long have you been teaching? 2. How long have you been at this school? 3. Have you ever considered applying/applied for National Board certification? 4. What components would you describe as essential to a positive school climate? 5. Describe the greatest challenges facing your school and how you see them impacting the school's climate. 6. Describe which teacher roles in your opinion have the greatest impact on school climate. Why do you believe those roles are most significant?

9. Describe which teacher roles in your opinion have the greatest impact on school climate. Why do you believe those roles are most significant? 10. Did your teaching change as a result of the NBC application process? In what ways? 11. Have your responsibilities changed as a result of achieving NBPTS certification? How? 12. What impact does your NBPTS certification have on teachers who are not NBPT certified? 13. Do you see changes in how your principal perceives you and your role in the school since you have gained NBPTS certification? 14. How would you describe the climate of this school? 15. Describe how National Board certification helps develop teacher and inter-relationships. 16. Have the NBPTS application process and certification experience changed your behavior as a "team player" i.e., collaborating with colleagues to improve the school and help individual students? 17. Do NBCTs serve in leadership roles? If so, how? What perspectives do they offer to their colleagues in this role? 18. Have you worked with colleagues on any school level issues of teaching and learning since achieving NBPTS certification? If yes…please describe. 19. How has the number of NBPTS certified teachers in this school had an impact on the climate of this school? 20. What has been the community's response to the idea of paying for NBC for its teachers? 21. Describe the school factors that you believe would further support improvements in/maintenance of your school's climate	7. What impact does NBCTs have on teachers who are not NBPTS certified? 8. Describe how National Board certification helps develop teacher and inter- relationships. 9. If NBCTs serve as mentors to other teachers, how does their role as a mentor influence school climate? 10. Do NBCTs plan or lead school-wide staff development? If so, how has this impacted your school's climate? 11. Do NBCTs influence your school's ability to recruit and retain high-quality teachers? How? 12. Do NBCTs serve in leadership roles? If so, how? What perspectives do they offer to their colleagues in this role? 13. How has the number of NBPTS certified teachers in this school had an impact on the climate of this school? 14. Can you describe some of the collaborative practices here? 15. Have you worked with NBC colleagues on any school level issues of teaching and learning? If yes…please describe. 16. Has having a critical mass of NBCT teachers in the school allowed you as a teacher to more effectively engage in collaborative work toward the kind of instruction advocated by the NBPTS? 17. Do you see NPBTS status attainable by all teachers? Is it an important goal for a school system to employ as many NBPTS certified teachers as possible? 18. How has the number of NBPTS certified teachers in this school had an impact on the climate of this school? 19. what has been the community's response to the idea of paying for NBC for its teachers 20. Describe the school factors that you believe would further support improvements in/maintenance of your school's climate.

22. What else do you want to tell me about the National Board certification influence at your school?	21. What else do you want to tell me about the National Board certification influence at your school?

Thank you for your participation. Do you have any questions or comments before the taping ends?

Administrator Interview Protocol

The following protocol will be used for the administrator interview:

Date:

Time:

Place:

Interviewer:

The following statement will be read to each interviewee:

This interview is being conducted for the purpose of research. R D W was chosen because of the unusually high number of NBCTs here and I am interested in learning the impact that has had on your school Information obtained during this interview will be analyzed and included in the findings of this study. This interview will be recorded once your verbal consent is given.

Begin recording: Do you consent to the recording of this interview? I will ask you a series of questions. Please feel free to make additional comments if you feel they will enhance the answers to the questions.

Interview Questions:

1. Does this school district encourage teachers to apply for NBPTS certification?
2. *If Yes:*
    a. How are teachers encouraged?
    b. Are all teachers encouraged or just selected teachers?
    c. Are there any common characteristics that are shared by teachers who apply for NBPTS certification?
    d. Why is it important for this district to encourage NBPTS certification?
    e. What support is there for applicants during the application process?
    f. Are there incentives for teachers to apply?
    g. What rationale have you used with your school committee for allocating resources to teachers who are applying for, or to those who have achieved NBPTS certification?

3. What is your role in encouraging NBC in your building?
4. Have any teachers applied for NBPTS certification without district/school encouragement?
5. Does the school district provide a salary differential for teachers who have achieved NBPTS certification?
6. What impact does having NBPTS certified teachers have on your school?
7. Other than being assigned, do NBPTS certified teachers in your school assume responsibilities that are any different than teachers with similar experiences who are not NBPTS certified? If yes, what are some examples of these responsibilities?
8. What impact, if any, does the NBPTS application process have on the typical functions of a teacher?

9. What impact does having NBPTS certified teachers have on teachers who are not NBPTS certified?
10. Do you believe that having NBPTS certified teachers can change the climate of a school? Explain.
11. If all resources needed were available, would you encourage all teachers to pursue NBPTS certification? Why? Describe the climate of RDW in relation to teacher inter-relationships.
12. If NBCTs serve as mentors to other teachers, how does their role as a mentor influence school climate?
13. Do NBCTs plan or lead school-wide staff development? If so, how has this impacted your school climate?
14. Do you see NBCTs as leaders in developing and maintaining a positive climate If so, how?
15. Describe the school factors that you believe would support improvements in/maintenance of your school's climate.
16. What else do you want to tell me about the National Board certification influence at your school?

Thank you for your participation. Do you have any questions or comments before the taping ends?

Appendix C

OHI-E

Instructions for Administering the OHI-RE

Thank you for agreeing to participate in the Organizational Health Inventory Elementary Version. The OHI-E is a survey about the climate of your school, and it should take about 10 minutes to complete. If you have any questions, please do not hesitate to contact me. My information appears below.

1. This survey is being done for a study titled The Effects of National Board certification on School Climate: Perceptions of Teachers, staff, and administrators. This study is for the dissertation of Carolyn Headley, a doctoral student at East Stroudsburg University.

2. Please do not write your name or any other personally identifying information on this survey.

3. Your responses on this survey are completely anonymous.

4. Please read the following statements and fill in the circle under RO for Rarely

Occurs, SO for Sometimes Occurs, O for Often Occurs, and V for Very Frequently

Occurs.

5. Please be sure to respond to all 37 items. Also, note that there is a front and back side to this survey.

7. When you are finished with this survey, please return to me.

Thank you very much for your help!

Sincerely,

Carolyn Headley

Lyn164life@aol.com

(484) 892-5411(cell)

(610) 838-8373 (home)

Organizational Health Inventory (OHI-E)

Rarely Occurs - RO

Sometimes Occurs - SO

Often Occurs - O

Very Frequently Occurs- VFO

1. The principal explores all sides of topics and admits that other opinions exist. **RO...SO...O...VFO**

2. The principal gets what he or she asks for from superiors. **RO...SO...O...VFO**

3. The principal discusses classroom issues with teachers. **RO...SO...O...VFO**

4. The principal accepts questions without appearing to snub or quash the teacher. **RO...SO...O...VFO**

5. Extra materials are available if requested. **RO...SO...O...VFO**

6. Students neglect to complete homework. **RO...SO...O...VFO**

7. Students are cooperative during classroom instruction. **RO...SO...O...VFO**

8. The school is vulnerable to outside pressures. **RO...SO...O...VFO**

9. The principal is able to influence the actions of his or her superiors. **RO...SO...O...VFO**

10. The principal treats all faculty members as his or her equal. **RO...SO...O...VFO**

11. The principal goes out of his or her way to show appreciation to teachers. **RO...SO...O...VFO**

12. Teachers are provided with adequate materials for their classrooms. **RO...SO...O...VFO**

13. Teachers in this school like each other. **RO...SO...O...VFO**

14. Community demands are accepted even when they are not consistent with the educational program. **RO...SO...O...VFO**

15. The principal lets faculty know what is expected of them. **RO...SO...O...VFO**

16. Teachers receive necessary classroom supplies. **RO...SO...O...VFO**

17. The principal conducts meaningful evaluations. **RO...SO...O...VFO**

18. Students respect others who get good grades.

RO...SO...O...VFO

19. Teachers feel pressure from the community.
RO...SO...O...VFO

20. The principal's recommendations are given serious consideration by his or her superiors.

RO...SO...O...VFO

21. The principal maintains definite standards of performance. **RO...SO...O...VFO**

22. Supplementary materials are available for classroom use. **RO...SO...O...VFO**

23. Teachers exhibit friendliness to each other. **RO...SO...O...VFO**

24. Students seek extra work so they can get good grades. **RO...SO...O...VFO**

25. Select citizen groups are influential with the board. **RO...SO...O...VFO**

26. The principal looks out for the personal welfare of faculty members. **RO...SO...O...VFO**

27. Teachers express pride in their school. **RO...SO...O...VFO**

28. Teachers identify with the school. **RO...SO...O...VFO**

29. The school is open to the whims of the public. **RO...SO...O...VFO**

30. A few vocal parents can change school policy. **RO...SO...O...VFO**

31. Students try hard to improve on previous work. **RO...SO...O...VFO**

32. Teachers accomplish their jobs with enthusiasm. **RO...SO...O...VFO**

33. The learning environment is orderly and serious. **RO...SO...O...VFO**

34. The principal is friendly and approachable. **RO...SO...O...VFO**

35. There is a feeling of trust and confidence among the staff. **RO...SO...O...VFO**

36. Teachers show commitment to their students. **RO...SO...O...VFO**

37. Teachers are indifferent to each other.

RO...SO...O...VFO

THE ITEMS THAT COMPOSE THE FIVE SUBTESTS OF THE OHI-E

Institutional Integrity Items ***OHI -Questionnaire item #***

1. The school is vulnerable to outside pressures.* (8)
2. Teachers feel pressure from the community.* (19)
3. A few vocal parents can change school policy* (30)
4. The school is open to the whims of the public.* (29)
5. Community demands are accepted even when they are not consistent with the education program. * (14)
6. Select citizens groups are influential with the board.* (25)

Collegial Leadership Items

1. The principal treats faculty as his/her equal. (10)
2. The principal explores all sides of topics and admits that other opinions exist. (1)
3. The principal goes out of his/her way to show appreciation to teachers. (11)
4. The principal is friendly and approachable. (34)
5. The principal accepts questions without appearing to snub or squash the teacher. (4)
6. The Principal looks out for the personal welfare of faculty members. (26)
7. The Principal discusses classroom issues with the teachers. (3)
8. The Principal conducts meaningful evaluations. (17)
9. The Principal lets faculty know what is expected of them. (15)
10. The Principal maintains definite standards of performance. (21)

Resource Influence Items

1. Extra materials are available if requested. (5)
2. Supplemental materials are available for classroom use. (22)
3. Teaches receive necessary classroom supplies. (6)
4. The principal gets what he/she asks for from superiors. (2)
5. Teachers are provided with adequate materials for their classrooms. (12)
6. The principal is able to influence the actions of his/her superiors. (9)
7. The principal's recommendations are given serious consideration by his/her superiors. (20)

Teacher Affiliation Items

1. Teachers exhibit friendliness to each other. (33)
2. Teachers express pride in this school. (27)
3. Teachers in this school like each other. (13)
4. Teachers are indifferent to each other.* (37)
5. Teachers accomplish their jobs with enthusiasm. (32)
6. Teachers identify with the school. (28)
7. Teachers show commitment to their students. (36)
8. There is a feeling of trust and confidence among the staff. (35)
9. The learning environment is safe and orderly. (33)

Academic Influence Items

1. Students respect others who get good grades. (18)
2. Students try hard to improve on previous work. (31)
3. Students seek extra work so they can get good grades. (24)
4. Students neglect to complete homework. (6)
5. Students are cooperative during classroom instruction. (7)

Appendix D

Certificate of Completion

Certificate of Completion

The National Institutes of Health (NIH) Office of Extramural Research certifies that **Carolyn Headley** successfully completed the NIH Web-based training course "Protecting Human Research Participants".

Date of completion: 04/23/2012

Certification Number: 909661

Appendix E

Focus Group Invitation and Protocol

Subject: Focus Group Invitation from Carolyn Headley

Dear Staff:

In order to gain further insight into the impact National Board certification has on school climate you are now being invited to participate in an open discussion focus group.

Please select from the following three sessions:

DATE	TIME	LOCATION
May 23, 2013	8:00AM	Library
May 28, 2013	9:00 AM.	Library
May 29, 2013	8:00 AM.	
Library		

Groups will be formed on a first come, first serve basis and each session will last approximately 45 minutes.

Once again, your help will be greatly appreciated as I continue gathering data for this study.

Thank you in advance for your support,

Carolyn Headley

Doctoral Student

East Stroudsburg University

484-892-5411

Lyn164life@aol.com

Focus Group Protocol

1. What components would you describe as essential to a positive school climate?
2. Could you please describe which teacher roles in your opinion have the greatest impact on school climate? Why do you believe those roles are most significant?
3. Can you describe some of the collaborative practices here?
4. How would you describe the atmosphere here at RDW?
5. Have any of you ever considered applying/applied for National Board certification? Why/why not? Or have you?
6. How well known do you think it is who is NB or how pervasive it is here?
7. Have you worked with NBC colleagues on any school level issues? If yes…please describe.
8. Can you describe what impact, if any, they have as NBCT on the climate of the building?
9. Could you please describe the school factors that you believe would further support improvements in/maintenance of your school's climate?
10. What else do you want to tell me about the National Board certification or its influence at your school?
11. Would you like to share more about the climate here at RDW?

Appendix F

Email request/recruitment to Participants

Email request/recruitment to teachers

Dear Teacher of Robert. D. Wilson Elementary school,

My name is Carolyn Headley. I am a doctoral student in the Education Department at East Stroudsburg University. In April, 2011, I completed the coursework required for partial fulfillment of my Doctoral degree in Educational Leadership and Administration. I am currently preparing the dissertation component of the degree and I am conducting a research study as part of that requirement and I would like to invite you to participate.

In the study I am examining the effects of National Board certification on School Climate. I chose R. D. Wilson because of the large number of board certified teachers on your staff and I am excited to learn of the effect that has on your building. It is a qualitative study to which there are three components. If you decide to participate, you will be asked to complete a survey and meet with me for an interview at a time predetermined and agreed upon by you. The survey should take about 10 minutes to complete and the interviews are approximately 30 minutes in length. The third component involves site observations which will occur with no interruption to your day.

Participation is voluntary and if you agree to participate please respond to this email. Teachers who agree to participate will be given a letter of informed consent prior to the start of the study.

Thanking you in advance for your anticipated cooperation and support.

Carolyn Headley
484-892-5411

Email Request/recruitment to the School District to conduct study

Dear Administrator,

My name is Carolyn Headley. I am a doctoral student in the Education Department at East Stroudsburg University. In April, 2011, I completed the coursework required for partial fulfillment of my Doctoral degree in Educational Leadership and Administration. I am currently preparing the dissertation component of the degree and I am conducting a research study on the effects of National Board certification on School Climate. As part of that requirement, I am seeking a site in which to conduct my research and I chose R. D. Wilson Elementary School because of the large number of board certified teachers on your staff and I am excited to learn of the effect that has on your building.

It is a qualitative study to which there are three components. Participants will be asked to complete a survey during a faculty meeting and meet with me for an interview at a time agreed upon by the participants. The survey should take about 10 minutes to complete and the interviews are approximately 30 minutes in length. The third component involves site observations and will occur with no interruption to the school day.

Participation is voluntary and if you are interested in participating in my study please respond to this email. All participants will be given a letter of informed consent prior to the start of the study.

Thanking you in advance for your anticipated cooperation and support.

Carolyn Headley
484-892-5411
Lyn164life@aol.com

Appendix G

Approval Letter

WESTERN WAYNE SCHOOL DISTRICT
1970C Easton Turnpike, Lake Ariel, Pennsylvania 18436
Telephone: 1-800-321-9973 Web: www.westernwayne.org Fax: (570) 341-1221

The Western Wayne School District will work for excellence... for everyone... in all things...always.

ANDREW FALONK
Superintendent of Schools

CLAYTON S. LACOE III, Ed. D.
Assistant Superintendent

ROSE E. EMMETT
Business Manager

May 1, 2012

Institutional Review Board
East Stroudsburg University
East Stroudsburg, PA 18301

Dear IRB Members,

After reviewing the proposed study, "The Effects of National Board Certification on School Culture and Climate: Teachers' Perceptions", presented by Ms. Headley, a graduate student at East Stroudsburg University, I have granted permission for the study to be conducted at Robert D. Wilson Elementary School.

The purpose of the study is to determine if national board certification affects the climate and culture of the school. The primary activities will be surveys and interviews. No students have been required to participate.

I understand that this study will occur for several months. I expect that this project will end not later than June 2013. Ms. Headley will contact and recruit our teachers and will collect data at Robert D. Wilson Elementary School.

I understand that Ms. Headley will receive consent for all participants, and have confirmed that she has the cooperation of the administration. Mrs. Headley has agreed to provide to my office a copy of all East Stroudsburg University IRB-approved, stamped consent documents before she recruits participants on campus. Any data collected by Ms. Headley will be kept confidential and will be stored in a locked filing cabinet in her home office. Ms. Headley has also agreed to provide to us a copy of the aggregate results from her study.

If the IRB has any concerns about the permission being granted by this letter, please contact me at the phone number listed below.

Sincerely,

C.S. LaCoe, Ed.D

Clayton S. LaCoe III, Ed.D.

CSL/ksf