ABSTRACT

James Lee Argent, AN ANALYSIS OF THE IMPACT OF A TEACHER LEADERSHIP PROGRAM ON THE PERCEPTION OF LEADERSHIP SKILLS (Under the direction of Dr. William Grobe). Department of Educational Leadership, January 2012.

Teacher leadership is mandated in North Carolina through a set of standards and an evaluation instrument. However, no state endorsed development opportunities were available for teachers who did not demonstrate leadership at an adequate level when measured against the evaluation instrument. A consistent, research-based definition of leadership has not been developed. Six themes of leadership (vision-setting, knowledge/ability, influence, ethics, results-oriented/accountability, and collaboration) were found that created a framework for the study.

A large, urban district in North Carolina developed a teacher leadership program. This study sought to examine the effects of a district training program, titled the Institute for Teacher Leaders (ITL), on the leadership behaviors demonstrated by the participating teachers.

The study utilized a survey based on the North Carolina Teacher Evaluation Instrument. The survey collected the ITL participants' perceptions prior to the training and after the training in each of the six themes of leadership. ITL participants' teammates and principals also responded to the survey. Descriptive statistics were compiled and analyzed to determine if there were trends. Fisher's Exact Tests were computed to determine if there were significant relationships between ITL participants' perceptions prior to the training and after the training. Fisher's Exact Tests were also computed to determine if there were significant relationships between the ITL participants' perceptions and their teammates' and principals' perceptions.

Although there were no significant relationships found, descriptive data did show trends of increased leadership abilities in each of the six themes. Additional research needs to be conducted to determine the impact of leadership training on the abilities of teachers.

AN ANALYSIS OF THE IMPACT OF A TEACHER LEADERSHIP PROGRAM ON THE PERCEPTION OF LEADERSHIP SKILLS

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AN ANALYSIS OF THE IMPACT OF A TEACHER LEADERSHIP PROGRAM ON THE PERCEPTION OF LEADERSHIP SKILLS

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CHAPTER 1: INTRODUCTION TO THE STUDY

The federal commission report *A Nation at Risk* (1983) had a "profound impact on the way the nation thinks about educational policy" (Louis, Febey, & Schroeder, 2005, p. 177). This report led to reform efforts and policies designed to improve education through its call for rigorous content, higher standards, and teacher regulations (Louis et al., 2005). In 2001, after nearly two decade of educational reform, The Elementary and Secondary Education Act (ESEA) mandated student achievement benchmarks for all students on a standardized curriculum and assessments and led to a questioning of teacher roles (Valli & Buese, 2007). More recent reform efforts, such as the federal Race to the Top grants, focus on teachers' roles. In fact, the executive summary for *Race to the Top Executive Summary* (United States Department of Education, 2009) included incentives for states that implemented programs and policies to develop "great teachers and school leaders" (p. 9). The impact of these incentives was that states that developed policies or standards that were targeted towards efforts to improve teaching received increased funding from the federal government.

Many states have created new policies, evaluation systems, and preparation programs for teacher leaders. These policies follow on the footsteps of the national school reform policies. For example, the Teacher Leadership Exploratory Consortium (2011), which included Kentucky, Ohio, Delaware, Alabama, and Kansas, created the *Teacher Leader Model Standards* which defined teacher leadership as "the process by which teachers…influence their colleagues, principals, and other members of the school community to improve teaching and learning practices with the aim of increased student learning and achievement" (p. 10). This project led to the development of a new teacher evaluation systems for the five states. Illinois has created a Teacher Leader Endorsement that state universities may offer (Illinois Board of Higher

Education, Retrieved from http://www.ibhe.state.il.us/SchoolLeadership/Meeting1031/EndorsementSummary.pdf). The Los Angeles Unified School District (Retrieved from http://notebook.lausd.net/portal/page?_pageid=33, 215966&_dad=ptl&_schema=PTL_EP) created a teacher leadership certification program that resulted in college credits and a certification. Finally, North Carolina developed new standards and evaluation system for superintendents, principals, and teachers with a stronger emphasis on teacher leadership.

At the same time, there was growing interest in reexamining the roles of teachers. For years, teaching had been done in isolation and was more likely to involve routine tasks of lecturing and worksheets (Valli & Buese, 2007). However, since ESEA standardized assessment mandates, teachers' expectations are changing. In fact, Valli and Buese (2007) observed that "changes in expectations for teachers' roles have been particularly striking over the two decades of educational reform that led to high stakes accountability" (p. 519). These expectations and external forces from the standardized testing movement led to a change in teacher roles (Dufour & Eaker, 2008). In an effort to increase student achievement for all students, teachers were asked to evolve and work more collaboratively (Muijs & Harris, 2003). For example, the 2009-2010 North Carolina School Improvement Planning Implementation Guide published by the North Carolina Department of Public Instruction (2009a) dictates that the School Improvement Process (SIP) should implement "distributed leadership and collaboration among a team to help drive improvement" (p. 16). In an effort to increase collaboration and bring about school improvement, educators have implemented professional learning communities (Childs-Bowen, Moller, & Scrivner, 2000; Dufour & Eaker, 2008). Dufour and Eaker (2008) believed that collaboration as a team and working in a professional learning team is instrumental in impacting student achievement when it "moves beyond dialogue about students to producing materials that

improve instruction, curriculum and assessments for students" (p. 442). As professional learning communities have been implemented, teachers have been expected to assume new roles that required increased collaboration and accountability for all students' learning.

The changing roles of teachers, such as collaboration and increased accountability from a standardized curriculum and tests, have added to the workload of educators. Bailey (2000) suggested, the change in teaching roles had increased the difficulty of the job and they must devote more attention to classroom details while under higher levels of scrutiny. Furthermore, the advent of school improvement required many teachers to focus on leadership responsibilities. Crowther, Kaagen, Ferguson, and Hann (2002) suggested that teacher leadership was a key factor in school improvement facilitating, "principled action to achieve whole-school success" (p. xvii). Teachers have always had opportunities to fulfill leadership roles and contributed to the school community (Silva, Gimbert, & Nolan, 2000). Many of these roles helped assist in maintaining school identity and were not designed to lead change towards improved school and student achievement (Silva et al., 2000). The roles were often formalized teacher leadership roles, such as union representative, mentor and grade chair. Throughout the 1990s, there was a move towards a more informal, collaborative, and distributive leadership that focused on student achievement (Silva et al., 2000; Smylie, Conley, & Marks, 2002). More recently, Valli and Buese, (2007) contend that because teachers are under more scrutiny, their roles have increased, intensified, and expanded. Furthermore, the increased scrutiny has led to additional out of classroom duties, particularly in teacher leadership roles (Valli & Buese, 2007).

In spite of the growing interest in more collaborative teacher leadership roles, it is interesting to note that the policy appears to be ahead of the research. York-Barr and Duke (2004) noted that the research is mixed concerning the relationship between teacher leadership

and improved student achievement. Some research has found positive effects of teacher leadership at the school level with increased levels of school climate and sharing of best practices (Taylor & Bogatch, 1994; York-Barr & Duke, 2004). There are far fewer that show classroom level effects on student achievement (York-Barr & Duke, 2004).

Improving teacher leadership as a strategy for increased student achievement appeared to be based more on promise than proven results. York-Barr and Duke (2004) articulated the high expectations for teacher leadership as follows: "The hope for teacher leadership is continuous improvement of teaching and learning in our nation's schools, with the result being increased achievement for every student" (p. 255). With new policies calling for teacher leadership and new evaluation systems to measure it in many states, additional research is needed to inform the practice of teacher leadership and the development of teacher leaders.

Research suggests that the transition to teacher leadership requires administrative support. Crowther et al. (2002) stated, "Where we have seen teacher leadership begin to flourish, principals have actively supported it or, at least, encouraged it" (p. 33). However, some research suggests that transitioning to leadership is not positive and becoming a leader can be difficult (LeBlanc & Shelton, 1997; York-Barr & Duke, 2004). York-Barr and Duke (2004) observed that teachers often missed the collegial relationship with peers and this "loss" could negatively impact their ability and desire to lead. Furthermore, Dozier (2007) found that teachers often reported feeling unprepared for new leadership roles, which led to frustration.

With the new roles and reluctance of some educators to become teacher leaders, it will be important to gain further information on how to effectively develop teacher leaders. Teachers that are being required to increase their leadership skills through policy will have a source for

their professional growth. As Barth (2001) suggested, “Every teacher not only can lead, but must lead, if schools are going to develop into sites where all students learn” (p. 444).

Formal leadership roles continued to be available for teachers. Goldstein (2004) noted, “A variety of education policies increase teachers' leadership responsibility by placing them in such roles as mentors, curriculum developers, peer coaches and researchers” (p. 173). However, some researchers proposed that these new informal teacher leadership roles, such as collaboration, should be embedded in all aspects of the school community for increased student achievement to occur (Barth, 2001; Frost & Durrant, 2003; Fullan, 2007; Neuman & Simmons, 2000; York-Barr & Duke, 2004). The shift from the historical roles to the collaborative and distributed teacher leadership roles will require training and support in order to develop the leadership skills of teachers. In a study through the Center for Teacher Leaders at Virginia Commonwealth University, Dozier (2007) found that teachers recognized that the new roles required a new skill set and felt ill-prepared to fill leadership roles. In order to develop teacher leaders and to catch up to the policy changes, effective, research-based professional development will be necessary to assist teachers and build up these new skills and fulfill these changing roles.

Teacher Leadership in North Carolina

Beginning in 2006, the North Carolina Board of Education created new standards and evaluation systems for superintendents, principals, and teachers, which stemmed from a series of policies that were enacted between 1996 and 2008. In developing new standards and evaluation systems, the State Board of Education created an aligned system for developing teacher leadership skills. The standards created not only expectations that teachers would be teacher leaders, but that principals and superintendents would develop and support teacher leadership. The preface to the *North Carolina Standards for Superintendents* (North Carolina State Board of

Education, 2007b) stated the importance of leadership at all levels of a school system by emphasizing that leadership should be ingrained in all levels of schools, including the classroom. The *North Carolina Standards for Superintendents* (North Carolina State Board of Education, 2007b) also stated "The seven critical standards used as a framework for the North Carolina Superintendent Standards are aligned with the seven standards for school executives adopted by the NC State Board of Education in 2006" (p. 2). Furthermore, there is alignment between the *North Carolina Standards for School Executives* (2007c) and the *North Carolina Standard for Teachers;* because principals are responsible for developing teacher leaders and teachers are held accountable for developing their leadership skills. The three sets of standards create an aligned system for developing leadership throughout school districts.

Professional Standards and Evaluation Systems

Superintendents

The *North Carolina Standards for Superintendents* (North Carolina State Board of Education, 2007b) placed a responsibility on the superintendent for developing leaders. The preface stated, "The successful work of the new executive will only be realized in the creation of a culture in which leadership is distributed and encouraged with teachers and others" (p. 1). Standard One of the *North Carolina Standards for Superintendents* (North Carolina State Board of Education, 2007b), Strategic Leadership, stated "an effective superintendent creates practices to distribute leadership throughout the district" (p. 3). Standard Four: Human Resources Leadership stated that a superintendent practices effective human resource leadership when he or she "creates processes for educators to assume leadership and decision-making roles" (p. 4).

Principals

The *North Carolina Standards for School Executives* (North Carolina State Board of Education, 2007c) aligned with *North Carolina Standards for Superintendents* (North Carolina State Board of Education, 2007b). The expectations for principals appear to have an even stronger focus on developing leadership among teachers than do the Standards for Superintendents. The principal works with teachers daily, which provides increased interactions with teachers and opportunities to develop leadership skills. The introduction to the *North Carolina Standards for School Executives* (North Carolina State Board of Education, 2007c) emphasized the importance of developing teacher leadership skills when it stated that the success of principals is predicated on the development of a culture that utilizes distributed leadership. Furthermore, to earn a "Distinguished" rating in the Principal Evaluation Process, principals must use distributive leadership to develop leadership skills and allocate decision-making tasks to staff. There are seven standards for principals. There are explicit references to developing or distributing leadership for staff members in five of the seven standards.

Teachers

Perhaps the most significant shift toward developing teacher leadership skills is reflected in the new standards and evaluation system for teachers. Although the previous teacher evaluation process had not addressed teacher leadership, the previous *Core Standards for the Teaching Profession* (North Carolina State Board of Education, 2002) had addressed leadership in Standard Four under the heading "Teachers Are Leaders." The new *North Carolina Professional Teaching Standards Commission* (2007) placed more emphasis on teacher leadership. The first standard was titled "Teachers Demonstrate Leadership." It included teacher leadership descriptors that described a variety of leadership roles teachers were expected to fill in

classrooms and throughout the school community. In addition, the new teacher evaluation instrument tracked the standards and assessed the degree to which teachers' demonstrated leadership in five areas: Teachers lead in the classroom, Teachers demonstrate leadership in the school, Teachers lead the teaching profession, Teachers advocate for schools and students, and Teachers demonstrate high ethical standards (North Carolina Department of Public Instruction, 2007b).

The NC Department of Public Instruction provided a limited amount of training to support the implementation of the new standards and evaluation system for teachers. Training was provided for teachers and principals. However, the training was on implementation of the standards and evaluation instrument. The North Carolina Department of Public Instruction did not provide training on the development and support of teacher leadership.

Developing Teacher Leadership

In North Carolina, becoming a teacher leader is largely the responsibility of individual teachers. Teacher preparation programs, advanced degree programs, The North Carolina Teachers' Academy, North Carolina Center for the Advancement of Teaching (NCCAT), and the National Board for Professional Teaching Standards certification, offered a variety of programs to support teachers in their professional development, and a number of these focused directly on leadership. For example, programs designed to support teachers' efforts to achieve national board certification would be helping teachers to demonstrate leadership in their classroom. While principals and other administrators could suggest that a teacher participate in one of these professional development opportunities, they could not require teachers to participate in any of these programs. Teachers would have to choose to participate and use their own resources, including time. While some opportunities were available for teachers interested in developing

their leadership skills were available, additional training was needed. Crowther et al. (2009) noted the importance of training principals to create and develop systems to support and nurture teacher leaders. York-Barr and Duke (2004) noted that training was necessary for teachers in three phases (pre-service teachers, novice teachers, and on-going development for experienced teachers) in order to respond to unique interests and needs and support the continuing development of teacher leaders.

Statement of the Problem

The new evaluation system expected teachers to demonstrate leadership and principals to develop and work with teacher leaders, but it was not clear how teacher leaders would develop the expected leadership skills. The North Carolina State Board of Education defined teacher leadership when they adopted a new set of professional standards for teachers and a new evaluation system for measuring the performance of teachers against those standards. Although the North Carolina Department of Public Instruction created training to support the implementation of the evaluation system, and other professional groups in the state provide some training opportunities to develop leadership skills, no development opportunities were available specifically for teachers who did not demonstrate leadership at an adequate level when measured against the evaluation instrument. Furthermore, the existing research base did not provide consistent guidelines on how to prepare and develop teacher leaders who were expected to contribute to increased student, school, and district achievement. The lack of training designed to prepare and develop teacher leaders, despite the emphasis in the evaluation system created a problem for North Carolina teachers who needed to develop teacher leadership skills and principals who needed to develop, support, and involve those teacher leaders. Research was needed to explore how teacher leadership could be developed in meaningful ways.

Purpose of the Study

The purpose of this study was to examine the effects of a district training program for teacher leaders on the leadership behaviors demonstrated by the participating teachers. The study examined how the leadership behaviors demonstrated by teachers who participated in a district training program changed after completion of the program.

Research Questions

This study addressed three research questions:

1. To what extent did teachers who participated in the Institute for Teacher Leaders have a positive perception of their ability to lead on their team and in their school?
2. To what extent did teammates of participants in the Institute for Teacher Leaders believe that the participants had positive leadership qualities?
1. To what extent did principals of participants in the Institute for Teacher Leaders believe that the participants had positive leadership qualities?

Context of the Study

Prior to the implementation of the new *North Carolina Teaching Standards*, one district in North Carolina had implemented a training initiative designed to increase leadership skills for a small group of teachers. This study examined the effects of that program.

Demographics of the District

The district chosen for the study is a large, urban, public, school district in central North Carolina. The district served approximately 143,000 students in one hundred and three elementary schools, thirty-two middle schools, twenty-four high schools, and four special/optional schools.

District Training Program

The district training program, the Institute for Teacher Leaders (ITL), was developed and presented by the district's Office of Professional Development (OPD). Cohorts of fifteen to twenty teachers, nominated by their principals and representing schools throughout the district, participated in a series of leadership development activities that spanned two years. The ITL began during the 2005-2006 school year and ended in the 2009-2010 school year. Four cohorts of teachers participated in the program and participants in Cohorts III and IV were the teachers who participated in the study.

Methodology

Survey methods were used in this study to evaluate the effects of the Institute for Teacher Leaders. The survey addressed the five elements included in *Standard One: Teacher as Leader*, of the new *North Carolina Evaluation Instrument* (North Carolina State Board of Education, 2007d). Participants in Cohorts III and IV of the Institute for Teacher Leaders, their professional learning community (PLC) teammates, and their supervising principals completed the survey. Descriptive statistics were used to describe patterns observed in the data. A series of Fisher's Exact Tests were used to determine whether a relationship existed between the ITL participants' perception of their leadership abilities prior to their training and after their training. Fisher's Exact Tests were also used to determine whether there were relationships between the ITL participants' perceptions of their leadership abilities and the perceptions of their teammates and supervising principals.

Professional Significance of the Study

This research study had the potential to add to the research base and increase the understanding of how teacher leadership is developed. There were three primary areas of

significance. First, some research suggested that there was a lack of a consistently employed definition of a teacher leader (Muijs & Harris, 2003; York-Barr & Duke, 2004). This study found six traits of teacher leaders that could support the development of a research based definition or understanding of necessary skills for teacher leaders. Second, this study examined a teacher leadership development program and the perceptions of leadership skills before and after the training program. In an article from the National Comprehensive Center for Teacher Quality (2010), the authors listed seventeen strategies to enhance teacher leadership. The strategies were developed after a review of literature. The authors concluded that two strategies were creating leadership development programs and improving existing teacher leadership programs. The report noted it was especially important with the increase in teacher accountability for student learning measured by standardized assessments. This study could give insight into professional development program could give insight into appropriate professional development programs. Finally, six traits of leadership from research were used to organize the review of literature and research and to develop the surveys that were used in the study. This framework could be used as a tool for further research.

Assumptions of the Study

The study identified three assumptions. First, this study utilized a survey research design that relied on teacher self-reported data. It was assumed that respondents would truthfully and accurately answer the survey. However, Babor and Del Boca (1992) noted that even though the validity of self-report data is occasionally questioned, research supports that it provides accurate data. They also noted that two issues impacting the validity of self-reported data are 1) how sensitive the requested information is and 2) the "characteristics of the respondents." Although the characteristics of the respondents could not be determined for this research study, the data

were not highly sensitive, which leads to the assumption of accurate and truthful responses from participants. Participants were notified that the survey was confidential, individual results would not be shared, and appropriate data storage methods were utilized. Second, the study assumed the ITL participants would be able to answer the survey concerning their perceived leadership ability before taking the coursework. The survey was given after the completion of the program. Some survey items asked about experiences that occurred as long as three years prior to the survey completion. Finally, the study design assumed that participating teachers, their principals, and their teammates possessed the knowledge to respond accurately to the survey.

Limitations of the Study

There were limitations to the study. First, participating teachers completed the Institute for Teacher Leaders before the study took place. The survey of participants was completed one to three years after participants had completed the Institute for Teacher Leaders. Participants were asked to complete the survey based on what they remembered about the professional development activities. Therefore, responses may not be accurate. Second, the teachers who participated in the Institute for Teacher Leaders were selected by their principals because they demonstrated leadership skills and many were already filling formal and informal leadership roles in the school. Therefore, it will be difficult to determine the extent to which the teachers already excelled at leadership prior to taking the coursework or developed leadership skills as a result of the program. A third limitation is that it was not possible to determine how demonstrated growth in leadership skills occurred. Teacher experiences, culture of the school, and the supervision of the principal are among the many factors that could support the leadership development of teachers. It will not be possible to determine if growth was a result of the Institute of Teacher Leaders or other factors.

Definitions of Key Terms

For the purpose of this study, the following items were defined:

1. Teacher leader – Full-time classroom teachers currently in leadership roles within their assigned schools who wish to remain in the classroom and have the skills needed to lead and support school improvement within a learning community (Wake County Public School System, 2009).
2. Teammates – teachers who participate in a Professional Learning Community (PLC) with the teacher leaders who participated in the Institute for Teacher (DuFour & Eaker, 2008).
3. Professional Learning Community – a group of teachers in an individual school community who work interdependently and collaboratively to study data and to improve teaching and student learning. Furthermore, a PLC works with a common set of students. For example, a grade level team, a content area team, or an intervention team that works with similar students would be considered a PLC (DuFour & Eaker, 2008).
4. Institute for Teacher Leaders – a cohort-model professional development series offered by a large urban school district in North Carolina and designed to increase the leadership abilities of participating teachers (Wake County Public School System, 2009).

Summary

This chapter introduced a study of the effects of a district training program for teacher leaders. The context, participants, and methods were described briefly. Possible implications of the study were identified. These concepts were explored more deeply in Chapter 2, the Literature

Review, and Chapter 3, the Methodology. Findings of the study were presented in Chapter 4. Conclusions and recommendations were discussed in Chapter 5.

CHAPTER 2: LITERATURE REVIEW

The purpose of this literature review was to synthesize the literature, research, and policy on teacher leadership. First, a brief overview of the organizational format for the review was presented. Second, an understanding of leadership was explored. Third, the emergence of teacher leadership was examined. Fourth, the need for further research was discussed.

Organizational Framework for Review of the Literature

The literature showed that definitions of leadership were not consistent and changed over time (Jago, 1982; Leithwood & Duke, 1999; Muijs & Harris, 2003; Rost, 1991; York-Barr & Duke, 2004). To begin the literature review, an initial search of leadership from prominent researchers and practitioners from the fields of business and management, military, athletics and education was performed. John Maxwell, Robert Greenleaf, Peter Senge, Keith Leithwood, Jim Collins, Peter Drucker, Bernard Bass, John Kotter and Thomas Sergiovanni were chosen. Their descriptions, lists, and definitions were reviewed for key words and phrases (see Table 1). Next, a text by Rost (1991) was reviewed that offered definitions of leadership over time throughout the 20th Century (see Table 2). Next, the *North Carolina Teacher Evaluation Instrument Rubric* was studied for key words (see Table 3). Finally, two comprehensive syntheses on teacher leadership were reviewed. The two syntheses led to additional sources for definitions. In spite of the differences among the definitions, six themes emerged, which organized the review. The six themes were vision-setting, results-oriented/accountability, influence, knowledge/ability, ethics, and collaboration. Although six themes emerged, these were not the only traits or behaviors that helped define leaders. There were often a wide range of inconsistencies amongst leaders when viewing leadership traits (Gibb, 1947; Jago, 1982; Stodgill, 1974). In a literature synthesis, Jago (1982) listed thirty-nine factors of leaders that have

Table 1

Key Researchers and Practitioners Thoughts on Leadership

Researcher	Contributions
Bernard Bass (2008)	Created a hierarchy of leadership styles that ranged from hands-off and avoiding interaction to transformational styles that focusing on followers needs, influencing others, and building shared visions.
Jim Collins (2001)	Developed the term Level Five Leader which focuses shared power and collaboration for a vision, results, and accountability that results in what is best for the organization.
Peter Drucker (2006)	Believed in leading through integrity, mission building, developing trust, and focusing on results.
Robert Greenleaf (1998)	Articulated term servant leaders that serve others to build trust and achieve results through ethical means.
John Kotter (1987)	Formed leadership philosophy that was grounded in developing and producing towards a vision with ethical results and anchoring the results in new behaviors for the organizational culture.
Keith Leithwood (Leithwood & Duke,1999; Leithwood & Jantzi, 2000)	Constructed belief that teacher leaders exert influence, have knowledge and produce results. Also, leaders believe that setting a vision is foundational skill and must hold others accountable to the vision.
John Maxwell (2007)	Maxwell created a list of twenty-one laws of leadership that included vision-setting, accountability, influence others, collaborating, and ethics.
Peter Senge (2006)	Believed that a leader need to work within the "Fifth Discipline" which included high levels of knowledge and wisdom, ability to set a clear vision, and being able to collaborate.
Thomas Sergiovanni (1996)	Worked under the premise that relationships and trust are instrumental to effective leadership.

Table 2

Leadership Over Time

Decade	Leadership Focus
1920s	The leadership ability to exert his will and attain compliance
1930s	The leader sets the direction and organizes the activities that the followers undertake
1940s	Leadership is determined not through power or prestige, but through the ability to persuade or direct men
1950s	Leadership and authority is earned and given by fellow group members
1960s	The leader helps build a shared direction and influences others to move towards that direction
1970s	The leader exerts influence and leadership situationally based on the needs of the organization or follower.
1980s	A leader is inspirational and the purposeful action of the organization is determined by the leader.
1990s	The leader builds relationships and influences others towards a mutual vision. Leaders and followers develop agreements and collaborate towards the mutual vision.

Note. Adapted from Rost (1991).

Table 3

Five Elements of Teacher Leadership from the North Carolina Teacher Evaluation Instrument

Element/Title	Themes
A. Teachers Lead in their Classroom	Communicates Vision (VS) Evaluates Progress (RO) Creates Classroom (C) Encourages Students responsibility (I) Uses Classroom (K/A) Empowers and Encourages safe environment (K/A)
B. Teachers Demonstrate Leadership in the School	Assumes a leadership PLT (RO) Collaborates school improvement (C) Collaborates improve learning (C) Assumes leadership SIP (RO)
C. Teachers Lead the Teaching Profession	Promotes positive collaboration(C) Promotes positive professional growth (I) Seeks opportunities decision-making(RO) Seeks opportunities professional growth (I)
D. Teachers Advocate for Schools and Students	Developing Policies (VS) Participates in implementing (K/A) Promotes implementation (I) Provides evidence (I) Positive change (VS)
E. Teachers Demonstrate High Ethical Standards	Knows ethics (E) Upholds ethics (E) Models ethics (E) Encourages others (E)
No Element	Creation of Shared Vision

Note: VS = Vision Setting; RO = Results Oriented; I = Influence; K/A = Knowledge/Ability; E = Ethics; C = Collaboration.

been found in the literature. In addition, Jago (1982) pointed out that even though several assessments and techniques are available to measure traits and behaviors related to leadership, most of the relationships are "typically weak, albeit statistically significant. There are far too many exceptions to the general rule" (Jago, 1982, p. 318). Doh (2003) noted that leadership was widespread and had many skills that needed to be developed. However, the six themes emerged and became the organizational basis for the study.

Understanding Leadership

Leadership conversations can be traced back more than two millennia to the ancient Chinese. Confucius stated "To become a leader, you must first become a human being." Furthermore, Lao Tzu (6th Century BC) wrote "By leadership I mean the general's qualities of wisdom, sincerity, courage and strictness. Lao Tzu also declared, "A leader is best when people barely know he exists, when his work is done, his aim fulfilled, they will say: we did it ourselves" and "To lead, one must follow." The quotes from the ancient Chinese highlight that leadership discussions are not a new trend.

Even though leadership has been discussed for millennia, the understanding of leadership still seemed to be unclear. Researchers from the business community, military, and athletics have continually studied leadership. Despite the depth and breadth allotted to the topic of leadership, ambiguity still existed in defining the term leadership. Stodgill (1974) stated, "There are almost as many definitions of leadership as there are persons who have attempted to define the concept" (p. 259). Jago (1982) contended that "although thousands of empirical investigations of leaders have been conducted in the last seventy-five years, no clear and unequivocal understanding exists as to what distinguishes leaders from non-leaders and, perhaps more importantly, what distinguishes effective leaders form ineffective leaders" (p. 315). Additionally, Joseph Rost

(1991) charged, leadership studies cannot progress unless there is a shared definition of leadership (p. 6-7). Druckman, Singer, and Van Cott (1997) stated in a special report of the National Research Council, "the leadership literature is full of ambiguous theory and contradictory research" (p. 98). Zaccaro and Klimoski (2001) observed, "Leadership has been a major topic of research in psychology for almost a century and has spawned thousands of empirical and conceptual studies. Despite this level of effort, the various parts of this literature still appear disconnected and directionless" (Zaccaro & Klimoski, 2001, p. 3). As Senge (2006) pointed out, "The very word 'leader' has come to refer largely to positional authority, a synonym for top management … that message is that only people with power to bring about change are those at the top of the hierarchy, not those further down. This represents a profound and tragic confusion" (Senge, 2006, p. 319).

The understanding of leadership was also compounded by changes over time (Ciulla, 1995; Rost, 1991). Historically, the perception of leaders was to embody the concept of having subordinates perform tasks in an unwavering and completely committed fashion (Ciulla, 1995; Druckman et al., 2007; Rost, 1991). For example, Connelly (2002) quoted General Robert Patton, in a letter to his son, defining leadership:

> The thing that wins battles, I have it – but I'll be damned if I can define it. Probably it consists in knowing what you want to do and then doing it and getting mad if anyone steps in the way. Self confidence and leadership are twin brothers (p. 130).

This thought process for leadership was similar across many disciplines until the late 20th Century. In the later part of the 20th Century, the focus on how a leader created change became important (Bass, Avolio, Jung, & Berson, 2003; Rost, 1991). Leaders were charged with challenging the status quo and moving organizations forward to continued improvement and

goals. This change was led by the concept of transformational leadership, which created change utilizing moral methods (Burns, 1978). Burns (1978) described transformational leadership as a more ethical and moral style of leadership that transforms the leader and the follower to aspire to increased levels of performance. The transformational leader was different because the leader developed visions, influenced and inspired others to reach the vision (Bass, 2008; Kotter, 1996). Finally, Martin (2007) performed a study for The Center for Creative Leadership on leadership that included 139 survey results from leaders, 389 survey results from respondents on their views of organizational leadership, and a review of every issue of the journal *Leadership Quarterly*, and found that "the definition of effective leadership has changed in the last five years" (p. 1).

Despite the inconsistent and changing definitions of leadership, there remained interest in the research. The six themes of leadership identified from the research served as the organization for the next section of the literature review. The six themes were vision-setting, results-oriented/accountability, influence, knowledge/ability, ethics, and collaboration.

Leadership Theme 1: Vision Setting

Throughout the literature on leadership, there was a strong focus on the need for leaders to be able to create a vision for their organizations (Nanus, 1992; Tichy & Devanna, 1986; Zalenik, 1977). The literature and research on vision-setting in business, the military, and athletics was discussed first. Vision-setting and leadership in education was discussed next.

Business, athletics, and military. Organizational structures often labeled people in positions of authority as managers or leaders. However, managers and leaders are different. According to Zaleznik (1977), managers were problem solvers who created organizational goals to maintain the consistency of the organization, whereas leaders were visionaries who motivated others towards the organization's development and change. Additionally Tichy and Devanna

(1986) stated, “Leaders are responsible for the creation of a vision and the vision provides the basic energy source for moving the organization towards the future” (p. 52). Nanus (1992) felt a key to leadership was in “establishing a vision so compelling that everyone in the organization will want to help make it happen” (p. 13).

Peter Senge (2006), wrote one of the most renowned business leadership texts, *The Fifth Discipline*. In the text, Senge described five critical dimensions to a leader’s success. As Table 4 shows, Senge placed a strong emphasis on setting a vision within the five dimensions. Maxwell (2007) emphasized the importance of vision setting by making it his first “law of leadership”. Furthermore, many researchers noted a primary trait of leaders was not just the ability to create a vision, but more importantly the ability to create and build a shared vision for an organization (Ansbacher, 2008; Bennis & Nanus, 1985; Kotter, 1987; Sternberg, 2003). The ability to create and set a shared vision for organizational success seemed to be an important theme throughout much of the research literature.

Education. Building a vision is referenced in numerous pieces of the literature on educational leadership. For example, Lezotte (1994) wrote:

> Effective schools and districts are led by individuals who have the vision that learning in a democracy must be inclusive – learning for all. Second, these individuals have the ability to communicate this vision to others in the district and in the school so they share the vision and accept the vision and accept the mission of making it happen (pp. 21-22).

Many researchers contend that setting a clear vision and direction was a key component of a leader’s job (Leithwood, Harris, & Hopkins, 2008; Leithwood, Louis, Anderson, & Wahlstrom, 2004; Leithwood & Riehl, 2003). Frost and Durrant (2003) showed the importance of vision setting towards school improvement when they stated, “Vision is taken to be the result of

Table 4

Senge's Five Levels of Leadership

Dimension of Success	Definition
Personal Mastery	Proficiency in content and dedication to lifelong learning
Mental Models	Deeply ingrained values and beliefs that shape our way of thinking
Building Shared Vision	The capacity to hold a shared picture of the future we seek to create
Team Learning	Teams learn better than individuals if the ability to dialogue is mastered
System's Thinking	A leader integrates the other four areas and allows a leader to take a systems view of decision making

Note. Table adapted from Senge (2006).

imagining what could be and what ought to be … and narrow the gap between the vision and the current reality of professional practice" (p. 174). Fullan (2007) contended that an organization "needs both a vision of the nature or content that it represents and a clear vision of the processes it characteristically values and follows" (p. 34). Ansbacher (2008) observed that the ability to build a vision was often noted as something that defines a good school leader.

Much of the research was based on the leader as the sole vision setter as opposed to a more inclusionary type of leadership that involves the building of a shared vision with others. However, Sergiovanni (1996) noted that leaders' visions must be in "invitational mode, not in the command or sell mode" (p. 83). He stated, "moral connections cannot be commanded by hierarchy or sold by personalities, but must be compelled by helping people to accept their responsibilities" (Sergiovanni, 1996, p. 83). Furthermore, Frost and Durrant, (2003) shared that a singular vision imposed from the formalized leadership team cannot lead to true school improvement.

Building a shared vision for a school community was a major portion of the North Carolina Department of Public Instruction (2009a) School Improvement Process (SIP), which noted that all staff members must be involved in creation of the SIP and the vision. However, building a shared vision for a team of teachers is different than the process of creating a vision for a school community. The formalized leaders of a school facilitate the building of a vision for a school community. For a team to create a vision, teacher leaders must emerge. Dufour and Eaker (2008) supported the building of a shared mission, vision, and values as a key tenet of building leadership in a Professional Learning Community team of teachers.

Through the literature, it is apparent that vision-setting is an important aspect of leadership. However, as Peel and McCary (1997) contended, "If organizational leaders develop a

vision in isolation or do not understand their role as communicators of the vision, then its power will not be realized" (p. 698). Therefore, leaders must not only possess the ability to articulate a vision, they must be willing to facilitate processes that allow a school community to build a vision for organizational change.

Leadership Theme 2: Results Oriented/Accountability

Leadership has changed over time. However, all eras and professions utilized results-orientated/accountability as a major skill of a leader. The literature and research on results-orientated/accountability in business, the military, and athletics was discussed first. Results-orientated/accountability in education was discussed next.

Business, athletics, and military. Table 2 showed the evolution of leadership definition over time from Rost (1991). Within all of the definitions provided by Rost (1991) there was a theme of accountability towards results, whether it is directed by authority, influence, or collaboration. Accountability was such a focus for leaders that the governments of all fifty state employed some version of performance based accountability and managing for results (Moynihan & Ingram, 2003). Drucker (2006) also identified focusing on results as one of the five primary traits of a leader. Furthermore, the renewed interest for accountability measures for public entities has spiked in the last decade as external pressures have mounted (Muhittin, Guo, & Yang, 2008, p. 4).

Markland and Martinek (1988) showed that successful coaches provide greater levels of feedback towards goals than less successful coaches. Moreover, effective coaches engaged in positive and constructive criticism (Bloom, Crumpton, & Anderson, 1999; Côtè, Salmela, Trudel, Baria, & Russel, 1995). Côtè et al. (1995) also noted that a level of expertise and emphasis on technical feedback was prevalent in coaching from elite level gymnastic coaches.

Maxwell (2001) noted that developing accountability towards results improved production for an organization. Throughout time, it seems leaders have been held accountable to the organizational results. It also seems that it was a key trait to be able to appropriately hold others accountable to the organizations results.

Education. Performance based accountability measures have changed the way schools are held accountable to results. These changes have made accountability towards student achievement results a key component of a leader. Many researchers believed that a culture of high expectations for all school community members and determination to reach the expectations are traits of effective principal and teacher leaders (Dufour & Eaker, 1998; Fullan, 2001; Marzano, Walters, & McNulty, 2005; Murphy, Elliot, Goldring, & Porter, 2006; Wilson & Corcoron, 1988; York-Barr & Duke, 2004). According to Elmore (2005), effective leaders set a course of action towards a vision and create an environment that has a strong emphasis on high expectations and results and then utilize accountability to hold everyone responsible to the results. Additionally, the Wallace Foundation's Leadership Effectiveness Knowledge Foundation Exploration Committee found that highly effective organizations have an, "ongoing commitment to results" (Murphy et al., 2006). Also, effective leaders ensure that the high expectations and results orientation are clearly defined, regularly communicated, viewed as achievable, transformed into policies, and translated to all members of the school and not just a select few (Murphy et al., 2006).

Some researchers believed that holding others accountable was a key leadership behavior. School leaders who held teachers accountable to goals were more successful in meeting external demands placed by recent state and federal accountability systems (Abelmen, Elmore, Even, Kenyon, & Marshall, 1999; Bryk & Schneider 2002; Leithwood, Steinbach, &

Jantzi, 2002; Murphy et al., 2006). Elmore (2005) shared that schools which created internal accountability, that aligned individual values with expectations and mutual accountability "experienced greater shared decision-making on curricular issues, addressed issues more effectively, and create a culture where teachers view themselves as pursuing valuable goals" (p. 135).

Despite external demands, schools often created their own conception of accountability which frequently defined the internal accountability of the school community (Carnoy, Elmore, & Siskin, 2003). Furthermore, Carnoy et al. (2003) found that most schools, whether public or private, fell into a default mode of accountability which left the accountability measures largely as a function on individual teachers and parents. However, Elmore (2005) created a framework of school accountability and found that highly effective schools have accountability systems that are distributed throughout the school. Furthermore, schools where teachers have individual and collective responsibility for actions have higher levels of accountability which allows for greater levels of school improvement (Abelman et al., 1999; Elmore, 2005).

Accountability often becomes a role of the formal leadership within a school community. As the roles of informal leaders develop, peer accountability will continue to increase in importance. It is important to note that holding peers accountable can be met with resistance from teacher leaders. Darling-Hammond, Bullmaster, and Cobb (1995) found that teachers who are offered formalized leadership roles may be resistant as it may separate them from peers and create a distortion between management roles. Mintrop (2004) noted accountability can have an adverse effect on the work of the school as educators who are held more accountable often view accountability as a restrainer from their actual work they must do. Accountability has often been a part of the formal leader role. Recent policy changes have led to increased peer accountability.

Leadership Theme 3: Influence

Research suggested that the ability to influence others and create lasting change was an important task of a leader. The literature and research on influence in business, the military, and athletics was discussed first. Influence in education was discussed next.

Business, athletics, and military. The research literature included references to influencing others in numerous definitions of leadership. Jago (1982) noted Stodgill's assertion of the many leadership definitions and markedly pointed out that he did not want to merely add to a list of definitions. However, he provided a definition that assimilates the important aspects of the research:

> Leadership is both a process and a property. The process of leadership is the use of non-coercive influence to direct and coordinate the activities of the members of an organized group toward the accomplishment of group objectives. As a property, leadership is the set of qualities or characteristics attributed to those who are perceived to successfully employ such influence. (p. 315)

Others recognized influence as a trait that helped achieve goals. Sternberg (2003) wrote that a leader "who is strong in memory, analytical, and practical skills is most likely to be able to influence others" (p. 388). Maxwell emphasized his beliefs on leadership in his second law: The Law of Influence. Maxwell (2007) subtitled the law, "The true measure of leadership is influence – nothing more, nothing less" (p. 13). He further stated, 'If you don't have influence, you will never be able to lead others" (Maxwell, 2007, p. 13). Finally, Johnson (2009) simply defined leadership as "the ability to influence others in a group context" (p. ix).

Education. Setting a vision and holding others accountable are necessary to move a school community forward. However, individuals can follow a leader on a basic level if they do

not believe in the direction of the leaders. Therefore, influencing others to commit to the direction of the school is a key trait of a leader. Patterson (1993) defined leadership as "the process of influencing others to achieve mutually agreed up on purposes for the organization" (p. 3). Fullan (2001) asserted the importance of teachers to become "change agents" by influencing their peers to progress and make meaningful change towards school improvement. Leithwood and Riehl (2003) juxtaposed building a shared vision and influencing others when they defined educational leadership as "those persons who provide direction and exert influence in order to achieve the schools goals" (p. 9).

Conversely, Hart (1995) contended teacher leadership has maintained consistency over time. Even with reform efforts, distributed leadership, and thoughts of change, teachers still applied influence over others through their "beliefs, actions, and values … they use power to exert control over behavior of others, they are decision makers, and they force compliance with their directives" (p. 11). Hart (1995) further noted that these leadership tasks are consistent with "leadership as power, exchange theory and hierarchical authority and decision theory" (p. 12).

Influence can happen in multiple ways. York-Barr and Duke (2004) noted that teacher leaders used two types of influencing. First, participative leadership stresses decision making in a group context. Second, leadership as an organization quality emphasizes influences on the systems and structures of a school (see Table 5).

Other researchers also noted influencing others as a trait of effective leaders. Leithwood and Jantzi (2000) measured teacher leadership in a survey of 1,818 teachers and 6,940 students in a large Canadian school district by asking "respondents to indicate the extent of influence on the school of teacher leaders acting individually (either in formal or informal leadership roles),

Table 5

Conceptions of Leadership

Conception of Leadership	Characterization	Source
Participative Leadership	stresses the decision-making processes of the group	Leithwood & Duke (1999) p. 51
Leadership as Organizational Quality	leadership must affect more than individuals' actions; it must influence the system in which actions occur	Ogawa & Bossert (1995) p. 233
Distributed Leadership	school leadership is best understood as a distributed practice, stretched over the school's social and situational contexts	Spillane, Halverson, & Diamond (2001) p. 23
Parallel Leadership	encourages a relatedness between teacher leaders and administrator leaders that activates and sustains the knowledge-generating capacity of schools	Crowther et al. (2002) p. 38

Note. Adapted from York-Barr and Duke (2004, pp. 261-262).

and in groups" (p. 417). York-Barr and Duke (2004) performed a comprehensive review of literature from over twenty years that used teacher leadership, shared decision making, and teacher professionalism as key terms in the search. One hundred and forty sources were utilized for the review. In the review, they go a step further by noting that teachers with positive relationships with peers have the greatest ability to influence others within the school community. Finally, Dozier (2007) noted that teachers wanted training on how to use their spheres of influence to impact policy. In order to effectively move an organization towards a vision, it seems a leader must be able to positively exert influence on others.

Leadership Theme 4: Ethics

A study of effective leadership would not be complete without discussing ethics. People can use all other traits of leadership and eliminate ethics and still lead. However, ethical leadership was in the prominent research on effective leadership. The literature and research on ethics in business, the military, and athletics was discussed first. Ethics in education was discussed next.

Business, athletics, and military. In the 1970s, Robert K. Greenleaf developed a style ethical leadership called servant leadership. According to Greenleaf, servant leaders want to serve others. This ethical style of leadership built trust and elevated others to meet the goals of the organization.

Ciulla (1995) believed that researchers did not need to ask what leadership is, but what is good leadership. By asking the correct question, a definition will include the morally and technically good aspects of leadership. Fairholm (2001) noted that the concepts of transactional and transformational leadership are most remembered from the work seminal leadership and transformational leadership are most remembered from the work seminal leadership researcher

James MacGregor Burns. “However, what Burns hoped would be implemented was his general theory of moral leadership” (Fairholm, 2001, p. 3). Thomas, Schermerhorn, and Deinhart (2004) asserted that strategic leadership of ethical behavior must be applied and cannot be ignored (p. 56). Furthermore they utilized the key tenets of Kotter’s framework for transformational change to “discuss how … to confidently pursue change that leads organizations strategically toward sustainable ethical behavior” (Thomas et al., 2004, p. 57). Romar (2004) asserted that Drucker is more like Confucius in his definition of leadership: “Leadership, for them, is individual, situational, and based upon the virtues of responsibility, trust, and integrity” (p. 203). Finally, Johnson (2009) stressed, “The misery caused by unethical leaders drives home an important point: Ethics is at the heart of leadership” (p. xv).

Recent military leadership research emphasized the concepts of character and integrity as an essential leadership trait for military leaders. Barlow, Jordan, and Hendrix (2003) noted that all branches of the United States military list character as a key trait of leaders. They further noted that former Army Chief of Staff Edward Meyer stated, “like carbon to diamond, character is a basic quality of a leader.” Moreover, Bartone (1999) noted that hardiness, or a character sense of commitment, and control that can be closely correlated to transformational leadership styles is a strong predictor of military leadership performance (p. 1).

Education. Educational researchers also prescribe to the importance of ethical leadership. Unfortunately, until the mid-1990s, very few educational leadership programs included ethical leadership in the coursework (Beck & Murphy, 1994). However, that has changed in the past twenty years. Sergiovanni (1994) explained that “moral ties emerge from the duties we accept and the obligations we feel towards others” (p. 54). Shapiro and Stefkovich (2001) argued that educational leaders should be explicitly taught ethical leadership (p. 6). Barth

(2001) combined the importance of morals and ethics with vision-setting by describing vision as "a kind of moral imagination that gives school people, individually and collectively, the ability to see their school not only as it is but also as they would like it to become" (p. 204). Finally, policy is making the emphasis is even greater. For example, the *North Carolina Teacher Evaluation Process* (North Carolina State Board of Education, 2007d) includes a section surrounding the teacher code of ethics within the teacher leadership subsection of the instrument. Unfortunately, the wealth of research on ethical leadership in education revolves around superintendent and principal preparation programs.

Leadership Theme 5: Knowledge/Ability

Some research suggested that effective leaders have a knowledge base or skill set that allows followers to recognize a level of proficiency. Druckman et al. (1997) contended a leader's knowledge and ability to perform various types of activities is a major competency that a leader must possess. The literature and research on knowledge/ability in business, the military, and athletics was discussed first. Knowledge/ability in education was discussed next.

Business, athletics, and military. Peter Senge (2006), pointed out, "Confucius created a developmental theory in terms of 'meditative spaces' of leadership cultivation. These ideas find parallels in wisdom traditions around the world. Indeed, wisdom itself is one of the oldest ideas associated with leadership" (Senge, 2006, p. 318). Although wisdom and knowledge are not synonymous, wisdom is knowing when and how to use the knowledge that has been amassed. Furthermore, Senge (2006) believed that system's thinking, which he called the Fifth Discipline, was the ultimate goal of a leader. The Fifth Discipline required a leader to study, synthesize, and see the big picture pattern that will determine long term success of an organization. Ability and

knowledge allowed a leader to take the information or skills and use them in an effective way that continually moves the organization forward.

Sternberg (2003) created the WICs model which included four components to leadership: wisdom, intelligence, creativity, and synthesis (p. 386). Sternberg (2003) broke down intelligence into three categories: (1) academic intelligence, which constitutes memory and analytical abilities to analyze, evaluate, and judge; (2) practical intelligence, which was the ability to solve everyday problems; and (3) tacit knowledge, which was the knowledge gained from experience (p. 388). Sternberg (2003) further emphasized the importance of wisdom and knowledge to "leadership, because leaders need to be able to retrieve information that was important and analyze and evaluate different courses of action" (p. 387). Finally, Sternberg (2003) asserted, "For wisdom, the first and foremost decision is to use one's intelligence, creativity, and experience for a common good" (p. 397). The WICS model demonstrated the importance of intelligence for a leader as they continually moved an organization towards a vision as different situations and variables arise.

In athletics, peer leaders offered higher level of social support, positive feedback, and democratic behaviors than coaches. Todd and Kent (2004) identified working hard, assisting in practice, and helping with problems as three traits of ideal peer leaders on sports teams. Glenn and Horn (2003), and Moran and Weiss (2005) related ability as a key trait of leadership in athletics. Finally, in military, Hedlund et al. (2003) defined tacit knowledge, knowledge drawn from everyday experience, as a key aspect of military leadership.

Education. In terms of educational leadership, York-Barr and Duke (2004) noted that teacher leaders are highly experienced and respected educators who are known throughout school communities as excellent teachers (p. 267). York-Barr's observation is consistent with the

research from athletics that shows teammates reference outstanding ability as a trait of peer leaders (Glenn & Horn, 2003; Moran & Weiss, 2005). Furthermore, teachers have a greater chance of being perceived as a leader by their peers if they have content knowledge and expertise (Little, 1998; York-Barr & Duke, 2004). Some research shows that formal leaders must also trust a subordinate's intelligence and ability. For principals to distribute leadership, teacher knowledge and expertise is a key trait (Bennet, Wise, Woods, & Harvey, 2003; Copland, 2003). Frost and Durrant (2003) declared that a teacher's ability to engage in professional discourse, knowledge creation, and transfer in the appropriate way with their peers is an essential characteristic of a teacher leader (p. 178). The ability to intellectually stimulate has also been shown as a key component for leadership as teachers work to develop the ability of others (Daly, 2009; Kirby, Paradise, & King, 1992). As schools work to create change and move towards a vision; formal leaders need informal teacher leaders to possess the ability to transfer knowledge to peers.

Leadership Theme 6: Collaboration

A more recent trend in leadership was the ability to collaborate with peers and followers. The literature and research on collaboration in business, the military, and athletics was discussed first. Collaboration in education was discussed next.

Business, athletics, and military. Rost (1991) showed that leadership skills and traits have evolved over time and the ability to lead others now includes collaboration as a key trait. Lipman-Blumen (1996) noted that post-industrial leadership involves more collaborative relationships as opposed to the authoritative leadership styles of the past. Jim Collins (2001), author of *Good to Great,* produced a definition of leadership in terms of a Level 5 leader, which is leader who works primarily for the cause or for the organization and not for themselves. Also,

it is "an individual who builds enduring greatness through a paradoxical blend of personal humility and professional will" (p. 22). This concept brings collaboration into greater focus as a Level 5 leader is consistently partnering with members of an organization. Lately, teamwork and collaboration are seen as key traits of current leaders as leadership roles transform to a more facilitative function (Eagly & Carli, 2003; Senge, 2006). Finally, Eagly and Carli (2003) shared that a recent increase in female leaders can be attributed to the traits of leadership in the current era that includes communication, mentoring, and collaboration. Modern leaders recognize the importance of fully utilizing the collective strengths of individuals to meet an organization's mission, vision, and goals.

Education. In recent years, there has been a trend away from hierarchical models of school leadership toward models that include shared decision-making, teamwork, and community building (Alvaredo, 1997; Wynne, 2001). Leblanc and Shelton (1997) performed a study with teacher leaders where collaboration was recognized as the primary method of how learning was impacted. Furthermore, as Mitchell and Sackney (2000) argued, the development of professional learning communities as a means of collaboration empowers teachers and "people in the school form not just a community of learners but also a community of leaders" (p. 93). Childs-Bowen et al. (2000) described teacher leadership in terms that revolve around school improvement and not as a stepping stone to administration. They stated, "We believe teachers are leaders when they function in professional learning communities to affect student learning, contribute to school improvement, inspire excellence in practice, and empower stakeholders" (Childs-Bowen et al., 2000, p. 28). Harris and Muijs (2003) defined teacher leadership as the ability to form collaborative groups where teachers develop expertise and are empowered to lead and impact the quality of teaching and learning (p. 39). Furthermore, Copland (2003) noted that

distributive leadership practices demand high levels of collaboration from teachers and leaders. It also requires the ability to build and reach consensus, which is an important facet of collaboration (p. 379). Current trends in education created systems and structures that require teachers to work in collaborative teams in professional learning communities, which expanded teacher collaboration from managerial tasks and knowledge sharing to collective work towards a shared vision (Dufour & Eaker, 2008). As Hunt (2008) noted, effective formal and informal educational leaders will continue to hone their collaborative skills.

Collaborators work closely with other teachers in the school community in an informal leadership fashion to impact student achievement. Silva et al. (2000) third wave defined teacher leadership in a fashion that is more consistent with professional learning communities and the North Carolina standards and evaluation process. They stated:

> Teacher leaders would 'slide open doors' to collaborate with other teachers, discuss common problems, share approaches to various learning situations, explore ways to overcome the structural constraints of limited time, space, resources, and restrictive policies, or investigate motivational strategies to bring students to a deeper engagement with their learning (p. 781).

Childs-Bowen et al. (2000) are more explicit in their description of teacher leadership in the terms of school improvement, professional learning communities and school improvement by stating, "We believe teachers are leaders when they function in professional learning communities to affect student learning; contribute to school improvement; inspire excellence in practice; and empower stakeholders to participate in educational improvement" (p. 28). The advent of professional learning communities in schools increases the need for teachers to hone their collaborative skills (Dufour & Eaker, 2008; York-Barr & Duke, 2004). In addition, the

National Board for Professional Teaching Standards (2010) offered a rigorous certification process to improve the teaching profession and recognized accomplished teachers. The National Board for Professional Teaching Standards created five propositions for accomplished teachers. Proposition Five was entitled, "Teachers are Members of a Learning Community." It listed collaboration and leading as key traits of National Board Certified Teachers to improve learning, and impact student achievement in their classroom and across the school community.

Several educational policy publications in North Carolina expressed the importance of shared decision-making and collaboration throughout a school community and work in a professional learning community. The *North Carolina Professional Teaching Standards Commission* (2007) discussed leadership in the terms of collaborative Professional Learning Communities through shared power and authority, and by inviting staff input in decision making (p. 2).

Another aspect of collaboration and leadership is relationship building. Yarger and Lee (1994) noted, "The success of teacher leadership depends largely on the cooperation and interaction between teacher leaders and their colleagues" (p. 229). Often times, educators who view themselves as leaders realize their effectiveness increases if they are proficient in building relationships with peers (Acker-Hocevar & Touchton, 1999; Wetig, 2002; York-Barr & Duke, 2004). Kirby et al. (1992) stated educators feel effectiveness increases with charismatic leaders.

Collaboration appears to be a key trait of an effective school and teacher leader. Recent policies and the push for professional learning communities prevent isolation of teachers and mandated working together to meet the needs of students. The ability to build relationships and effectively collaborate with peers seemed to be a newer theme for leaders.

Conclusion

Throughout the literature on leadership, six themes emerged to give a consistent set of skills that successful leaders seemed to possess. The following section reviewed the emergence of teacher leadership, including the historical roles of teacher leaders and the policies that created expectations for teacher leaders.

The Emergence of Teacher Leadership

Leadership has been shown to be a key variable to school improvement (Leithwood et al., 2004; Marzano et al., 2005; Murphy et al., 2006; Murphy & Hallinger, 1988). However, the review of literature demonstrated that leadership was inconsistently defined and changed over time. Similar trends occur when reviewing teacher leadership. Katzenmeyer and Moller (2009) noted "when we visit groups that are interested in teacher leadership, there is a request for time to clarify the concept" (p. 5). Muijs and Harris (2003) stated, "In seeking a clear definition for teacher leadership an immediate problem emerged. It is evident from the international literature that there are overlapping and competing definitions of the term" (Muijs & Harris, 2003, p. 3). In a comprehensive synthesis on teacher leadership, York-Barr and Duke (2004) stated: "In writing about teacher leadership, many authors readily assert its importance and describe its various forms, but they usually fail to define it…Very few authors provide what would be considered a definition of teacher leadership" (p. 4). Furthermore, researchers and practitioners utilized many different descriptions of teacher leaders and a common understanding did not surface (Katzenmeyer & Moller, 2009; Muijs & Harris, 2003; Sherrill, 1999; York-Barr & Duke, 2004).

Another consistency with leadership outside of education was differing skills emerged when portraying them over time for teacher leadership. For example, in the 1990s and early 2000s researchers called for an increase in distributed leadership among teachers to lead to

school improvement (Anderson & Shirley, 1995; Camburn, Rowan, & Taylor, 2003; Goldstein, 2004; Hart, 1995; Spillane, Halverson, & Diamond, 2001; Weiss & Cambone, 1994; York-Barr & Duke; 2004). Much of the work on distributed leadership revolved around creating a model that was not led by one single leader, but by the utilization of many leaders and collaboration throughout the school (Camburn et al., 2003; Leithwood & Jantzi, 2000; Oswaga & Bossert, 1995; Smiley et al., 2002).

In the recent era of school based accountability, from the 1990s though 2011, an evolution of teacher leadership roles occurred, which was driven by increased accountability. As Frost and Durrant (2003) noted:

> We are interested in the exercises of leadership beyond the boundaries arising from the hierarchical models of organization and traditional views of teachers' roles; it is not just a matter of delegation, direction, or distribution of responsibility, but rather a matter of teachers' agency and choice in initiating and sustaining change whatever their status (p. 174).

Throughout the last two decades, the increased accountability demands for educators have led to school reform efforts. Many of these efforts focused on school leadership. In 1983, the federal commission report *A Nation at Risk* had a "profound impact on the way the nation thinks about educational policy" (Louis et al., 2005, p. 177). This report led to reform efforts and policies designed to improve education through its call for rigorous content, higher standards and teacher regulations (Louis et al., 2005). In 2001, after nearly two decade of educational reform, The Elementary and Secondary Education Act (ESEA) mandated student achievement benchmarks for all students on a standardized curriculum and assessments. The standardized curriculum led to a questioning of teacher roles (Valli & Buese, 2007). More recent reform

efforts, such as the federal Race to the Top grants, also, led to an increased focus on teachers' roles. In fact, the executive summary for *Race to the Top Executive Summary* (United States Department of Education, 2009) included incentives for states that implemented programs and policies to develop "great teachers and school leaders" (p. 9).

The subsequent section described the historical roles of teachers and the policies that have led to the current trends of teacher leaders.

Historical Teacher Leadership Roles

Teacher leaders have always existed (Silva et al., 2000). However, the roles of teacher leaders have often been dictated by the formal leader or the era. The formal leader role and teacher leader roles over time are examined in the following sections.

Formal leader role in teacher leadership development. In many instances, the principal was responsible for the formal leadership and leadership development of teachers. Even with the increase in literature on teacher leadership, it is important to note that some research supported that school improvement was predicated by strong principal leadership (Anderson & Shirley, 1995; Weiss & Cambone, 1994). Cotton (2000) noted in a meta-analysis on effective school practices that schools with increased student achievement have strong administrative leadership (p. 8).

It seems that successful schools had strong leadership. Conley (1991) pointed out that the current school based administrative model emphasized the formal authority of principals to delegate responsibility to teachers and create rules for subordinate behavior. The principal also was in control of planning and decision making models. However, positive relationships and loyalty increased between teachers and principals when principals allowed for participation in decision making and leadership decisions (Conley, 1991). However, Camburn et al. (2003)

pointed out that initially, much of the research on leadership in schools was solely based upon principal leadership, but beginning in the mid-1980s research began on the leadership exhibited by teachers (p. 347). Some research pointed to the principal having a strong role in developing effective teacher leaders (Barth, 2001; Childs-Bowen et al., 2000; Crowther et al., 2002; Hart, 1995; Lieberman, 1988). Barth (2001) stated, “Teachers may choose to exercise leadership independently, but few can successfully undertake a school improvement initiative without support from the school principal” (p. 447). Barth (2001) also noted, "Good principals are more hero-makers than heroes" (p. 448). As shown in Table 6, Barth (2001) described several practices that a principal can perform to build a culture of teacher leadership. Crowther et al. (2002) stated, "Where we have seen teacher leadership begin to flourish, principals have actively supported it or, at least, encouraged it" (p. 33). Furthermore, Frost and Durrant (2003) believed that principals have the formal authority and power to create the conditions and systems that enable teacher leadership to occur. Steel and Craig (2006) argued that administrators needed to empower teachers and build teacher leadership, which was a significant factor for school improvement. It seems that effective teacher leadership can occur without principal support, but principal support may be necessary for it to flourish.

The development of teacher leadership increased in importance with the advent of students accountability measures. Although principals are often held accountable for the test scores of students and the overall achievement scores within a school community, some research showed that principals have very little effect on the actual achievement of students (Hallinger & Heck, 1996; Leithwood, Jantzi, & Steinbach, 1999; Witziers, Boskers, & Kruger, 2003). However, Ross and Gray (2006) found that principals can impact student achievement through

Table 6

Principal as Culture Builder

Principal Practice	How to Influence Leadership
Expect	Principal sets vision of teacher leadership
Relinquish	Delegate as many tasks as possible to as many people
Trust	Support teacher decisions
Empower	Invite teachers to solve problems before they occur
Include	Seek out teacher's passion and distribute tasks
Protect	Support and protect from negative peers
Recognize	Recognize teacher efforts as you recognize student efforts
Share responsibility for failure	Take mutual credit and look to improve not blame
Give credit for success	Give the teacher the center stage

Note. Adapted from Barth (2001).

indirect leadership effects and by employing transformational leadership and distributed leadership amongst staff.

Collins' (2001) business term, Level 5 Leadership, was utilized in some research to underscore the importance of the principal's role in teacher leadership. Hill (2004) found Level 5 leadership in education:

> Consistent with Collins research, I am finding that most effective leaders see themselves as builders and humanists. Because they can subjugate their egos for the collective good and see the extraordinary when most only see the ordinary, they willingly invest in and share power with others (pp. 125-126).

Hunt (2008) further explained that in the early 21st Century, with the advent of No Child Left Behind, school boards began narrowing a definition of leaders and began looking for Level 5 leaders. Hunt (2008) asserted, "These are leaders with less outward ego involvement than high-profiled leaders" (p. 585). Level Five leaders receive enjoyment from working collegially with their administrative teams, teachers, and other staff members to move their districts forward toward a common vision" (Hunt, 2008, p. 585).

Even though the development of teacher leaders was often seen as a positive measure for school improvement, it has not always been seen as a positive by teachers. In a case study of three public school teacher leaders in varying urban to rural areas, Wasley (1991) reported that tension existed between formalized teacher leaders and peers. Dozier (2007) surveyed 197 identified teacher leaders and found that teachers feel many administrators believe that a good teacher can also be a good "teacher of teachers" (p. 55). Many of the teachers in this study did not believe that was a positive trend. Even without formal leadership, teachers did maintain informal leadership skills, such as taking initiative and mobilizing staff around a common vision,

monitoring of peers, sharing knowledge, and acting as a liaison with administration (Danielson, 2006; Killion & Harrison, 2006). However, some research showed that some informal teacher leaders did not enjoy the spotlight and are not looking to raise into positional leadership roles (National Comprehensive Center for Teacher Quality, 2010). It may seem that the development of leadership skills for teachers in informal roles is the path to take (such as teammate or collaborator) since the effectiveness of formal teacher leadership authority was either predicated on the principal, teacher acceptance, teacher tension, or the existing hierarchical structure of the school community.

Teacher leadership over time. A way of investigating a definition or the skills of teacher leadership was to review the evolution of roles that teacher leaders possessed over the last fifty years. Just as in other disciplines, teacher leadership changed over the past several decades (Muijs & Harris, 2003; Silva et al., 2000; York-Barr & Duke, 2004). The consistent transition of leadership skill sets made it more difficult to narrow to a singular definition. Silva et al. (2000) performed a qualitative case study with three teachers that were seen as teacher leaders. They noted that since the mid 1950s, teacher leadership has seen a distinct shift in functions from the introduction of formalized teacher leadership roles, such as union representative to current informal leadership roles within the context of a professional learning community (see Table 7). However, they found that the trait of teacher leaders nurturing other teachers remained consistent over time.

These waves are consistent with Rost's concept of changing definitions of leadership over time as shown in Table 2. Duke (1994) strengthened the argument of the third wave of teacher leadership by contending that leadership is not merely the function of a formalized role,

Table 7

Three Waves of Teacher Leadership

Wave	Time Frame	Type of Leader	Role	Leadership Roles
First Wave	1950-1980s	Role Specific	Formal	• Union Representative • Grade Chairs • Department Chairs •
Second Wave	1980s - late1990s	Instructional	Formal and Informal	• Mentor • Coach • Curriculum Master •
Third Wave	Mid-1990s – Present	Collaborator	Formal and Informal	• School Improvement Team representatives • Professional Learning Team leaders and members • Building Leadership Team representatives

Note. Adapted from Silva et al. (2000, pp. 780-781).

by stating, “Examples abound of individuals who are perceived to exercise leadership while occupying subordinate positions" (p. 269). However, despite calls for increased informal leadership abilities, many school communities and teacher leader tasks still return to the more traditional formalized leadership tasks, such as grade chair, mentor, and union representative (Archer, 2001; Fessler & Ungaretti, 1994; Guiney, 2001; Paulu & Winters, 1998; York-Barr & Duke 2004).

Smylie et al. 2002 found there has been a move from formalized teacher leadership to a more informal and distributive leadership model in schools. Goldstein (2004) noted, “A variety of education policies increase teachers' leadership responsibility by placing them in such roles as mentors, curriculum developers, peer coaches and researchers” (p. 173).

The constant change of accepted roles of perceived teacher leaders indicates that this shift in roles may give insight into the current reality and future propositions of teacher leadership. Transforming from formalized, positional types of leadership to a more influence based leadership style; teacher leaders may have greater impacts on school communities. This will allow for the defining of leadership traits and themes from the research and guide development of teacher leaders.

Formal teacher leadership roles. Historically, teacher leadership was defined in terms of formal leadership roles. Wasley (1991) depicted the utilization of formal teacher leaders as an addition to the administration and to not “change practice but to ensure the efficiency and effectiveness of the existing system” (p. 4). Walsey (1991) also noted the formal leadership roles had little to do with school reform and school change, but were a function of school management and advocacy for teachers. Furthermore, many of the formalized leadership roles that teacher leaders historically fulfilled have been described as administrative type roles to regulate schools

(Evans, 1996; Frymier, 1987; Wasley, 1991). Silva et al. (2000) believed that the initial formation of teacher leadership was defined in formal roles of department heads, grade chairs, and union representatives whose main purpose was to create an effective educational system for teachers and not on instructional leadership. Some researchers also discovered the development of roles, such as department chairs, allowed teachers to exert power and influence with their formal role (Leithwood & Jantzi, 2000; Little, 1998). Furthermore, instructional practices and learning were not considered parts of these leadership roles, and often went to educators that were interested in the political aspects of schools (Leithwood & Jantzi, 2000).

A newsletter from The Center for Comprehensive School Reform and Improvement (2005) entitled *Teachers Leaders: The Backbone of Sustained Improvement* readily admitted that traditional formal leader roles such as grade chair and department leader are the most prevalent leadership opportunities in schools, but that leadership for teachers needs to expand to truly accomplish school reform (p. 1). The newsletter noted the importance of formalized teacher roles, but also recognized the need for building the capacity of leadership skills amongst teachers.

Mentor. For many years, educators viewed teacher leadership in terms of its role in the school. A major role of leaders includes the leadership of others through mentoring and coaching. By the mid-1990s, almost all states utilized a mentor program for novice teachers (Wagner, 1985). The induction programs that states employ may vary, but one thing is consistent: experienced and skilled master teachers assist and assist beginning teachers into the teaching profession (Wagner, 1985).

Even though in recent years new roles have emerged, many educators still view the traditional function of mentoring as a key aspect of a teacher leader (Darling-Hammond et al.,

1995; Harris & Muijs, 2003). Wynne (2001) noted that although many researchers advocated for teacher leaders to move beyond formal leadership roles, many still list mentoring other teachers as a major facet of teacher leadership. In fact, North Carolina utilized the position of mentor as one of the examples of being a teacher leader for the new *North Carolina Teacher Evaluation Rubric* (North Carolina State Board of Education, 2007e).

Curriculum master. Expertise and knowledge of the curriculum has long been a role of a teacher leader. Pellicer and Andersen (1995) viewed teacher leaders as pedagogy and content experts. They stated, "Many of us now believe that effective instructional leadership requires a partnership between teachers and principals" (p. 5). Furthermore, teachers who have content expertise make them vital in a leadership role during conversations and decisions about curriculum decisions (Hart, 1995; Weiss, Cambone, & Wyeth, 1992). Whereas Paulu and Winters (1998) emphasized that teachers are critical in decisions concerning curriculum and educational reform because they "understand the support they need" (p. 7). Finally, reform efforts attest that teachers are necessary to lead instructional improvement because of their expertise about teaching and learning (Barth, 2001; Griffin, 1995; Hart, 1995). Consistent with the research on the waves of leadership (see Table 7), curriculum masters are often viewed as leaders in a school community. Novice teachers and teammates often look to the more knowledgeable members of the school for guidance and questions. Therefore, it is not surprising that curriculum masters often serve in formal and informal leadership roles.

Site based decision-makers. Beginning in the late 1980s and early 1990s school reform and restructuring movements to the educational system began. Teacher union groups, principals, and education advocates began calling for site-based decision making as major methods of school improvement (Conley, 1991; White, 1992). Leithwood and Duke (1999) identified six

categories of leadership and noted that teacher leadership is closely aligned with instructional leadership which typically:

> Focuses on the behaviors of teachers as they engage in activities directly affecting the growth of students. Many versions of this form of leadership also focus additionally on other organizational variables (such as school culture) that are believed to have important consequences for such teacher behavior (p. 47).

Crowther et al. (2002) reiterated this notion of school improvement beyond the classroom with their description of the task by stating, "Teacher leadership facilitates principled action to achieve whole-school success" (p. xvii).

In 2009, the North Carolina Network for School Based Management was created to assist in the development of strategies to aid schools and districts to meet the policy. The network had 24 school districts, the National Education Association (NEA), the North Carolina Association of Educators, the Triangle Leadership Academy, East Carolina University, and others amongst its membership. The NC Network (Retrieved from http://www.ncnetwork.org/about.asp) concluded that once explicit structures for shared decision-making are in place, school districts are better able to achieve their student improvement goals and the goals in the ABCs Plus and No Child Left Behind acts. Furthermore, the 2009-2010 North Carolina School Improvement Planning Implementation Guide published by the North Carolina Department of Public Instruction (2009a) dictated that the School Improvement Process (SIP) should implement "distributed leadership and collaboration among a team to help drive improvement" (p. 16). Distributive leadership requires the formal school leaders to allow subordinates to become more involved in decision-making.

Site based decision makers were in formal leadership roles. They also accomplished many of the expectations for increased distributed leadership called for by educational reform experts. These formal leadership roles often assisted in maintaining or developing the systems and structures within a school (Leithwood & Duke, 1999). They also play an important role in setting vision, fulfilling legal requirements of teacher participation, and distributed leadership in school improvement plans.

Current Expectations of Teacher Leaders

The era of accountability has increased the expectations for teachers. The expectations are demonstrated in policies in several states. Many of the policies, including those in North Carolina, have mandated increased skills in teacher leadership. The following section examines the policies that mandate increased levels of teacher leadership in North Carolina. It also reviews some of the teacher leadership preparation programs that have recently developed.

Policies. Many states have created new policies, evaluation systems, and preparation programs for teacher leaders. The Five State Teacher Leadership Consortium Project (Kansas State Department of Education, 2010) included Kentucky, Ohio, Delaware, Alabama, and Kansas. Through this, the Teacher Leadership Exploratory Consortium (2011) created a teacher leadership definition as "the process by which teachers…influence their colleagues, principals, and other members of the school community to improve teaching and learning practices with the aim of increased student learning and achievement" (p. 10). This project led to the development of a new teacher evaluation systems for the five states. In another instance, Illinois created a Teacher Leader Endorsement that state universities offered (Illinois Board of Higher Education, Retrieved from http://www.ibhe.state.il.us/SchoolLeadership/Meeting1031/EndorsementSummary.pdf). Moreover, the Los Angeles Unified School District created a teacher leadership

certification program that resulted in college credits and a certification (Los Angeles Unified School District, Retrieved from http://notebook.lausd.net/portal/page?_pageid=33, 215966&_dad=ptl&_schema=PTL_EP). Finally, North Carolina developed new standards and evaluation system for superintendents, principals, and teachers with a stronger emphasis on teacher leadership.

The recently adopted standards and evaluation instruments for North Carolina educators have created a shift in evaluation for superintendents, principals, and teachers. Many states offered individual districts the task of creating teacher evaluation systems that often inflated teacher performance (Williams, McKinney, Garland, & Goodwin, 2010). However, North Carolina developed an evaluation system that was consistent throughout the state and demands not only a high level of proficiency in leadership for teachers, but the ability of developing leadership for superintendents and principals.

A limited number of research studies were utilized in the creation of the North Carolina policies. Furthermore, few practitioner articles or books were cited within the standards or evaluation instruments. This section will review the literature surrounding district, school, and student improvement, and the literature that assisted in the creation of the North Carolina policies, standards, and evaluation instruments for educators.

Superintendents. According to the North Carolina Standards for Superintendents, the seven standards for superintendents reflect the 2006 meta-analysis by Waters and Marzano from the Mid-Continent Research for Education and Learning (McRel) organization titled *School District Leadership that Works: the Effect of Superintendent Leadership on Student Achievement*. According to the document, the meta-analysis utilized 27 studies since 1970 that "used rigorous, quantitative methods to study the influence of school district leaders on student achievement" (p.

3). Furthermore, the 27 studies involved 2,817 school districts and 3.4 million students. Waters and Marzano (2006) did find a statistically significant relationship between district level leadership and student achievement (p. 3). Furthermore, the meta-analysis provided a positive significant statistical difference in the ability for superintendents to provide principal autonomy, but also provide alignment and resources for building leadership for principals. The meta-analyses provided several more findings that were not related to building principal or teacher leadership skills and are therefore not included in this paper.

Principals. The *North Carolina Standards for School Executives* (North Carolina State Board of Education, 2007c) stated the seven critical standards used as the framework for the North Carolina School Executive Standards are borrowed from a Wallace Foundation study by Portin, Schneider, DeArmond, and Gundlach (2003) entitled *Making Sense of Leading Schools: A Study of the School Principalship*. The *North Carolina School Executive: Principal Evaluation Process* (North Carolina State Board of Education, 2007a) is aligned to the standards created by McRel, the same company that provided the meta-analysis that was utilized as a foundation for the Standards for Superintendents.

Portin et al. (2003) developed the study to "understand the principalship in greater depth rather than provide a snapshot from a broad national survey" (p. 4). The study completed in-depth interviews with executives from twenty-one schools in four small to mid-size cities in four different states. Principals at traditional public schools, charter schools, and private schools were included in the study. Through interviewing over 150 principals and assistant principals, the researchers identified "common functions of leadership evident in all types of schools and performed by someone in each of them" (Portin et al., 2003, p. 17). They established seven critical leadership functions of school principals: instructional, cultural, managerial, human

resource, strategic, external development, and micropolitical. Even though they are not in the same order, the seven critical functions are titled exactly the same as the seven North Carolina Standards for Principals.

The study also dedicated an entire section to the concept of shared leadership. Portin et al. (2003) title Section Three, "More than a 'One-Man Band." Within this section, the differences between "de facto" leaders and positional leaders are defined. De facto leaders are individuals in every school that help identify issues that interfere with learning, create an increased participatory environment, and bring resources towards meaningful change (Portin et al., 2003, p. 25). It is important to note that they also suggested that de facto leaders can sabotage the work of the school. The study further outlined different ways teachers could be leaders within the school community, and how principals could develop and nurture this leadership. The anecdotal examples and methods of leading within schools showed little alignment to the North Carolina Teacher Evaluation Process.

Teachers. In 1996, General Statute 115C-295.1 was passed by the North Carolina General Assembly, which established the North Carolina Professional Teaching Standards Commission. The Commission developed the *Core Standards for the Teaching Profession*, which was adopted by the State Board of Education in November of 1999. Until the development of the Core Standards, teacher leadership had remained unmentioned. The core standards were a huge shift from previous standards in that there was a major emphasis placed on teacher leadership, teacher facilitation, and teacher reflection.

In 1997, The Excellent Schools Act was passed by the General Assembly. It focused on improved student achievement and reducing teacher attrition. Furthermore, The Excellent Schools Act concentrated on valid assessment instruments for teachers and revoked the ability

for individual district waivers. However, the Act did not create a new instrument, nor did it look to align the instrument to the Core Standards. Therefore, there was still not an evaluation process or emphasis on teacher leadership development.

In 2006, the North Carolina Professional Teaching Standards Commission was charged with reviewing and aligning the standards with the State Board of Education's newly adopted mission: "Every public school student will graduate from high school, globally competitive for work and postsecondary education and prepared for life in the 21st Century." In the annual Report to the Joint Legislative Education Oversight Committee, the North Carolina Professional Teaching Standards Commission (2006) stated that their mission was to "ensure that every student in North Carolina Public Schools will have a knowledgeable, skilled, compassionate teacher. In order to achieve this objective, the Commission will establish and maintain rigorous standards for all teaching professionals" (p. 1). In 2007, the commission adopted the North Carolina Professional Teaching Standards, which noted that teachers are leaders and that leadership among all staff members should be shared to bring consensus and ownership of the vision and purpose of the work of the school (p. 1). In the Professional Teaching Standards (2007), the board clarifies teacher leadership by providing subheadings and definitions:

a. Teachers Lead in Their Classrooms - Teachers demonstrate leadership by taking responsibility for the progress of all students to ensure that they graduate from high school, are globally competitive for work and postsecondary education, and are prepared for life in the 21st century.
b. Teachers Demonstrate Leadership in the School - Teachers work collaboratively with school personnel to create a professional learning community. Teachers provide input in determining the school budget and in the selection of professional development

that meets the needs of students and their own professional growth. They participate in the hiring process and collaborate with their colleagues to mentor and support teachers to improve the effectiveness of their departments or grade levels.

c. Teachers Lead the Teaching Profession - Teachers strive to improve the teaching profession. They actively participate in and advocate for decision-making structures in education and government that take advantage of the expertise of teachers. Teachers promote growth for all educators and collaborate with their colleagues to improve the profession.

d. Teachers Advocate for Schools and Students - Teachers advocate for positive change in policies and practices affecting student learning. They participate in the implementation of initiatives to improve the education of students. (p. 1).

Unlike the standards for superintendents and principals, the North Carolina standards for teachers do not cite any research articles, studies, or meta-analysis in the formation of the standards or evaluation process. However, a PowerPoint presentation on the North Carolina Professional Teaching Standards Commission's web-page stated that the work from the Framework for 21st Century Learning was referenced to assist in the creation of the standards. The PowerPoint was created to assist school districts with training of teachers for the implementation of the new standards and evaluation process.

The *Framework for 21st Century Learning* is a document created by the Partnership for 21st Century Learning, which is an advocacy organization focused on infusing contemporary skills into education. The organization brings together the business community, educators, and policymakers to define a powerful vision.

The Partnership for 21st Century Learning listed several standards for educators. However, no standards were written about teacher leadership. Furthermore, a thorough review of the Partnership's web-site showed no information relating to teacher leadership or the effects that teacher leadership has on student achievement. Much of the information could be correlated to standards in the North Carolina Standards for Teachers, but no information was found relating to the Teachers Demonstrate Leadership Standard or the subheadings in the evaluation instrument.

After reviewing the historical standards, it is important to examine the examples provided in the new teacher evaluation instrument for a teacher that garners a distinguished rating on Standard One: Teacher Demonstrate Leadership. Table 8 shows Standard One and a correlation to the six themes of leadership from the literature. The instrument does not refer to a research base to justify the standards nor the characteristics. Holistically, Standard I and the five sub-elements do encompass all six of the themes from the literature.

Conclusion. The North Carolina Department of Public Instruction dictated that teachers must be adept at leadership through laws and policies. However, there were few formalized training programs to develop and support leadership skills for teachers that want to remain in the classroom. Training for implementation of evaluation systems was provided, but no training for teachers that lacked leadership skills was provided. Some states, districts, universities, and agencies have created trainings for teachers that are looking for ways to increase their leadership abilities.

Teacher leadership preparation. In an opinion paper, Pellicer and Andersen (1995) stated, "instructional leadership must come from teachers if schools are to improve and teaching is to achieve professional status" (p. 16). Some research showed that teachers have the single biggest impact on student achievement, followed closely by school leaders (Leichty, 2010, p. 1).

Table 8

Leadership Standard from North Carolina Teacher Evaluation Instrument

Standard 1: Teachers Demonstrate Leadership

	Rubric for Accomplished	Rubric for Distinguished	Correlation to Leadership Themes
A. Teachers Lead in their Classrooms	• Communicates to students the vision of being prepared for life in the 21st century. • Evaluates student progress using a variety of assessment data. • Creates a classroom culture that empowers students to collaborate.	• Encourages students to take responsibility for their own learning. • Uses classroom assessment data to inform program planning. • Empowers and encourages students to create and maintain a safe and supportive school and community environment.	• Vision Setting • Results Oriented • Collaborator
B. Teachers demonstrate leadership in the school.	• Assumes a leadership role in professional learning community. • Collaborates with school personnel on school improvement activities.	• Collaborates with colleagues to improve the quality of learning in the school. • Assumes a leadership role in implementing school improvement plan throughout the building.	• Collaborator • Knowledge/Ability • Influence

Table 8 (continued)

C. Teachers lead the teaching profession.	• Promotes positive working relationships through professional growth activities and collaboration.	• Seeks opportunities to lead professional growth activities and decision-making processes.	• Collaborator • Results Oriented/ Accountability • Influence • Knowledge/Ability
D. Teachers advocate for schools and students.	• Participates in developing policies and practices to improve student learning.	• Actively participates, promotes, and provides strong supporting evidence for implementation of initiatives to improve education.	• Influences • Results Oriented/ Accountability • Knowledge/Ability
E. Teachers demonstrate high ethical standards.	• Knows and upholds the *Code of Ethics for North Carolina Educators* and the *Standards for Professional Conduct.*	• Models the tenets of the *Code of Ethics for North Carolina Educators* and the *Standards for Professional Conduct* and encourages others to do the same.	• Ethics

Note. Adapted from North Carolina Teacher Evaluation Process (2007d).

Through the advent of Professional Learning Communities and increased calls for teacher collaboration, the influence of a single teacher can now extend beyond his or her classroom and potentially impact the entire school community. They defined instructional leadership in terms of shared decision making and formalized leadership team decisions.

However, there is minimal research on a teacher leader's impact on student improvement, or on the overall achievement of a school or district. Furthermore, the research did not provide strong evidence or indicators that increased teacher leadership abilities improved student achievement. Some researchers utilized an argument that quality teacher leadership improves aspects of schooling and therefore improves student achievement. For example, Marks and Louis (1997) performed a study on teacher empowerment in twenty-four restructuring urban schools that had at least four years of shared decision making experience. Data sources included surveys, case studies with interviews, and analysis of student performance. In the study, they argued that teacher empowerment for decision making is a key attribute to student academic performance. One of the conclusions of the study was that teacher empowerment positively affects quality of instruction. The authors believed that the increased quality did have an indirect affect on student academic performance. However, a significant difference was not found. Leithwood and Jantzi's study (2000) found that teacher leadership did not have a significant impact on classroom conditions or student identification in school, but it does have a significant influence on the school in general. However, Cowley and Meehan's (2002) performed a quantitative study of forty-eight high performing schools as identified by the Kentucky Department of Public Instruction. Using a questionnaire, they studied schools that worked well with economically disadvantaged students and those that did not do as well based on academic indicators. The study utilized teacher leadership as a variable for measuring student achievement and reducing the

achievement gap. According to the study, shared leadership did not produce statistical significance towards student achievement (Cowley & Meehan, 2002, p. 13).

Despite the limited research, recent interest in teacher leadership preparation has arisen. A search of the literature does find several articles and programs on how to train teachers to become principals, mentors, or formal leaders. Some research suggested that effective teacher leadership involved skills of shared-decision making, collaboration, and team-building as opposed to hierarchical formalized leadership (Alvarado, 1997; Coyle, 1997; Wynne, 2001). However, some teachers often lacked the necessary skills for successful leadership and are thus left out of the leadership loop if they do not want to fulfill formal leadership roles (Sherrill, 1999; Wynne, 2001). Therefore, teachers that lack the skill and want to develop leadership traits are often left with few options. Moreover, the options that are readily available require large commitments of time or money. The following section will review methods of leadership preparation for teachers that do not want to move into formalized leadership roles.

District and state preparation programs. The emphasis on teacher leadership led to state and district programs that provide professional development, licensure credits, and potential licensure certification. A review of the programs found that most were formalized, often required college coursework, and required the teacher pay tuition for the services. Furthermore, many of the programs did not provide additional funding for teachers once the coursework was finalized. New York District Region One previously offered a fifteen hour program entitled The Distinguished Teacher Leader Program through the Bank Street College of Education. The program is no longer available, but it did provide teachers with an opportunity to become instructional leaders, staff developers, and coaches (Illinois Board of Higher Education, Retrieved from http://www.ibhe.state.il.us/SchoolLeadership/Meeting1031/EndorsementSumm

ary.pdf). The San Juan Unified School District of California worked with the local teachers union to create a leadership system within the contracts of teachers. The contracts required schools to elect leadership teams with a stipend of $1,400 for teachers to serve as school based leaders. They worked to create professional learning teams dedicated to student learning and professional development towards continuous improvement (San Juan Teachers Association, Retrieved from http://www.sjta.org/docs/Contract_pdf/Article_24.pdf). Finally, the Los Angeles Unified School District (Retrieved from http://notebook.lausd.net/portal/page?_pageid=33, 215966&_dad=ptl&_schema=PTL_EP) offered a fifteen hour cohort based leadership program that focused on student learning and mentoring of other teachers.

Individual states have also created pathways to a teacher leadership certificate. The Illinois Board of Higher Education has created a Teacher Leadership Endorsement which was geared towards recognizing the "expertise of teachers in subject matter knowledge, instructional practices, child development, and teacher needs" (Illinois Board of Higher Education, Retrieved from http://www.ibhe.state.il.us/SchoolLeadership/Meeting1031/EndorsementSummary.pdf). The certification was for teachers that did not want to pursue administrative pathways, but want to impact the school through leadership roles. However, leadership roles that were listed for candidates were formal roles, such as mentor, school improvement team member, crisis team member, union representative, and curriculum developer (Illinois Board of Higher Education, Retrieved from http://www.ibhe.state.il.us/SchoolLeadership/Meeting1031/EndorsementSummary.pdf).

Louisiana also developed a teacher leadership endorsement with two graduate hours for teachers that did not want to enter administration. The coursework was aimed for teacher leaders that wanted to become team leaders or department chairs (Division of Administration, State of

Louisiana, Retrieved from http://www.doa.louisiana.gov/osr/lac/28v131/28v131.doc, p. 55). Finally, Georgia also created a teacher leadership endorsement. However, their endorsement was a pathway towards school leadership certification. The Georgia endorsement focused on building of a shared vision, professional growth plans, research skills, and building a positive school culture (Illinois Board of Higher Education, Retrieved from http://www.ibhe.state.il.us/SchoolLeadership/Meeting1031/EndorsementSummary.pdf).

In a unique program, five states collaborated to create leadership opportunities. The Five State Teacher Leadership Consortium Project included Kentucky, Ohio, Delaware, Alabama, and Kansas. The five states created the KODAK Project and developed a definition of teacher leadership (Kansas State Department of Education, 2010). The introductory section states:

> Teacher leaders are educators who use their expertise to improve student learning by working outside of the classroom in formal and informal ways to augment the professional skills of colleagues, to strengthen the culture of the school, and to improve the quality of the instruction (p. 4).

Furthermore, the project's curriculum consisted of fourteen courses within four sections of leadership development. The courses were created by individual states and shared throughout the project. Table 9 shows the section and the coursework and each state that developed the courses. The coursework titles and descriptions show an alignment to the leadership themes. Knowledge/Ability, collaboration, influence, and ethics are taught in the project. However, accountability and vision setting were not formally taught.

Many of the programs that were developed in districts and states are new and have not been studied for effectiveness. Furthermore, many states have begun focusing on leadership for the recent federal Race to the Top grants. According to the National Comprehensive Center for

Table 9

KODAK Project Coursework

Section	Course Title and State that Developed Course
Understanding of the Whole School	• Understanding How Schools Work [Alabama] • Understanding Professional Responsibilities of Leaders [Kentucky] • Developing a Deeper Understanding of Leadership [Ohio]
Working Productively with Others	• Developing More Effective Interpersonal Skills [Kentucky] • Learning to Coach/Mentor Others [Ohio] • Facilitating Productive Collaboration [Delaware]
Deepening the Instructional Capacity of Colleagues	• Designing and Implementing High-quality Professional Development [Kansas] • Recognizing, Assessing, and Supporting Quality Instructional Practices with Colleagues [Kansas] • Program Evaluation on Teacher Leaders [Delaware]
Leading School Improvement	• Developing and Sustaining Professional Learning Communities [Kansas] • Leading Change [Delaware] • Teacher Leader Research I [Alabama] • Teacher Leadership Research II [Alabama] • Promoting Equitable Schools for Youngster and Families [Kentucky]

Note. Adapted from KODAK Project.

Teacher Quality (2010) sixty percent of states and the District of Columbia included teacher leadership programs into state grants for their applications for Race to the Top funding. In the report, 20 states focused on teacher leadership in some capacity in their applications. Twenty states provided compensation for taking on additional leadership roles and nine states were utilizing evaluation results to identify effective teachers to utilize in formalized leadership roles, one state revised leadership standards, and one state created tiered licensure structures that include leadership responsibilities.

The development of the programs in conjunction with federal grants will necessitate a thorough evaluation system to determine the effectiveness of the program. The formalized leadership development programs that are offered through school districts and states create pathways into formalized leadership positions such as grade chair, union representative, committee member, or even school administration. Furthermore, many of the programs focused primarily on the knowledge acquisition portion of leadership traits. Finally, teachers were required to utilize personal resources and time with little compensation for their efforts. Finally, the state and district sponsored preparation models did not provide opportunities for a large amount of teachers to improve leadership skills.

College preparation programs. Formalized teacher leadership preparation programs through universities and colleges have been developed in various parts of the country. These programs are often degree programs and many times resulted in a Masters Degree which required necessary admission to the college and tuition payments. As Wynne (2001) noted:

> "A few degreed teacher leadership programs have sprung up around the country: Jacqueline B. Vaughn Graduate School for Teachers, Chicago, IL; Center for Educational Leadership, California State University, Hayward, CA; Teacher Leadership, Wheelock

College, Boston; Teacher as Leader, University of Wisconsin-Milwaukee; Teacher Leader Program, Wright State University; and the Urban Teacher Leadership MS at Georgia State University" (p. 2).

Table 10 synthesizes a fairly constant set of traits that were taught in these leadership programs and demonstrated the alignment to themes of leadership skills. Vision-setting and results orientation/accountability were omitted from the training offerings. However, a major emphasis was placed on research skills in these programs.

Some university programs aligned their teacher leadership graduate programs with National Board of Professional Teaching Standards (NBPTS) and certification. St Cloud State University offered a graduate program in teacher leadership that was aligned to the NBPTS and helped teachers create a portfolio that could be submitted for National Board Certification (St. Cloud State University, 2010). The University of Louisville's Teacher Leadership Master of Education Program (Retrieved from http://louisville.edu/education/degrees/med-tl.html) listed the program as a pathway to NBPTS certification. It also listed coaching and mentoring as focus of the degree program.

Still other universities offered teacher leadership workshops that allow for teaching credits, but did not lead to a degree. The Virginia Commonwealth University developed the Center for Teacher Leadership (2010) which presented workshops for assistance with National Board Certification and training in topics of becoming a change agent, mentoring, communication, and teaching adult learners. Whereas, Plymouth State University created on-line courses on teacher leadership for graduate credits that are modeled after business leadership. The recent popularity of teacher leadership as a method of school reform increased the number of degree and non-degree programs offered by universities and colleges. Several of the programs

Table 10

Leadership Training and Alignment to Themes of Leadership

Traits from Leadership Programs	Alignment to Literature
Demonstrate expertise in their instruction and share that knowledge	Theme of Knowledge/Ability
Are consistently on a professional learning curve.	Theme of Knowledge/Ability
Frequently reflect on their work to stay on the cutting edge of what's best for children.	Theme of Results Orientation
Engage in continuous action research projects that examine their effectiveness.	Theme of Results Orientation
Collaborate with their peers, parents, and communities, engaging them in dialogues of open inquiry/action/assessment models of change.	Theme of Collaboration
Become socially conscious and politically involved.	Theme of Ethics
Mentor new teachers.	Historical Role of Teacher Leader
Become more involved at universities in the preparation of pre-service teachers.	Theme of Knowledge/Ability
Are risk-takers who participate in school decisions.	Distributed Leadership and Site-based Decision Making

Note. Adapted from Wynne (2001).

offered assistance with increasing leadership capacity of participants. Many also support furthering a teacher's career through National Board Certification or preparation for formalized leadership positions. Reviewing the coursework shows that the programs did not create opportunities for developing the informal skills necessary for peer leadership.

Leadership networks. Recently, teacher networks have been created to nurture leaders. The Center for Teaching Quality created the Teachers Leaders Network (TLN) in 2003 as an on-line community to support teacher leaders (Teacher Leaders Network, 2008). TLN invited two hundred teachers to participate in a trial period and over eighty percent opted to remain with the TLN after the trial period. The on-line organization worked to fulfill the mission, "To promote the powerful potential of teacher leadership and to improve student learning by advancing the teaching profession" (Teacher Leaders Network, 2008). The network currently runs as an on-line blog and forum, and major advocacy group for the teaching profession. Furthermore, according to the Center for Teacher Quality (2008) a major focus for the TLN was to increase teacher pay for teacher leaders. This national forum created on-line professional development opportunities for teachers. The most recent initiative revolved around preparing teachers to facilitate professional development for other teachers in order to improve teaching and learning (Berry, Daughtery, & Wieder, 2010). Finally, the network recently partnered with the National Board for Professional Teaching Certification to offer support to teachers thriving to receive their NBCT certification (Teacher Leaders Network, 2008).

Support for teachers that are looking to further their career is also a major focus of many other smaller networks. The Arizona Teacher Leader Network and networks through the University of Chicago and Temple University offer support for teachers to gain NBCT

certification. Furthermore, these networks offered seminars for facilitating professional development.

Networks are a new method for teacher leaders to communicate and advocate for the teaching profession. They offered venues for developing formalized leadership roles within schools, and methods of furthering a teacher's career through support for NBCT certification. However, the networks did offer support in developing skill sets for informal leadership roles. Furthermore, the networks were self-selected by teachers that were interested in developing their leadership skills.

Institute for teacher leadership. A large, urban district in North Carolina implemented a teacher leadership preparation program. The stated goal of the program was "to provide opportunities for teacher leaders to develop the skills needed to lead and support school improvement within a learning community" (Wake County Public School System, 2009, p. 1). The curriculum for the ITL addressed each of the six leadership themes to some degree. There was a strong emphasis on collaboration and results-oriented/accountability. There was less emphasis on ethics (see Table 11). The Institute included both group and individual activities over a period of two years. Participants completed *Crucial Conversations* (Patterson, Grenny, McMillan, & Switzler, 2002) and *Facilitative Leadership: Tapping the Power of Participation* (Interactive Associates, 1997) under the guidance of district leaders who were certified facilitators for those programs. District trainers led book study sessions using *Awakening the Sleeping Giant* (Katzenmeyer & Moller, 2009) and *Outlearning the Wolves* (Hutchens, 1988). Participants met with a variety of district leaders, attended leadership meetings with the Superintendent's Leadership Team, and Board of Education meetings. Finally, they completed a school improvement project.

Table 11

Institute for Teacher Leaders Research Alignment

Theme of Leadership	ITL Components
Vision-Setting	• Teaching and learning for all children • Vision in the School Improvement Planning process • Focus on vision in school culture • Establishing a vision as addressed in the book, *Awakening the Sleeping Giant* •
Results-Oriented/ Accountability	• Teachers received training in Crucial Conversations to assist in holding others accountable • Confronting barriers toward results was a major focus •
Influence	• Developed an understanding that leadership came from helping others and influencing them was addressed in the book *Awakening the Sleeping Giant* • Establishing level of influence was an important part of the training •
Knowledge	• The goal of the program was to focus on staying in the classroom and using their expertise. It was not intended to push them towards administration • There was a strong emphasis on building capacity to be a teacher leader. Discussion around content knowledge, instructional strategies, and the knowledge of leadership skills was prevalent. •
Ethics	• Ethics was discussed in the context of the North Carolina General statutes, the testing code of ethics, the district teacher ethics and other states and districts teacher ethics. • One module was on ethics. The importance was recognized but not a lot of time was spent on it. •
Collaboration	• The formal role to effectively run and facilitate meetings was a major portion of the training. Facilitative leadership was used. • A collaborative project and tapping into learning/working styles in order to build collaboration was part of the ITL • The entire ITL was part of a PLT. A focus on relationships and the skills to teach others to collaborate and communicate

Note: Context for the ITL was identified through the program flier and with conversations with program developers (S. Andrews, personal communication, October 4, 2011; T. Cobb, personal communication, October 12, 2011; E. Colbert, personal communication, October 15, 2011).

Three district employees were the primary developers of the training and facilitated most of the meetings. Interviews with the three primary staff development facilitators for the Institute for Teacher Leaders found that many activities for the institute aligned to the literature review (see Table 11). The ITL developers felt that developing teacher leaders was an important task. "We knew … there was no way a principal could do it all" (T. Cobb, personal communication, October 15, 2011).

Need for Further Research

Increased attention on school improvement has educational practitioners and politicians searching for methods to increase student achievement. The call for improved teacher leadership in the evaluation instruments of teachers, the lack of a universally crafted definition of teacher leadership, and the minimal research base on teacher leadership predicates a need for further research on how to develop more effective teacher leaders.

Summary

Although there is a large amount of literature on leadership, there is less information available on teacher leadership. In 2007, the North Carolina Department of Public Instruction developed and implemented new *North Carolina Professional Teaching Standards* and an evaluation instrument with a strong emphasis on teacher leadership. Although, North Carolina has not provided explicit training for school districts, principals, or teachers in developing leadership skills, some districts have developed training to support teacher leadership. With higher expectations for teachers to lead in their classrooms, schools, and communities, there was a growing need for additional research on teacher leadership and for the development of training to support teacher leaders.

CHAPTER 3: METHODOLOGY

This chapter described the methodology that was utilized for the study. First, the statement of the problem and the purpose of the study were explained. Second, the context of the study, the demographics of the school district where the study took place and the study participants were discussed. Third, the research questions, the survey, and the statistical analysis methods were reviewed. Finally, the study assumptions and the limitations were articulated.

Statement of the Problem

The new *North Carolina Teacher Evaluation Process* (North Carolina State Board of Education, 2007d) expected teachers to demonstrate leadership and principals to work with teacher leaders. However, it was not clear how teacher leaders would develop the expected leadership skills. The North Carolina State Board of Education defined teacher leadership when they adopted a new set of professional standards for teachers and a new evaluation system for measuring the performance of teachers against those standards. The North Carolina Department of Public Instruction created training to support the implementation of the evaluation system. Other professional groups in the state provided some training opportunities to develop leadership skills. However, no development opportunities were available specifically for teachers who did not demonstrate leadership at an adequate level when measured against the evaluation instrument. Furthermore, the existing research base did not provide consistent guidelines on how to prepare and develop teacher leaders who were expected to contribute to increased student, school, and district achievement. The lack of training designed to prepare and develop teacher leaders, despite the emphasis in the evaluation system, created a problem for North Carolina teachers who needed to develop teacher leadership skills and principals who needed to develop,

support, and involve those teacher leaders. Research was needed to explore how teacher leadership could be developed in meaningful ways.

Purpose of the Study

The purpose of this study was to examine the effects of a district training program for teacher leaders on leadership behaviors. The study examined how the participants perceived that their leadership behaviors had changed after completion of the district training program.

Context of the Study

Beginning in 2006, the North Carolina Board of Education created new standards and evaluation systems for principals and teachers. It created expectations not only that teachers would be teacher leaders, but that principals and superintendents would develop and support teacher leadership. Training was provided for implementation of the standards, but no training was provided for improving teacher leadership abilities. Training teachers to be leaders was largely the responsibility of individual teachers and principals.

The district where the study took place implemented the principal evaluation instrument in 2009 and the teacher evaluation instrument in 2010. The district was a large, urban, public, school district in central North Carolina. The district had approximately 143,000 students. Fifty-one percent of the students in the district were Caucasian and twenty-six percent were African-American compared to twelve percent Latino, six percent Asian/Pacific Islander, and five percent multi-racial. Approximately nine percent of the student population was classified as Limited English Proficiency and thirty-one percent received Free or Reduced-Priced lunches. Twenty-seven percent of the students were identified as academically gifted and over thirteen percent received special education services. The average performance on End-of-Grade and End-of-Course tests was above the state average. Furthermore, SAT scores were above the state and

national average and district graduation rates exceeded the overall state rate of graduation. Finally, the district had over 10,000 teachers and more than seventeen percent of the teachers were National Board Certified Teachers.

The district where the study took place attempted to develop a professional development program to train teacher leaders. From 2006-2010, prior to the changes in the evaluation system, the district's Office of Professional Development (OPD) offered professional development courses on leadership. The OPD also offered the Institute for Teacher Leaders for selected teacher leaders. Although the ITL coursework was developed prior to the development of the new teacher evaluation instrument, there was some alignment as shown in Table 11.

Institute for Teacher Leaders

As discussed in Chapter 2, the Institute for Teacher Leaders (ITL) was a two-year, cohort-model, professional development series. The Institute began during the 2005-2006 school year and ended in the 2009-2010 school year. Four cohorts of teachers participated in the program. Each cohort contained between fifteen and twenty teachers from various schools throughout the district. A total of seventy-one teachers from thirty schools attended the training during the five years of implementation. Entrance to the cohort was through a nomination process. The district's area superintendents chose the participating schools, and participating teachers were selected by their principals.

Participants in the Study

Cohort Three and Four of the ITL were chosen for the study. Cohorts One and Two participated in the ITL during the 2005-2007 academic years. Cohorts Three and Four participated in the ITL during the 2007-2009 academic years. Participants in the first two cohorts were not included in the study because of the length of time since their participation in the ITL.

Thirty-eight teachers originally participated in Cohorts Three and Four. One teacher did not complete the training, and another left the district and was unable to be contacted. Although three of the remaining thirty-six teachers transferred to new teaching assignments within the district, they were still included in the study. Thirty-two of the thirty-six possible ITL participants responded to the survey. All seventeen principals and thirty-eight of the sixty-two (61%) teammates responded to the survey.

Research Questions

This study addressed three research questions:

1. To what extent did teachers who participated in the Institute for Teacher Leaders have a positive perception of their ability to lead on their team and in their school?
2. To what extent did teammates of participants in the Institute for Teacher Leaders believe that the participants had positive leadership qualities?
3. To what extent did principals of participants in the Institute for Teacher Leaders believe that the participants had positive leadership qualities?

Data Collection

The study utilized a twenty-four item survey to measure the Institute for Teacher Leaders (ITL) participants' perceptions of their leadership abilities prior to the training and their perceptions of their leadership abilities after the training. The survey was also sent to the participants' teammates and participants' principals. Due to a funding cut and elimination of the ITL, participants were rated their perceptions prior to training after completion of the program.

In order to determine the internal consistency of the survey, a Cronbach's Alpha Test was conducted. A Cronbach's Alpha Test is a measure of how well each individual item in a scale correlates with the sum of the remaining items (Simon, 2008). The survey was piloted by

leadership representatives from the school district who reviewed items and provided feedback on the face validity of the instrument and item clarification. Due to the small sample size, a Cronbach's Alpha test was unable to compute.

The survey asked respondents to rate their perceptions of the ITL participants' leadership abilities for each of the twenty four items. The final survey measured the perceived leadership abilities of the ITL participants.

Survey Development

The survey consisted of a series of demographic questions and the twenty-four leadership items. The demographic questions utilized display logic to categorize the survey respondents into categories of participant of the ITL, teammate of the ITL participant, and principal of ITL participant. Survey questions were adapted to survey participant group needs. This resulted in a separate survey for each of the three participant groups. The item differences were based on answering the questions as a self-report (ITL participant), about a peer (teammate of ITL participant), or about a supervised employee (principal of ITL participant).

Twenty-three of the survey items were derived from the descriptors of Standard I: Teachers Demonstrate Leadership from the *North Carolina Teachers Evaluation Process* (North Carolina State Board of Education, 2007e). The rubric's "accomplished" and "distinguished" descriptors were used for twenty-two of the survey items (see Chapter 2, Table 8). One survey item used the descriptor from the proficient rating of Element D. A Likert scale question was developed with forced responses of strongly disagree, disagree, agree, or strongly agree.

The twenty-four survey items were equally distributed into the six themes of leadership. The six themes were vision-setting, results-oriented/accountability, influence, knowledge/ability, ethics, and collaboration. The six themes were used to organize the survey in order to analyze the

data in research-based leadership categories. One survey item was created that was not included on the *North Carolina Teacher Evaluation Instrument*. The item that was derived from the proficient rating and the item that was not part of the descriptors were utilized so that there were equal numbers of survey items for each of the six themes of leadership. Corresponding survey items are shown in Table 12.

Survey Storage and Distribution

The survey for this paper was generated and stored using Qualtrics Labs, Inc. software of the Qualtrics Research Suite. Copyright © (2011) Qualtrics Labs, Inc. Qualtrics and all other Qualtrics Labs, Inc. product or service names are registered trademarks or trademarks of Qualtrics Labs, Inc., Provo, UT, USA. http://www.qualtrics.com. Utilization of the Qualtrics program ensured respondent anonymity and secure storage of survey data. The Qualtrics program arranged survey items in the order that the item was created. Survey item numbers did not align to the order of the survey item. After completion of all items, the items were categorized by each of the six themes from the framework (see Table 12).

Names and schools of members from Cohorts Three and Four of the Institute for Teacher Leaders were provided from the district's Office of Professional Development. A letter and approval form was mailed to all members of Cohorts Three and Four through the district courier system and e-mail system (see Appendix J). The letter explained the purpose of the study and described how the study would be conducted. The letter explained how the participants' interests were protected and how methods for providing anonymity and data security were ensured.

The survey was distributed through the Qualtircs program to Cohorts Three and Four participants that returned approval forms via e-mail. The ITL participants also provided the contact information of their principal and teammates when they returned the approval forms.

Table 12

Survey Items by Theme

Theme and Question	Item Number – Participant	Item Number – Teammate	Item Number - Principal
Vision-Setting			
Communicates Vision	11	67	96
Creation of Shared Vision	164	165	166
Developing Policies	59	88	111
Positive Change	58	87	110
Results Orientation			
Assumes Leadership SIP	53	82	105
Evaluates Progress	44	70	97
Seeks Opportunities decision-making	57	86	109
Assumes Leadership PLT	50	79	102
Influence			
Promote Implementations	61	90	113
Provide Evidence	62	91	114
Promote Positive professional growth	54	83	106
Encourage Students Responsibility	46	72	99
Knowledge/Ability			
Uses classroom	47	73	100
Seek Opportunities professional growth	56	85	108
Empower and encourage students safe environment	49	74	101
Participate in implementing	60	89	112
Ethics			
Know	63	92	115
Uphold	64	93	116
Model	65	94	117
Encourage others	66	95	118

Table 12 (continued)

Collaboration			
Promote Positive Collaboration	55	84	107
Collaborate improve learning	52	81	104
Collaborate school Improvement	51	80	103
Creates classroom	45	71	98

After receiving contact information and approval forms from the principals and teammates, the survey was distributed to the principals and teammates via e-mail through the Qualtrics program. Individual survey responses were given numerical code names through the Qualtrics program. All identifying markers from individual surveys were removed once the survey results were stored.

Analysis of Results

To address the research questions, the data for the study were analyzed in two ways. First, the patterns of survey responses were examined. Second, the relationships among the survey responses were explored. An account of the responses on the survey, overall and by groups, was reported by each of the response choices and by the overall level of agreement. This information allowed the researcher to discuss the overall patterns and trends from the respondents. The SPSS statistical program (SPSS for Windows, Rel. 10.2001. Chicago: SPSS, Inc.) was utilized to store and analyze the survey results.

Analysis of Patterns

After survey distribution, descriptive statistics were reviewed for individual response rates and to find missing values. All ITL participant, teammate, and principal respondents' survey results were utilized for the analysis of patterns. In order to compute the tables, the categorical Likert scale responses were converted from "strongly disagree, disagree, agree, and strongly agree" to numerical values of "1, 2, 3, and 4." The numerical values allowed for the analysis of the patterns. Furthermore, frequency tables were developed that included item means and standard deviation for a review of distribution and survey response patterns. Next, tables were created for each individual survey item, for the combined responses within each theme of leadership and for the overall combined results for all twenty-four questions. The tables showed

the frequency and percentages of survey item responses. These tables included aggregated participant responses prior to training, aggregated participant responses after training, aggregated teammate responses and aggregated principal responses. The tables were analyzed for trends and patterns in the survey responses.

Analysis of Relationships

In order to gain an understanding of the effectiveness of the Institute for Teacher Leaders (ITL), the relationships between the perceptions of participant leadership abilities were examined from the ITL participants, their team members, and their principals. A series of Fisher's Exact Tests was conducted on the questions that aligned to each of the six themes of leadership to determine if there was a significant relationship.

A Fisher's Exact Test is a statistical test used to determine if there are non-random associations between two categorical variables (Weisstein, 2010). In order to compute a Fisher's Exact Test, two categorical variables were created. The categorical Likert scale responses were converted from "strongly disagree, disagree, agree, and strongly agree" to numerical values of "1, 2, 3, 4". The "strongly disagree" (numeric value "1") and "disagree" (numeric value "2") were aggregated and coded as a "no" variable. The "agree" (numeric value "3") and "strongly agree" (numeric value "4") choices were aggregated and coded as a "yes" variable. This created an overall level of agreement or disagreement with an item.

In order to compute analyses for the Fisher's Exact Test, principal and teammate responses were aligned to the corresponding ITL participant. Two ITL participant survey results were not used for the Fisher's Exact Test. One participant was in a role where she did not have any teammates during or after the training. Another participant's teammate did not respond to the survey. Only thirty of the teammate responses were utilized for the analysis of the relationships.

The thirty teammate responses resulted from the pairing of a participant response with their correlating teammate. Multiple participants had more than one teammate respond to the survey. In these instances, the first teammate response was chosen for the Fisher's Exact Test and the remaining teammate responses were not utilized. This resulted in thirty ITL participant and thirty teammate survey results being utilized for the Fisher's Exact Test. Each principal's responses were used for the analysis of the relationships.

In order to compute Fisher Exact Tests on the themes, the four questions from each theme were aggregated. An aggregate score of twelve or above resulted in a "Yes" categorical response and a score of below twelve resulted in a "No" categorical response. Twelve was chosen as the "yes" response because that was an average of response of a "3" (or agree in the categorical response) for all four questions. Therefore, a participant would receive at least an average "agree" response for their leadership ability within the theme. The "yes" response indicated that the respondent felt there was a positive perception of the participant's leadership abilities. The "no" response indicated that there was a negative perception of the participant's leadership abilities. In the case of a missing value, an overall score of nine was utilized. This maintained the average of three for level of agreement and prevented the elimination of additional data sources for the analyses.

The relationship for combined leadership abilities was also computed. A "yes" value was determined by the number of respondents that had at least five of the individual themes of leadership scored at twelve or more. Therefore, an individual "yes" value designated that an individual respondent had a positive perception of the ITL participant's leadership abilities in five or six of the themes of leadership. A "no" value designated that an individual respondent had a positive perception of the ITL participant's leadership ability in four or fewer of the six

themes of leadership, which would signify that the participant was perceived to have positive leadership abilities in 66% or less of the themes. It was determined that 66% was too low for the participant to be considered to have a positive perception of their ability.

The Fisher's Exact Tests utilized the "Yes" or "No" level of agreement as one variable. For research question one, pre-perception versus post-perception of the participants was examined as the other variable. For research question two, the teammate perception versus the participant post-perception was examined as the other variable. Finally, for research three, the principal perception versus participant post-perception was examined as the other variable.

For all of the Fisher's Exact Tests, a significance level of .05 was utilized, meaning that there was a 95 percent probability that a relationship existed between the variables. The Fisher's Exact Test computed a p-value. The p-value showed whether a significant relationship occurred between the perceptions of respondents for each of the three research questions.

Assumptions of the Study

The study identified three assumptions. First, this study utilized a survey research design that relied on teacher self-reported data. It was assumed that respondents would truthfully and accurately answer the survey. However, Babor and Del Boca (1992) noted that even though the validity of self-report data has been occasionally questioned, research has found that it provides accurate data. They also noted that two issues impacting the validity of self-reported data were how sensitive the requested information was and the "characteristics of the respondents." Although the characteristics of the respondents could not be determined for this research study, the data was not highly sensitive, which led to the assumption of accurate and truthful responses from participants. Participants were notified that the survey was confidential, individual results would not be shared, and appropriate data storage methods were utilized. Second, the study

assumed the ITL participants would be able to answer the survey concerning their leadership ability before taking the coursework. The survey was given after the completion of the program. Some survey items asked about experiences that occurred as long as three years prior to the survey completion. Finally, the study design assumed that participating teachers, their principals, and their teammates understood the survey questions and would be able to respond accurately to the survey.

Limitations of the Study

There were limitations to the study. First, the teachers who participated in the Institute for Teacher Leaders were selected by their principals because they demonstrated leadership skills and many were already filling formal and informal leadership roles in the school. Therefore, it was difficult to determine whether the teachers already excelled at leadership prior to taking the coursework or developed leadership skills as a result of the program. A second limitation was that it was not possible to determine how demonstrated growth in leadership skills occurred. Teacher experiences, culture of the school, and the supervision of the principal were among the many factors that could support the leadership development of teachers. It was not possible to determine if growth was a result of the Institute for Teacher Leaders or other factors.

Summary

This chapter presented the methodology for the study. An overview of the study, the statement of the problem and the purpose to the study were presented. The context for the study was described and included the demographics of the district. The program that was being studied and the participants in the study were described. The development of the survey was explained, and strategies for collecting data were discussed. Research questions were presented with the

methods for analyzing the data. Chapter 4 presented the analysis of data, and the conclusions and implications of the study were presented in Chapter 5.

CHAPTER 4: RESULTS OF THE STUDY

This chapter presents the results of the study. The study utilized a survey to collect information on the perceived leadership abilities of teacher leaders who participated in a leadership professional development program. The teacher leader participants, their teammates, and their principals were surveyed. In this chapter, an analysis of the patterns from the survey and an analysis of the relationships among survey results are presented.

Statement of the Problem

The new evaluation system expected teachers to demonstrate leadership and principals to develop and work with teacher leaders, but it was not clear how teacher leaders would develop the expected leadership skills. The North Carolina State Board of Education defined teacher leadership in new sets of professional standards for teachers and principals. Although the North Carolina Department of Public Instruction created training to support the implementation of the related evaluation systems, and other professional groups in the state provide some training opportunities to develop leadership skills, professional development opportunities were needed for teachers to develop and strengthen their leadership skills.

Purpose of the Study

The purpose of this study was to examine the effects of a district training program for teacher leaders. The study examined how the leadership behaviors demonstrated by teachers changed after completion of a district training program.

Overview of Methodology

The study utilized a twenty-four item survey to collect data on the perceived leadership abilities of participants from a district professional development program. Survey items were developed using the descriptors from *Standard One: Teachers Demonstrate Leadership* from the

North Carolina Teacher Evaluation Instrument Rubric. The survey items were categorized and equally distributed into six themes of leadership from the review of literature (see Table 12). The six themes were vision-setting, results oriented/ accountability, influence, knowledge/ability, ethics, and collaboration. For each of the survey items, a Likert scale was utilized with forced choice responses of strongly disagree, disagree, agree, or strongly agree.

Participants in Cohort Three and Four of the Institute for Teacher Leaders (ITL), their teammates, and their principals completed the survey. The survey responses were compiled and analyzed. Descriptive statistics were analyzed for trends to determine whether participants "agree" and "strongly agree" frequencies and item means increased after taking the training. Participant, teammate, and principal responses were analyzed to determine if there were similarities between participants' responses and the responses of their teammates and principals. Finally, a series of Fisher's Exact Tests was computed to determine if there were significant relationships in leadership behaviors of ITL participants before and after the Institute for Teacher Leaders.

Research Questions

The research questions were:

1. To what extent did teachers who participated in the Institute for Teacher Leaders have a positive perception of their ability to lead on their team and in their school?
2. To what extent did teammates of participants in the Institute for Teacher Leaders believe that the participants had positive leadership qualities?
3. To what extent did principals of participants in the Institute for Teacher Leaders believe that the participants had positive leadership qualities?

Analysis of Results

The data for the study were analyzed in two ways. First the patterns of survey responses were examined. Next, an analysis of the relationships among the survey responses was conducted. The analysis of the relationships was used for the research questions.

Patterns in Survey Responses

Frequency tables were developed to verify individual response rates per survey item and to uncover missing values (see Appendix I). Patterns in survey responses were examined for a review of distribution. The responses were also analyzed for trends of increases in "agree" or "strongly agree" responses.

Descriptive statistics were computed for each of the themes of leadership. The four survey items within each leadership theme were combined to create means, medians, modes, and standard deviation for each theme of leadership. Means, medians, modes, and standard deviations were computed for the participants' perception prior to training, the participants' perception after training, the teammates and the principals. Tables were created for each of the individual themes (see Appendix H).

After reviewing the frequency tables and descriptive statistic tables, all twenty-four individual survey item responses were combined and examined for the frequency and percentage of responses for overall leadership abilities (see Table 13). Tables were also created for each individual survey item that showed the frequency and percentages of survey item responses (see Appendix I). All of the tables included participant responses prior to training, participant responses after training, teammate responses and principal responses.

Frequency tables were created with the percentage and frequency of responses for the results within each of the six individual themes of leadership. The aggregated tables allowed for

Table 13

Overall Combined Leadership Frequencies

Respondent Type	Participant Prior to Training		Participant After Training		Participants' Teammate		Participants' Principal	
	f	%	*f*	%	*f*	%	*f*	%
Strongly Disagree	2	0.2	1	0.1	4	0.4	1	0.1
Disagree	105	13.7	19	2.5	24	2.6	40	4.7
Agree	459	60	334	43.6	256	28.1	343	39.9
Strongly Agree	199	26	412	53.8	626	68.8	475	55.3
Total	765	100	766	100	910	100	859	100

an analysis of the patterns from the survey for each of the six themes of leadership. The patterns for the overall leadership abilities and the leadership abilities within each of the six themes of leadership were discussed below.

Overall combined leadership patterns. There were twenty-four survey items analyzed for the overall combined leadership patterns. The overall patterns in the survey showed that the frequencies and percentages of responses in the "agree" and "strongly agree" categories increased for the participants after completing the training (see Table 13). The percentage of "strongly agree" responses also increased after participation in the training. Prior to participation in the ITL, 86% of the responses were in the "agree" and "strongly agree" categories. However, after participation in the ITL, 97.4% of the responses were in the "agree" or "strongly agree" categories. Furthermore, 26% of participants answered "strongly agree" prior to the training and 53.8% of the participants answered "strongly agree" after the training opportunity.

The responses for the participants after training were similar to the teammates' responses and the principals' responses. The teammates answered with 96.9% in the "agree" or "strongly agree" categories and the principals answered with 95.2% in the "agree" or "strongly agree" categories. Furthermore, teammates responded with 68.8% in the "strongly agree" category and principals responded with 55.3 in the "strongly agree" category.

The overall combined leadership patterns show that participants increased their perceived leadership abilities after the training. The patterns also showed that all three respondent groups had high perceptions of participants' leadership abilities. However, the teammates had a much higher percentage of "strongly agree" responses then the participants or the principals (68.8% compared to 53.8% and 55.3%).

Patterns for each of the six themes. Tables for each of the six themes were created and analyzed for individual theme patterns and perceptions. Frequencies and percentages for each of the respondent type were reviewed. Results for each of the themes are in the following sections.

Vision-setting. There were four survey items analyzed for vision-setting. The overall patterns in the survey showed that the frequencies and percentages of responses in the "agree" and "strongly agree" categories increased for the participants after completing the training (see Table 14). The percentage of "strongly agree" responses also increased after participation in the training. Prior to participation in the ITL, 86.5% of the responses were in the "agree" and "strongly agree" categories. However, after participation in the ITL, 97.6% of the responses were in the "agree" or "strongly agree". Furthermore, 17.5% of participants answered strongly agree prior to the training and 52.4% of the participants answered "strongly agree" after the training opportunity.

The responses for the participants after training were similar to the teammates' responses and the principals' responses. The teammates answered with 98.7% in the "agree" or "strongly agree" categories and the principals answered with 96.4% in the "agree" or "strongly agree" categories. Furthermore, teammates responded with 62.5% in the "strongly agree" category and principals responded with 48.8% in the "strongly agree" category. There was one "strongly disagree" participant response, one "strongly disagree" teammate response, and no "strongly disagree" principal responses. Finally, the overall mean score for vision-setting increased from 11.90 prior to participation to 13.80 after participation. Teammates' mean results were 14.53 and principals' mean results were 13.74.

Table 14

Combined Vision Frequencies

Respondent Type	Participant Prior to Training		Participant After Training		Participants' Teammate		Participants' Principal	
	f	%	*f*	%	*f*	%	*f*	%
Strongly Disagree	1	0.8	1	0.8	1	0.6	0	0
Disagree	16	12.7	2	1.6	1	0.6	5	3.5
Agree	87	69	57	45.2	55	36.2	70	48.6
Strongly Agree	22	17.5	66	52.4	95	62.5	69	47.8
Total	126	100	126	100	152	100	144	100
Overall Mean Score	11.90		13.80		14.53		13.74	

Results-oriented/accountability. There were four survey items analyzed for results-oriented/accountability. The overall patterns in the survey showed that the frequencies and percentages of responses in the "agree" and "strongly agree" categories increased for the participants after completing the training (see Table 15). The percentage of "strongly agree" responses also increased after participation in the training. Prior to participation in the ITL, 71.9% of the responses were in the "agree" and "strongly agree" categories. However, after participation in the ITL, 96.1% of the responses were in the "agree" or "strongly agree". Furthermore, 21.1% of participants answered "strongly agree" prior to the training and 45.3% of the participants answered "strongly agree" after the training opportunity.

The responses for the participants after training were similar to the teammates' responses and the principals' responses. The teammates answered with 93.4% in the "agree" or "strongly agree" categories and the principals answered with 95.1% in the "agree" or "strongly agree" categories. Furthermore, teammates responded with 71% in the "strongly agree" category and principals responded with 50.7% in the "strongly agree" category. There were no "strongly disagree" participant or principal responses and one "strongly disagree" teammate response. Finally, the overall mean score for vision-setting increased from 11.73 prior to participation to 13. 63 after participation. Teammates' mean results were 14.55 and principals' mean results were 13.81.

Influence. The influence section of the survey consisted of four survey items. The overall patterns in the survey showed that the frequencies and percentages of responses in the "agree" and "strongly agree" categories increased for the participants after completing the training (see Table 16). The percentage of "strongly agree" responses also increased after participation in the training. Prior to participation in the ITL, 87.5% of the responses were in the

Table 15

Combined Results-Oriented/Accountability Frequencies

Respondent Type	Participant Prior to Training		Participant After Training		Participants' Teammate		Participants' Principal	
	f	%	*f*	%	*f*	%	*f*	%
Strongly Disagree	0	0	0	0	1	0.6	0	0
Disagree	36	28.1	5	3.9	9	6	7	5.4
Agree	65	50.8	65	50.8	34	22.4	64	44.4
Strongly Agree	27	21.1	58	45.3	108	71	73	50.7
Total	128	100	128	100	152	100	144	100
Overall Mean Score	11.73		13.63		14.55		13.81	

Table 16

Combined Influence Frequencies

Respondent Type	Participant Prior to Training		Participant After Training		Participants' Teammate		Participants' Principal	
	f	%	*f*	%	*f*	%	*f*	%
Strongly Disagree	0	0	0	0	1	0.7	0	0
Disagree	16	12.5	2	1.6	1	0.7	7	4.9
Agree	85	66.4	64	50	55	36.4	60	41.7
Strongly Agree	27	21.1	62	48.4	94	62.3	77	53.5
Total	128	100	128	100	151	100	144	100
Overall Mean Score	12.30		13.97		14.42		13.81	

"agree" and "strongly agree" categories. However, after participation in the ITL, 98.4% of the responses were in the "agree" or "strongly agree". Furthermore, 21.1% of participants answered "strongly agree" prior to the training and 48.4% of the participants answered "strongly agree" after the training opportunity.

The responses for the participants after training were similar to the teammates' responses and the principals' responses. The teammates answered with 98.7% in the "agree" or "strongly agree" categories and the principals answered with 95.2% in the "agree" or "strongly agree" categories. Furthermore, teammates responded with 62.3% in the "strongly agree" category and principals responded with 53.5% in the "strongly agree" category. There were no "strongly disagree" responses from participants or principals and one strongly "disagree" response from teammates. Finally, the overall mean score for vision-setting increased from 12.30 prior to participation to 13. 97 after participation. Teammates' mean results were 14.42 and principals' mean results were 13.81.

Knowledge/ability. There were four survey items analyzed for knowledge/ability. The overall patterns in the survey showed that the frequencies and percentages of responses in the "agree" and "strongly agree" categories increased for the participants after completing the training (see Table 17). The percentage of "strongly agree" responses also increased after participation in the training. Prior to participation in the ITL, 84.4% of the responses were in the "agree" and "strongly agree" categories. However, after participation in the ITL, 94.5% of the responses were in the "agree" or "strongly agree". Furthermore, 29.9 % of participants answered "strongly agree" prior to the training and 52.3% of the participants answered "strongly agree" after the training opportunity.

Table 17

Combined Knowledge/Ability Frequencies

Respondent Type	Participant Prior to Training		Participant After Training		Participants' Teammate		Participants' Principal	
	f	%	*f*	%	*f*	%	*f*	%
Strongly Disagree	1	0.8	0	0	0	0	1	0.7
Disagree	19	15	7	5.5	7	4.6	12	8.3
Agree	69	54.3	54	42.2	37	24.3	56	38.9
Strongly Agree	38	29.9	67	52.3	108	71.1	75	52.1
Total	127	100	128	100	152	100	144	100
Overall Mean Score	12.37		13.80		14.66		13.65	

The responses for the participants after training were similar to the teammates' responses and the principals' responses. The teammates answered with 95.4% in the "agree" or "strongly agree" categories and the principals answered with 91.0% in the "agree" or "strongly agree" categories. Furthermore, teammates responded with 71.1% in the "strongly agree" category and principals responded with 52.1% in the "strongly agree" category. There was one "strongly disagree" participant and principal response and no "strongly disagree" teammate responses. Finally, the overall mean score for vision-setting increased from 12.37 prior to participation to 13. 80 after participation. Teammates mean results were 14.66 and principals mean results were 13.65.

Ethics. There were four survey items analyzed for ethics. The overall patterns in the survey showed that the frequencies and percentages of responses in the "agree" and "strongly agree" categories increased for the participants after completing the training (see Table 18). The percentage of strongly agree responses also increased after participation in the training. Prior to participation in the ITL, 92.2% of the responses were in the "agree" and "strongly agree" categories. However, after participation in the ITL, 98.5% of the responses were in the "agree" or "strongly agree". Furthermore, 35.9% of participants answered "strongly agree" prior to the training and 54.7% of the participants answered "strongly agree" after the training opportunity. The ethics theme received the highest percentage of "agree" and "strongly agree" responses from participants prior to the training and after the training.

The responses for the participants after training were similar to the teammates' responses and the principals' responses. The teammates answered with 97.4% in the "agree" or "strongly agree" categories and the principals answered with 98.6% in the "agree" or "strongly agree" categories. Furthermore, teammates responded with 73.7% in the "strongly agree" category and

Table 18

Combined Ethics Frequencies

Respondent Type	Participant Prior to Training		Participant After Training		Participants' Teammate		Participants' Principal	
	f	%	*f*	%	*f*	%	*f*	%
Strongly Disagree	0	0	0	0	0	0	0	0
Disagree	10	7.8	2	1.6	4	2.6	2	1.4
Agree	72	56.3	56	43.8	36	23.7	43	30.7
Strongly Agree	46	35.9	70	54.7	112	73.7	95	67.9
Total	128	100	128	100	152	100	140	100
Overall Mean Score	13.13		14.30		14.84		14.67	

principals responded with 50.7% in the "strongly agree" category. There were no "strongly disagree" participant, teammate, or principal responses. Finally, the overall mean score for vision-setting increased from 13.13 prior to participation to 14.30 after participation. Teammates mean results were 14.84 and principals mean results were 14.67.

Collaboration. There were four survey items analyzed for collaboration (see Table 17). The overall patterns in the survey showed that the frequencies and percentages of responses in the "agree" and "strongly agree" categories increased for the participants after completing the training (see Table 19). The percentage of "strongly agree" responses also increased after participation in the training. Prior to participation in the ITL, 93.8% of the responses were in the "agree" and "strongly agree" categories. However, after participation in the ITL, 99.2% of the responses were in the "agree" or "strongly agree" categories. Furthermore, 30.5% of participants answered "strongly agree" prior to the training and 69.5% of the participants answered "strongly agree" after the training opportunity.

The responses for the participants after training were similar to the teammates' responses and the principals' responses. The teammates answered with 98% in the "agree" or "strongly agree" categories and the principals answered with 95.1% in the "agree" or "strongly agree" categories. Furthermore, teammates responded with 72.8% in the "strongly agree" category and principals responded with 60.1% in the "strongly agree" category. There were no "strongly disagree" participant or principal responses and one "strongly disagree" teammate response. Finally, the overall mean score for vision-setting increased from 12.80 prior to participation to 14.73 after participation. Teammates mean results were 14.82 and principals mean results were 14.23.

Table 19

Combined Collaboration Frequencies

Respondent Type	Participant Prior to Training		Participant After Training		Participants' Teammate		Participants' Principal	
	f	%	*f*	%	*f*	%	*f*	%
Strongly Disagree	0	0	0	0	1	0.7	0	0
Disagree	8	6.3	1	0.8	2	1.3	7	4.9
Agree	81	63.3	38	29.7	38	25.2	50	35
Strongly Agree	39	30.5	89	69.5	110	72.8	86	60.1
Total	128	100	128	100	151	100	143	100
Overall Mean Score	12.80		14.73		14.82		14.23	

Analysis of Relationships from the Survey

In order to gain an understanding of the effectiveness of the Institute for Teacher Leaders (ITL), the relationships between the perceptions of participants' leadership abilities were examined from the ITL participants, their teammates, and their principals. A series of twenty-two Fisher's Exact Tests were conducted on the questions to determine if there was a significant relationship. The tests aligned to each of the six themes of leadership. Analyses were created by aggregating the survey items from each of the six themes of leadership for the research questions. Response categories were combined and converted into categorical variables so the Fisher's Exact Tests could be computed. By analyzing the relationships, multiple perspectives were gained on the impact of the ITL on the perceived leadership abilities of the participants.

The three Research Questions were examined by evaluating the results of the Fisher's Exact Test. The analysis of the ITL participant's perceived leadership abilities were aligned to each of the six themes of leadership individually and combined as a whole. The analysis gained from the survey results and the tests were discussed in-depth for each of the research questions.

Research Question 1

Research question one examined the relationship between the perceptions of ITL participants' leadership abilities prior to the training experience and their perception of their abilities after completion of the ITL. The evaluation was based on their overall scores for leadership as a whole and within each of the individual themes. A Fisher's Exact Test was computed to examine whether the responses of the participants showed that a relationship between the perception prior to training for leadership abilities and the perception after training for leadership abilities of the participants existed.

The Fisher's Exact Test created a 2 x 2 contingency table that measured the relationship between respondents' level of agreement (i.e., yes or no responses) regarding their sense of overall leadership and within each of the six themes prior to and after training.

Analysis of the relationships of overall leadership abilities. A "yes" value was determined by the number of respondents that had at least five of the individual themes of leadership scored at twelve or more. Therefore, an individual "yes" value designated that an individual respondent had a positive perception of the ITL participant's leadership abilities in five or six of the themes of leadership. A "no" value designated that an individual respondent had a positive perception of the ITL participant's leadership ability in four or fewer of the six themes of leadership, which would signify that the participant was perceived to have positive leadership abilities in 66% or less of the themes. It was determined that 66% was too low for the participant to be considered to have a positive perception of their ability.

In determining the relationship between the perception of leadership abilities prior to training and perception of leadership abilities after training for the overall leadership abilities for the ITL participants, a contingency table was created for the Fisher's Exact Test (see Table 20). The total number of respondents for the test was thirty (n=30).

A statistically significant relationship did not exist between the participant perception prior to training and the participant perception after training of combined leadership abilities. The test did not reveal a significant relationship ($x2 = 1.182$ (1), $p = .467$). The pattern of responses in the table reflected that participants reported high levels of agreement (i.e., yes responses) after training regardless of prior perceptions.

Table 20

Contingency Table for Participants' Perception Prior to Training and Perception After Training of Combined Leadership Abilities

Perception Prior to Training of Combined Leadership Abilities	Perception After Training of Combined Leadership Abilities		
	No	Yes	Total
No	1	13	14
Yes	0	16	16
Total	1	29	30

Analysis of the relationships of individual themes. For research question number one, each of the six individual themes were analyzed using Fisher's Exact Tests to determine if there was a relationship between the ITL participants' perception prior to taking the training and participants' perception after the training. The goal was to determine if participants' leadership abilities improved in any of the six themes of leadership.

A "yes" value was determined by the number of respondents that had a combined score of twelve or greater on the four individual survey items within each theme. Twelve was the cut score for determination of a positive perception of leadership abilities. A "no" value designated that an individual respondent had responses of eleven or less. Twelve was chosen as the cut score for a "yes" because this is the score that results in an average of "agree" for all four questions within each theme.

Vision-setting. In determining the relationship between the ILT participants' perception of leadership abilities prior to training and perception of leadership abilities after training for vision-setting, a contingency table was created for the Fisher's Exact Test (see Table 21). The total number of respondents for the test was thirty (n=30).

A statistically significant relationship did not exist between the participant perception prior to training and the participant perception after training vision setting. The test did not reveal a significant relationship ($x2 = 2.84$ (1), $p=0.267$). The pattern of responses in the table reflected that participants reported high levels of agreement (i.e., yes responses) after training regardless of prior perceptions.

Results-oriented/accountability. In determining the relationship between the ILT participants' perception of leadership abilities prior to training and perception of leadership abilities after training for results-oriented/accountability, a contingency table was created for

Table 21

Contingency Table for Participants' Perception of Vision-Setting Prior to Training and Perception After Training

Perception Prior to Training of Vision-Setting Abilities	Perception After Training of Vision-Setting Abilities		
	No	Yes	Total
No	1	7	8
Yes	0	22	22
Total	1	29	30

the Fisher's Exact Test (see Table 22). The total number of respondents for the test was thirty (n=30).

A statistically significant relationship did not exist between the participant perception prior to training and the participant perception after training for results-oriented/accountability. The test did not reveal a significant relationship ($x2 = 0.039$ (1), $p=0.687$). The pattern of responses in the table reflected that participants reported high levels of agreement (i.e., yes responses) after training regardless of prior perceptions.

Influence. In determining the relationship between the ILT participants' perception of leadership abilities prior to training and perception of leadership abilities after training for influence, a contingency table was created for the Fisher's Exact Test (see Table 23). The total number of respondents for the test was thirty (n=30).

A statistically significant relationship did not exist between the participant perception prior to training and the participant perception after training for influence. The test did not reveal a significant relationship ($x2 = 2.845$ (1), $p = 0.267$). The pattern of responses in the table reflected that participants reported high levels of agreement (i.e., yes responses) after training regardless of prior perceptions.

Knowledge/ability. In determining the relationship between the ILT participants' perception of leadership abilities prior to training and perception of leadership abilities after training for knowledge/ability, a contingency table was created for the Fisher's Exact Test (see Table 24). The total number of respondents for the test was thirty (n=30).

A statistically significant relationship did not exist between the participant perception prior to training and the participant perception after training for knowledge/ability. The test did not reveal a significant relationship ($x2 = 3.339$ (1), $p = 0.233$). The pattern of responses in the

Table 22

Contingency Table for Participants' Perception of Results-Oriented/Accountability Prior to Training and Perception After Training

Perception Prior to Training of Results-Oriented/Accountability Abilities	Perception After Training of Results-Oriented/Accountability Abilities		
	No	Yes	Total
No	1	12	13
Yes	1	16	17
Total	2	28	30

Table 23

Contingency Table for Participants' Perception of Influence Prior to Training and Perception After Training

Perception Prior to Training of Influence Abilities	Perception After Training of Influence Abilities		
	No	Yes	Total
No	1	7	8
Yes	0	22	22
Total	1	29	30

Table 24

Contingency Table for Participants' Perception of Knowledge/Ability Prior to Training and Perception After Training

Perception Prior to Training of Knowledge/Ability Abilities	Perception After Training of Knowledge/Ability Abilities		
	No	Yes	Total
No	1	6	7
Yes	0	23	23
Total	1	29	30

table reflected that participants reported high levels of agreement (i.e., yes responses) after training regardless of prior perceptions.

Ethics. In determining the relationship between the ILT participants' perception of leadership abilities prior to training and perception of leadership abilities after training for ethics, a contingency table was created for the Fisher's Exact Test (see Table 25). The total number of respondents for the test was thirty (n=30).

A statistically significant relationship did not exist between the participant perception prior to training and the participant perception after training for ethics. The test did not reveal a significant relationship ($x2 = 5.172$ (1), $p = 0.167$). The pattern of responses in the table reflected that participants reported high levels of agreement (i.e., yes responses) after training regardless of prior perceptions.

Collaboration. In determining the relationship between the ILT participants' perception of leadership abilities prior to training and perception of leadership abilities after training for collaboration, a contingency table was created for the Fisher's Exact Test (see Table 26). The total number of respondents for the test was thirty (n=30).

A statistically significant relationship did not exist between the participant perception prior to training and the participant perception after training for collaboration. A Fisher's exact test was unable to compute because the "no" variable was a constant with 0 respondents in that categorical variable. The pattern of responses in the table reflected that participants reported high levels of agreement (i.e., yes responses) after training regardless of prior perceptions.

Table 25

Contingency Table for Participants' Perception of Ethics Prior to Training and Perception After Training

Perception Prior to Training of Ethics Abilities	Perception After Training of Ethics Abilities		
	No	Yes	Total
No	1	4	5
Yes	0	25	25
Total	1	29	30

Table 26

Contingency Table for Participants' Perception of Collaboration Prior to Training and Perception After Training

Perception Prior to Training of Collaboration Abilities	Perception After Training of Collaboration Abilities		
	No	Yes	Total
No	0	3	3
Yes	0	27	27
Total	0	30	30

Research Question 2

Research question two examined the relationship between the perception of the ITL participant's leadership abilities and their teammates' perception of their abilities. In order to determine the significance of the relationship, a series of fourteen Fisher's Exact Tests were computed. A Fisher's Exact Test was computed to examine whether the responses of the respondents showed that a relationship between the perception prior to training for leadership abilities and the teammates' perception after training existed for participants' leadership abilities. Also, Fisher's Exact Tests were computed to examine whether the responses of the participants showed that a relationship between the participants' perception after training and the teammates' perception after training existed for participants' leadership abilities.

The Fisher's Exact Test created a 2 x 2 contingency table that measured the relationship between respondents' level of agreement (i.e., yes or no responses) regarding their sense of overall leadership and within each of the six themes prior to and after training.

Overall leadership. A "yes" value was determined by the number of respondents that had at least five of the individual themes of leadership scored at twelve or more. Therefore, an individual "yes" value designated that an individual respondent had a positive perception of the ITL participant's leadership abilities in five or six of the themes of leadership. A "no" value designated that an individual respondent had a positive perception of the ITL participant's leadership ability in four or fewer of the six themes of leadership, which would signify that the participant was perceived to have positive leadership abilities in 66% or less of the themes. It was determined that 66% was too low for the participant to be considered to have a positive perception of their ability.

Participants' perception prior to training and teammates' perception after training. In determining the overall leadership abilities relationship between the participants' perception prior to training and teammates' perception after training for the ITL participants, a contingency table was created for the Fisher's Exact Test (see Table 27). There were thirty ITL participants and thirty correlating teammates. For the Fisher's Exact Test, thirty total scores were utilized (n = 30). The thirty scores resulted from the pairing of participants prior to training and the correlating teammate after the training perception into each of the variables for the contingency table. For example, a participant prior to training "yes" and a teammate after training "no" resulted in one box of the contingency table.

A statistically significant relationship did not exist between the participants' perception prior to training and the teammates' perception after training of combined leadership abilities. The test did not reveal a significant relationship ($x2 = 2.679$ (1), $p = 0.157$.). The pattern of responses in the table reflected that participants reported high levels of agreement (i.e., yes responses) after training regardless of prior perceptions.

Participants' and teammates' perception after training on combined leadership. In determining the overall leadership abilities relationship between the participants' and teammates' perception after training for the ITL participants, a contingency table was created for the Fisher's Exact Test (see Table 28). The total number of respondents for the test was thirty. There were thirty ITL participants and thirty correlating teammates. For the Fisher's Exact Test, thirty total scores were utilized (n = 30). The thirty scores resulted from the pairing of participant prior to training and the correlating teammate after the training perception into each of the variables for the contingency table. For example, a participant after training "yes" and a teammate after training "no" resulted in one box of the contingency table.

Table 27

Contingency Table for Participants' Perception Prior to Training and Teammates' Perception After Training of Combined Leadership Skills

Participants' Perception Prior to Training of Combined Leadership Skills	Teammates' Perception After Training of Combined Leadership Skills		
	No	Yes	Total
No	4	10	14
Yes	1	15	16
Total	5	25	30

Table 28

Contingency Table for Participants' Perception After Training and Teammates' Perception After Training of Combined Leadership Skills

Participants' Perception After to Training of Combined Leadership Skills	Teammates' Perception After Training of Combined Leadership Skills		
	No	Yes	Total
No	0	1	1
Yes	5	24	29
Total	5	25	30

A statistically significant relationship did not exist between the participants' perception after training and the teammates' perception after training of combined leadership abilities. The test did not reveal a significant relationship ($x2 = 0.207$ (1), $p = 1.000$.). The pattern of responses in the table reflected that participants reported high levels of agreement (i.e., yes responses) after training regardless of prior perceptions.

Analysis of the relationships of individual themes. For research question number two, each of the six individual themes were analyzed using Fisher's Exact Tests. The tests were used to determine if there was a relationship between the ITL participants' perception prior to taking the training and their teammates' perception after the training. Also, Fisher's Exact Tests were computed to determine if there was a relationship between the ITL participants' perception after taking the training and their teammate' perception after the training.

A "yes" value was determined by the number of respondents that had a combined score of twelve or greater on the four individual survey items within each theme. Twelve was the cut score for determination of a positive perception of leadership abilities. A "no" value designated that an individual respondent had a score of eleven or less. Twelve was chosen as the cut score for a positive because this is the score that results in an average of "agree" for all four questions within each theme.

Vision-setting. In determining the vision-setting abilities relationship between the participants' perception prior to training and teammates' perception after training for the ITL participants, a contingency table was created for the Fisher's Exact Test (see Table 29). The total number of respondents for the test was sixty. There were thirty ITL participants and thirty correlating teammates. For the Fisher's Exact Test, thirty total scores were utilized ($n = 30$).

Table 29

Contingency Table for Participants' Perception Prior to Training and Teammates' Perception After Training of Vision-Setting

Participants' Perception Prior to Training of Vision-Setting	Teammates' Perception After Training of Vision-Setting		
	No	Yes	Total
No	2	6	8
Yes	0	22	22
Total	2	28	30

A statistically significant relationship did not exist between the participants' perception prior to training and the participant perception after training of vision setting. The test did not reveal a significant relationship ($x2 = 5.893$ (1), $p=0.064$). The pattern of responses in the table reflected that participants reported high levels of agreement (i.e., yes responses) after training regardless of prior perceptions.

In determining the vision-setting abilities relationship between the participants' and teammates' perception after training for the ITL participants, a contingency table was created for the Fisher's Exact Test (see Table 30). The total number of respondents for the test was sixty. There were thirty ITL participants and thirty correlating teammates. For the Fisher's Exact Test, thirty total scores were utilized ($n = 30$).

A statistically significant relationship did not exist between the participants' and teammates' perception after training of vision setting. The test did not reveal a significant relationship ($x2 = 14.483$ (1), $p=0.067$). The pattern of responses in the table reflects that participants reported high levels of agreement (i.e., yes responses) after training regardless of prior perceptions.

Results-oriented/accountability. In determining the results-oriented/accountability abilities relationship between the participants' perception prior to training and teammates' perception after training for the ITL participants, a contingency table was created for the Fisher's Exact Test (see Table 31). The total number of respondents for the test was sixty. There were thirty ITL participants and thirty correlating teammates. For the Fisher's Exact Test, thirty total scores were utilized ($n = 30$).

Table 30

Contingency Table for Participants' Perception After Training and Teammates' Perception After Training of Vision-Setting

Participants' Perception After Training of Vision-Setting	Teammates' Perception After Training of Vision-Setting		
	No	Yes	Total
No	1	0	1
Yes	1	28	29
Total	2	28	30

Table 31

Contingency Table for Participants' Perception Prior to Training and Teammates' Perception After Training of Results-Oriented/Accountability

Participants' Perception Prior to Training of Results-Oriented/Accountability	Teammates' Perception After Training of Results-Oriented/Accountability		
	No	Yes	Total
No	4	9	13
Yes	1	16	17
Total	5	25	30

A statistically significant relationship did not exist between the participants' perception prior to training and the participant perception after training for results-oriented/accountability. ($x2 = 3.285$ (1), $p=0.138$). The pattern of responses in the table reflected that participants reported high levels of agreement (i.e., yes responses) after training regardless of prior perceptions.

In determining the results-oriented/accountability abilities relationship between the participants' and teammates' perception after training for the ITL participants, a contingency table was created for the Fisher's Exact Test (see Table 32). The total number of respondents for the test was sixty. There were thirty ITL participants and thirty correlating teammates. For the Fisher's Exact Test, thirty total scores were utilized ($n = 30$).

A statistically significant relationship did not exist between the participants' and teammates' perception after training of results-oriented/accountability ($x2 = 1.714$ (1), $p=0.310$). The pattern of responses in the table reflected that participants reported high levels of agreement (i.e., yes responses) after training regardless of prior perceptions.

Influence. In determining the influence abilities relationship between the participants' perception prior to training and teammates' perception after training for the ITL participants, a contingency table was created for the Fisher's Exact Test (see Table 33). The total number of respondents for the test was sixty. There were thirty ITL participants and thirty correlating teammates. For the Fisher's Exact Test, thirty total scores were utilized ($n = 30$).

A statistically significant relationship did not exist between the participants' perception prior to training and the participant perception after training for influence ($x2 = 0.376$ (1), $p = 1.000$). The pattern of responses in the table reflected that participants reported high levels of agreement (i.e., yes responses) after training regardless of prior perceptions.

Table 32

Contingency Table for Participants' Perception After Training and Teammates' Perception After Training of Results Oriented/Accountability

Post-Perception of Results Oriented/Accountability	Teammates' Perception of Results Oriented/Accountability		
	No	Yes	Total
No	1	1	2
Yes	4	24	28
Total	5	25	30

Table 33

Contingency Table for Participants' Perception Prior to Training and Teammates' Perception After Training of Influence

Participants' Perception Prior to Training of Influence	Teammates' Perception After Training of Influence		
	No	Yes	Total
No	0	8	8
Yes	1	21	22
Total	1	29	30

In determining the influence abilities relationship between the participants' and teammates' perception after training for the ITL participants, a contingency table was created for the Fisher's Exact Test (see Table 34). The total number of respondents for the test was sixty. There were thirty ITL participants and thirty correlating teammates. For the Fisher's Exact Test, thirty total scores were utilized (n = 30).

A statistically significant relationship did not exist between the participants' and teammates' perception after training of influence ($x2 = 0.36$ (1), $p = 1.000$). The pattern of responses in the table reflected that participants reported high levels of agreement (i.e., yes responses) after training regardless of prior perceptions.

Ethics. In determining the ethics abilities relationship between the participants' perception prior to training and teammates' perception after training for the ITL participants, a contingency table was created for the Fisher's Exact Test (see Table 35). The total number of respondents for the test was sixty. There were thirty ITL participants and thirty correlating teammates. For the Fisher's Exact Test, thirty total scores were utilized (n = 30).

A statistically significant relationship did not exist between the participants' perception prior to training and the participant perception after training for ethics. The test did not reveal a significant relationship ($x2 = 0.429$ (1), $p = 1.000$). The pattern of responses in the table reflected that participants reported high levels of agreement (i.e., yes responses) after training regardless of prior perceptions.

In determining the ethics abilities relationship between the participants' and teammates' perception after training for the ITL participants, a contingency table was created for the Fisher's Exact Test (see Table 36). The total number of respondents for the test was sixty. There were

Table 34

Contingency Table for Participants' Perception After Training and Teammates' Perception After Training of Influence

Participants' Perception After Training of Influence	Teammates' Perception After Training of Influence		
	No	Yes	Total
No	0	1	1
Yes	1	28	29
Total	1	29	30

Table 35

Contingency Table for Participants' Perception Prior to Training and Teammates' Perception After Training of Ethics

Participants' Perception Prior to Training of Ethics	Teammates' Perception After Training of Ethics		
	No	Yes	Total
No	0	5	5
Yes	2	23	25
Total	2	28	30

Table 36

Contingency Table for Participants' Perception After Training and Teammates' Perception After Training of Ethics

Participants' Perception After Training of Ethics	Teammates' Perception After Training of Ethics		
	No	Yes	Total
No	0	1	1
Yes	2	27	29
Total	2	28	30

thirty ITL participants and thirty correlating teammates. For the Fisher's Exact Test, thirty total scores were utilized (n = 30).

A statistically significant relationship did not exist between the participants' and teammates' perception after training of ethic (x2 = 0.074 (1), p = 1.000). The pattern of responses in the table reflected that participants reported high levels of agreement (i.e., yes responses) after training regardless of prior perceptions.

Knowledge/ability. In determining the knowledge/ability abilities relationship between the participants' perception prior to training and teammates' perception after training for the ITL participants, a contingency table was created for the Fisher's Exact Test (see Table 37). The total number of respondents for the test was sixty. There were thirty ITL participants and thirty correlating teammates. For the Fisher's Exact Test, thirty total scores were utilized (n = 30). The thirty scores resulted from the pairing of participant prior to training and the correlating teammate after the training perception into each of the variables for the contingency table. For example, a participant prior to training "yes" and a teammate after training "no" resulted in one box of the contingency table.

A statistically significant relationship did not exist between the participants' perception prior to training and the participant perception after training for knowledge/ability (x2 = 0.186 (1), p = 1.000). The pattern of responses in the table reflected that participants reported high levels of agreement (i.e., yes responses) after training regardless of prior perceptions.

In determining the knowledge/ability abilities relationship between the participants' and teammates' perception after training for the ITL participants, a contingency table was created for the Fisher's Exact Test (see Table 38). The total number of respondents for the test was the Fisher's Exact Test (see Table 38). The total number of respondents for the test was sixty. There

Table 37

Contingency Table for Participants' Perception Prior to Training and Teammates' Perception After Training of Knowledge/Ability

Participants' Perception Prior to Training of Knowledge/Ability	Teammates' Perception After Training of Knowledge/Ability		
	No	Yes	Total
No	1	6	7
Yes	2	21	23
Total	3	27	30

Table 38

Contingency Table for Participants' Perception After Training and Teammates' Perception After Training of Knowledge/Ability

Participants' Perception After Training of Knowledge/Ability	Teammates' Perception After Training of Knowledge/Ability		
	No	Yes	Total
No	0	1	1
Yes	3	26	29
Total	3	27	30

were thirty ITL participants and thirty correlating teammates. For the Fisher's Exact Test, thirty total scores were utilized (n = 30).

A statistically significant relationship did not exist between the participants' and teammates' perception after training of knowledge/ability (x2 = 0.115 (1), p = 1.000). The pattern of responses in the table reflected that participants reported high levels of agreement (i.e., yes responses) after training regardless of prior perceptions.

Collaboration. In determining the collaboration abilities relationship between the participants' perception prior to training and teammates' perception after training for the ITL participants, a contingency table was created for the Fisher's Exact Test (see Table 39). The total number of respondents for the test was sixty. There were thirty ITL participants and thirty correlating teammates. For the Fisher's Exact Test, thirty total scores were utilized (n = 30).

A statistically significant relationship did not exist between the participants' perception prior to training and the participant perception after training for collaboration (x2 = 0.238 (1), p = 1.000). The pattern of responses in the table reflected that participants reported high levels of agreement (i.e., yes responses) after training regardless of prior perceptions.

In determining the collaboration abilities relationship between the participants' and teammates' perception after training for the ITL participants, a contingency table was created for the Fisher's Exact Test (see Table 40). The total number of respondents for the test was sixty. There were thirty ITL participants and thirty correlating teammates. For the Fisher's Exact Test, thirty total scores were utilized (n = 30).

A Fisher's exact test was unable to compute because the "no" variable was a constant with 0 respondents in that categorical variable. The pattern of responses in the table reflected that

Table 39

Contingency Table for Participants' Perception Prior to Training and Teammates' Perception After Training of Collaboration

Participants' Perception Prior to Training of Collaboration	Teammates' Perception After Training of Collaboration		
	No	Yes	Total
No	0	3	2
Yes	2	25	28
Total	2	28	30

Table 40

Contingency Table for Participants' Perception After Training and Teammates' Perception After Training of Collaboration

Post-Perception of Collaboration	Teammate Perception of Collaboration		
	No	Yes	Total
No	0	2	2
Yes	0	28	28
Total	0	30	30

participants reported high levels of agreement (i.e., yes responses) after training regardless of prior perceptions.

Research Question 3

Research question three examined the relationship between the perception of the ITL participant's leadership abilities and their principals' perception of their abilities. In order to determine the significance of the relationship, a series of fourteen Fisher's Exact Tests were computed. The Fisher's Exact Tests were examined to determine if a relationship existed between the participants' perception prior to training and the principals' perception after training for participants' leadership abilities. Also, Fisher's Exact Tests were computed to examine whether the responses of the participants showed that a relationship between the participants' perception after training and the principals' perception after training existed for participants' leadership abilities.

The Fisher's Exact Test created a 2 x 2 contingency table that measured the relationship between respondents' level of agreement (i.e., yes or no responses) regarding their sense of overall leadership and within each of the six themes prior to and after training.

Overall leadership. A "yes" value was determined by the number of respondents that had at least five of the individual themes of leadership scored at twelve or more. Therefore, an individual "yes" value designates that an individual respondent had a positive perception of the ITL participant's leadership abilities in five or six of the themes of leadership. A "no" value designated that an individual respondent had a positive perception of the ITL participant's leadership ability in four or fewer of the six themes of leadership, which would signify that the participant was perceived to have positive leadership abilities in 66% or less of the themes. It

was determined that 66% was too low for the participant to be considered to have a positive perception of their ability.

In determining the relationship between the participants' perception of leadership abilities prior to training and principals' perception of leadership abilities after training for the overall leadership abilities for the ITL participants, a contingency table was created for the Fisher's Exact Test (see Table 41). The total number of respondents for the test was sixty. There were thirty ITL participants and thirty correlating principals. For the Fisher's Exact Test, thirty total scores were utilized (n = 30).

A statistically significant relationship did not exist between the participants' perception prior to training and the principals' perception after training of combined leadership abilities ($x2 = 0.536$ (1), $p = 0.586$). The pattern of responses in the table reflected that participants reported high levels of agreement (i.e., yes responses) after training regardless of prior perceptions.

In determining the relationship between the participants' perception of leadership abilities after training and the principals' perception of leadership abilities after training for the overall leadership abilities for the ITL participants, a contingency table was created for the Fisher's Exact Test (see Table 42). The total number of respondents for the test was sixty. There were thirty ITL participants and thirty correlating principals. For the Fisher's Exact Test, thirty total scores were utilized (n = 30).

A statistically significant relationship did not exist between the participant perception after training and the principal perception after training of combined leadership abilities ($x2 = 0.115$ (1), $p = 1.000$). The pattern of responses in the table reflected that participants reported high levels of agreement (i.e., yes responses) after training regardless of prior perceptions.

Table 41

Contingency Table for Participants' Perception Prior to Training and Principals' Perception After Training of Combined Leadership Skills

Participants' Perception Prior to Training of Combined Leadership Skills	Principals' Perception After Training of Combined Leadership Skills		
	No	Yes	Total
No	2	12	14
Yes	1	15	16
Total	3	27	30

Table 42

Contingency Table for Participants' Perception After Training and Principals' Perception After Training of Combined Leadership Skills

Participants' Perception After Training of Combined Leadership Skills	Principals' Perception After Training of Combined Leadership Skills		
	No	Yes	Total
No	0	1	1
Yes	3	26	29
Total	3	27	30

Analysis of the relationships of individual themes. For research question number three, each of the six individual themes were analyzed using Fisher's Exact Tests to determine if there was a relationship between the ITL participants' perception prior to taking the training and their principals' perception after the training. Also, Fisher's Exact Tests were computed to determine if there was a relationship between the ITL participants' perception after taking the training and their principals' perception after the training.

A "yes" value was determined by the number of respondents that had a combined score of twelve or greater on the four individual survey items within each theme. Twelve was the cut score for determination of a positive perception of leadership abilities. A "no" value designated that an individual respondent had a score of eleven or less. Twelve was chosen as the cut score for a positive because this is the score that results in an average of "agree" for all four questions within each theme.

Vision-setting. In determining the vision-setting abilities relationship between the participants' perception prior to training and principals' perception after training for the ITL participants, a contingency table was created for the Fisher's Exact Test (see Table 43). The total number of respondents for the test was sixty. There were thirty ITL participants and thirty correlating teammates. For the Fisher's Exact Test, thirty total scores were utilized (n = 30). The thirty scores resulted from the pairing of participant prior to training and the correlating teammate after the training perception into each of the variables for the contingency table. For example, a participant prior to training "yes" and a teammate after training "no" resulted in one box of the contingency table.

Table 43

Contingency Table for Participants' Perception Prior to Training and Principals' Perception After Training of Vision-Setting

Participants' Perception Prior to Training of Vision-Setting	Principals' Perception After Training of Vision-Setting		
	No	Yes	Total
No	0	8	8
Yes	2	20	22
Total	2	28	30

A statistically significant relationship did not exist between the participants' perception prior to training and the participant perception after training of vision setting ($x2 = 0.779$ (1), $p = 1.000$). The pattern of responses in the table reflected that participants reported high levels of agreement (i.e., yes responses) after training regardless of prior perceptions.

In determining the vision-setting abilities relationship between the participants' and teammates' perception after training for the ITL participants, a contingency table was created for the Fisher's Exact Test (see Table 44). The total number of respondents for the test was sixty. There were thirty ITL participants and thirty correlating teammates. For the Fisher's Exact Test, thirty total scores were utilized ($n = 30$).

A statistically significant relationship did not exist between the participants' and teammates' perception after training of vision setting ($x2 = 0.074$ (1), $p = 1.000$). The pattern of responses in the table reflected that participants reported high levels of agreement (i.e., yes responses) after training regardless of prior perceptions.

Results-oriented/accountability. In determining the results-oriented/accountability abilities relationship between the participants' perception prior to training and principals' perception after training for the ITL participants, a contingency table was created for the Fisher's Exact Test (see Table 45). The total number of respondents for the test was sixty. There were thirty ITL participants and thirty correlating teammates. For the Fisher's Exact Test, thirty total scores were utilized ($n = 30$).

A statistically significant relationship did not exist between the participants' perception prior to training and the participant perception after training of results-oriented/accountability ($x2 = 0.632$ (1), $p = 0.613$). The pattern of responses in the table reflected that participants

Table 44

Contingency Table for Participants' Perception After Training and Principals' Perception After Training of Vision-Setting

Participants' Perception After Training of Vision-Setting	Principals' Perception After Training of Vision-Setting		
	No	Yes	Total
No	0	1	1
Yes	2	27	29
Total	2	28	30

Table 45

Contingency Table for Participants' Perception Prior to Training and Principals' Perception After Training of Results-Oriented/Accountability

Participants' Perception Prior to Training of Results-Oriented/Accountability	Principals' Perception After Training of Results-Oriented/Accountability		
	No	Yes	Total
No	1	12	13
Yes	3	14	17
Total	4	26	30

reported high levels of agreement (i.e., yes responses) after training regardless of prior perceptions.

In determining the results-oriented/accountability abilities relationship between the participants' and teammates' perception after training for the ITL participants, a contingency table was created for the Fisher's Exact Test (see Table 46). The total number of respondents for the test was sixty. There were thirty ITL participants and thirty correlating teammates. For the Fisher's Exact Test, thirty total scores were utilized (n = 30).

A statistically significant relationship did not exist between the participants' and teammates' perception after training of results-oriented/accountability ($x2 = 0.330$ (1), $p = 1.000$). The pattern of responses in the table reflected that participants reported high levels of agreement (i.e., yes responses) after training regardless of prior perceptions.

Influence. In determining the influence abilities relationship between the participants' perception prior to training and principals' perception after training for the ITL participants, a contingency table was created for the Fisher's Exact Test (see Table 47). The total number of respondents for the test was sixty. There were thirty ITL participants and thirty correlating teammates. For the Fisher's Exact Test, thirty total scores were utilized (n = 30).

A statistically significant relationship did not exist between the participants' perception prior to training and the participant perception after training of influence ($x2 = 5.893$ (1), $p = 0.064$). The pattern of responses in the table reflected that participants reported high levels of agreement (i.e., yes responses) after training regardless of prior perceptions.

In determining the influence abilities relationship between the participants' and teammates' perception after training for the ITL participants, a contingency table was created for

Table 46

Contingency Table for Participants' Perception After Training and Principals' Perception After Training of Results-Oriented/Accountability

Participants' Perception After Training of Results-Oriented/Accountability	Principals' Perception After Training of Results-Oriented/Accountability		
	No	Yes	Total
No	0	2	2
Yes	4	24	28
Total	4	26	30

Table 47

Contingency Table for Participants' Perception Prior to Training and Principals' Perceptions After Training of Influence

Participants' Perception Prior to Training of Influence	Principals' Perception After Training of Influence		
	No	Yes	Total
No	0	2	2
Yes	4	24	28
Total	4	26	30

the Fisher's Exact Test (see Table 48). The total number of respondents for the test was sixty. There were thirty ITL participants and thirty correlating teammates. For the Fisher's Exact Test, thirty total scores were utilized (n = 30).

A statistically significant relationship did not exist between the participants' and teammates' perception after training of influence (x2 = 0.074 (1), p = 1.000). The pattern of responses in the table reflected that participants reported high levels of agreement (i.e., yes responses) after training regardless of prior perceptions.

Ethics. In determining the ethics abilities relationship between the participants' perception prior to training and principals' perception after training for the ITL participants, a contingency table was created for the Fisher's Exact Test (see Table 49). The total number of respondents for the test was sixty. There were thirty ITL participants and thirty correlating teammates. For the Fisher's Exact Test, thirty total scores were utilized (n = 30).

A statistically significant relationship did not exist between the participants' perception prior to training and the participant perception after training of ethics (x2 = 5.172 (1), p = 0.167). The pattern of responses in the table reflected that participants reported high levels of agreement (i.e., yes responses) after training regardless of prior perceptions.

In determining the ethics abilities relationship between the participants' and teammates' perception after training for the ITL participants, a contingency table was created for the Fisher's Exact Test (see Table 50). The total number of respondents for the test was sixty. There were thirty ITL participants and thirty correlating teammates. For the Fisher's Exact Test, thirty total scores were utilized (n = 30).

A statistically significant relationship did not exist between the participants' and teammates' perception after training of ethics (x2 = 0.036 (1), p = 1.000). The pattern of

Table 48

Contingency Table for Participants' Perception After training and Principals' Perceptions After Training of Influence

Participants' Perception After to Training of Influence	Principals' Perception After Training of Influence		
	No	Yes	Total
No	0	1	1
Yes	2	27	29
Total	2	28	30

Table 49

Contingency Table for Participants' Perception Prior to Training and Principals' Perceptions After Training of Ethics

Participants' Perception Prior to Training of Ethics	Principals' Perception After Training of Ethics		
	No	Yes	Total
No	1	4	5
Yes	0	25	25
Total	1	29	30

Table 50

Contingency Table for Participants' Perception After Training and Principals' Perception After Training of Ethics

Participants' Perception After to Training of Ethics	Principals' Perception After Training of Ethics		
	No	Yes	Total
No	0	1	1
Yes	1	28	29
Total	1	29	30

responses in the table reflected that participants reported high levels of agreement (i.e., yes responses) after training regardless of prior perceptions.

Knowledge/ability. In determining the knowledge/ability abilities relationship between the participants' perception prior to training and principals' perception after training for the ITL participants, a contingency table was created for the Fisher's Exact Test (see Table 51). The total number of respondents for the test was sixty. There were thirty ITL participants and thirty correlating teammates. For the Fisher's Exact Test, thirty total scores were utilized (n = 30). The thirty scores resulted from the pairing of participant prior to training and the correlating teammate after the training perception into each of the variables for the contingency table. For example, a participant prior to training "yes" and a teammate after training "no" resulted in one box of the contingency table.

A statistically significant relationship did not exist between the participants' perception prior to training and the participant perception after training of knowledge/ability ($x2 = 1.835$ (1), $p = 0.225$). The pattern of responses in the table reflected that participants reported high levels of agreement (i.e., yes responses) after training regardless of prior perceptions.

In determining the knowledge/ability abilities relationship between the participants' and teammates' perception after training for the ITL participants, a contingency table was created for the Fisher's Exact Test (see Table 52). The total number of respondents for the test was sixty. There were thirty ITL participants and thirty correlating teammates. For the Fisher's Exact Test, thirty total scores were utilized (n = 30).

A statistically significant relationship did not exist between the participants' and teammates' perception after training of knowledge/ability ($x2 = 0.159$ (1), $p = 1.000$). The

Table 51

Contingency Table for Participants' Perception Prior to Training and Principals' Perception After Training of Knowledge/Ability

Participants' Perception Prior to Training of Knowledge/Ability	Principals' Perception After Training of Knowledge/Ability		
	No	Yes	Total
No	2	5	7
Yes	2	21	23
Total	4	26	30

Table 52

Contingency Table for Participants' Perception After Training and Principals' Perception After Training of Knowledge/Ability

Participants' Perception After Training of Knowledge/Ability	Principals' Perception After Training of Knowledge/Ability		
	No	Yes	Total
No	0	1	1
Yes	4	25	29
Total	4	26	30

pattern of responses in the table reflected that participants reported high levels of agreement (i.e., yes responses) after training regardless of prior perceptions.

Collaboration. In determining the collaboration abilities relationship between the participants' perception prior to training and principals' perception after training for the ITL participants, a contingency table was created for the Fisher's Exact Test (see Table 53). The total number of respondents for the test was sixty. There were thirty ITL participants and thirty correlating teammates. For the Fisher's Exact Test, thirty total scores were utilized (n = 30).

A statistically significant relationship did not exist between the participants' perception prior to training and the participant perception after training of collaboration ($x2 = 0.238$ (1), $p = 1.000$). The pattern of responses in the table reflected that participants reported high levels of agreement (i.e., yes responses) after training regardless of prior perceptions.

In determining the collaboration abilities relationship between the participants' and teammates' perception after training for the ITL participants, a contingency table was created for the Fisher's Exact Test (see Table 54). The total number of respondents for the test was sixty. There were thirty ITL participants and thirty correlating teammates. For the Fisher's Exact Test, thirty total scores were utilized (n = 30).

A Fisher's exact test was unable to compute because the "no" variable was a constant with 0 respondents in that categorical variable. The pattern of responses in the table reflected that participants reported high levels of agreement (i.e., yes responses) after training regardless of prior perceptions.

Summary

The purpose of this study was to examine the effects of a district training program for teacher leaders on the leadership behaviors demonstrated by the participating teachers. The study

Table 53

Contingency Table for Participants' Perception Prior to Training and Principals' Perception After Training of Collaboration

Participants' Perception Prior to Training of Collaboration	Principals' Perception After Training of Collaboration		
	No	Yes	Total
No	0	3	3
Yes	2	25	27
Total	2	28	30

Table 54

Contingency Table for Participants' Perception After Training and Principals' Perception After Training of Collaboration

Participants' Perception After Training of Collaboration	Principals' Perception After Training of Collaboration		
	No	Yes	Total
No	0	2	2
Yes	0	28	28
Total	0	30	30

used a survey derived from *Standard One: Teachers Demonstrate Leadership* from the North Carolina Teacher Evaluation Instrument. Survey questions were categorized into six themes that were the most prevalent traits of leaders throughout the literature review.

The data for the study were analyzed in two ways. First, the patterns of survey responses were examined. Next, an analysis of the relationships among the survey responses was conducted. The analysis of the relationships was used for the research questions.

The patterns of survey responses showed an overall increase in perceptions of leadership abilities of ITL participants after training. The responses also showed similar perceptions between participants after training and their teammates and principals for agree and strongly agree responses. However, teammates had a much higher strongly agree response rate. The combined overall leadership scores showed that all respondent types had high perceptions of the leadership abilities of the participants.

The analysis of relationships was conducted through a series of Fisher's Exact Tests. The first research question reviewed the relationship between the way ITL participants' perceived leadership abilities before and after their training experiences. The relationships of each of the six themes of leadership, as well as the overall combined abilities of the participants, were analyzed. There were no significant relationships in any of the themes of leadership or in the overall leadership abilities.

The second research question reviewed the relationship between the perceptions of ITL participants' and their teammates. The relationships of each of the six themes of leadership, as well as the overall combined abilities of the participants, were analyzed. Furthermore, the relationship between the ITL participants' pre-perceptions and the teammates' perceptions and the relationship between the ITL participants' post-perception and the teammates' perceptions

were analyzed. There were no significant relationships in any of the themes of leadership or in the overall leadership abilities.

The third research question reviewed the relationship between the perceptions of ITL participants' and their principals. The relationships of each of the six themes of leadership, as well as the overall combined abilities of the participants, were analyzed. Furthermore, the relationship between the ITL participants' pre-perceptions and the principals' perceptions and the relationship between the ITL participants' post-perception and the principals' perceptions were analyzed. There were no significant relationships in any of the themes of leadership or in the overall leadership abilities.

The next chapter provides conclusions based on these results. Chapter 5 will also offer the implications for educational leaders, researchers, and policy makers.

CHAPTER 5: CONCLUSION

Overview

This study examined the effects of a district training program, entitled the Institute for Teacher Leaders (ITL). The study examined how the leadership behaviors demonstrated by teachers, based on perceptions, changed after completion of a district training program. The study was completed using survey data from the district training program participants, the participants' teammates, and the participants' principals. Participants rated their perceived leadership abilities prior to the training program and their perceived leadership abilities after completion of the training program. The participants' teammates rated the perceived leadership abilities of the participant after completion of the training. The participants' principals rated the perceived leadership abilities of the participant after completion of the training. No other studies had been performed on the effectiveness of the ITL.

Summary of Related Research

Leadership has been shown to be a key variable to school improvement (Leithwood et al., 2004; Marzano et al., 2005; Murphy et al., 2006; Murphy & Hallinger, 1988). Throughout the last two decades, increased accountability demands for educators have led to school reform efforts. Many of these efforts focused on school leadership. In 1983, the federal commission report *A Nation at Risk* had a "profound impact on the way the nation thinks about educational policy" (Louis et al., 2005, p. 177). This report led to reform efforts and policies designed to improve education through its call for rigorous content, higher standards and teacher regulations (Louis et al., 2005). In 2001, after nearly two decade of educational reform, The Elementary and Secondary Education Act (ESEA) mandated student achievement benchmarks for all students on a standardized curriculum and assessments. The standardized curriculum led to a questioning of

teacher roles (Valli & Buese, 2007). More recent reform efforts, such as the federal Race to the Top grants, also, led to an increased focus on teachers' roles. In fact, the executive summary for *Race to the Top Executive Summary* (United States Department of Education , 2009) included incentives for states that implemented programs and policies to develop "great teachers and school leaders" (p. 9).

A review of literature for business, athletics, and military demonstrated that leadership changed over time and was influenced by the needs of the organization. Researchers and practitioners created lists of traits or skill sets, but inconsistencies occurred when forming a definition due to the lack of agreement of an effective leader's necessary traits. When reviewing the literature on teacher leadership, similar concepts arose: a variety of themes and definitions surfaced. Katzenmeyer and Moller (2009) noted "when we visit groups that are interested in teacher leadership, there is a request for time to clarify the concept" (p. 5). Muijs and Harris (2003) stated, "In seeking a clear definition for teacher leadership an immediate problem emerged. It is evident from the international literature that there are overlapping and competing definitions of the term" (Muijs & Harris, 2003, p. 3). In a comprehensive synthesis on teacher leadership, York-Barr and Duke (2004) stated: "In writing about teacher leadership, many authors readily assert its importance and describe its various forms, but they usually fail to define it…Very few authors provide what would be considered a definition of teacher leadership" (p. 4). Furthermore, researchers and practitioners utilized many different descriptions of teacher leaders and a common understanding did not surface (Katzenmoyer & Moller, 2001; Muijs & Harris, 2003, Sherrill, 1999; York-Barr & Duke, 2004).

Another consistency with leadership outside of education was differing skills emerged when portraying them over time. For example, in the 1990s and early 2000s researchers called

for an increase in distributed leadership among teachers to lead to school improvement (Anderson & Shirley, 1995; Camburn et al., 2003; Goldstein, 2004; Hart, 1995; Spillane et al., 2001; Weiss & Cambone, 1994; York-Barr & Duke; 2004). Much of the work on distributed leadership revolved around creating a model that was not led by one single leader, but by the utilization of many leaders and collaboration throughout the school (Camburn et al., 2003; Leithwood & Jantzi, 2000; Oswaga & Bossert, 1995; Smiley et al., 2002).

In 2007, the North Carolina's Department of Public Instruction (DPI) created new standards and evaluation instruments for educators. The standards created not only expectations that teachers would be teacher leaders, but that principals and superintendents would develop and support teacher leadership. In spite of the growing interest in teacher leadership roles, it is interesting to note that the policy appears to be ahead of the research. York-Barr and Duke (2004) noted that the research is mixed concerning the relationship between teacher leadership and improved student achievement. Some research has found positive effects of teacher leadership at the school level with increased levels of school climate and sharing of best practices (Taylor & Bogatch, 1994; York-Barr & Duke, 2004). There are far fewer that show classroom level effects on student achievement (York-Barr & Duke, 2004).

Improving teacher leadership as a strategy for increased student achievement appeared to be based more on promise than proven results. York-Barr and Duke (2004) articulated the high expectations for teacher leadership as follows: "The hope for teacher leadership is continuous improvement of teaching and learning in our nation's schools, with the result being increased achievement for every student" (p. 255). With new policies calling for teacher leadership and new evaluation systems to measure it in many stated, additional research is needed to inform the practice of teacher leadership and the development of teacher leaders.

Organization of the Study

After reviewing the definitions of leadership from prominent researchers and practitioners, two teacher leadership syntheses articles, and additional sources, six themes emerged that were most commonly referenced and used in leadership descriptions and definitions. The six themes were vision-setting, results-oriented/accountability, influence, knowledge/ability, ethics, and collaboration.

The study utilized a twenty-four item survey to collect data on the perceived leadership abilities of participants from a district professional development program. The survey items were derived from the descriptors from the *North Carolina Teacher Evaluation Instrument Rubric.* The rubric had five elements of leadership that were used to evaluate teacher leadership. Each element contained several descriptors which became the survey items (see Table 3). The survey items were categorized and equally distributed into six themes of leadership from the review of literature. This categorization became the organizational basis for the study.

Nature of Study

Participants in Cohort Three and Four of the Institute for Teacher Leaders (ITL), their teammates, and their principals completed the survey. The survey responses were compiled and analyzed. Descriptive statistics were analyzed for trends to determine whether participants "agree" and "strongly agree" frequencies and item means increased after taking the training. Participant, teammate, and principal responses were analyzed to determine if there were similarities between participants' responses and the responses of their teammates and principals. Finally, a series of Fisher's Exact Tests was computed to determine if there were significant relationships in leadership behaviors of ITL participants before and after the Institute for Teacher Leaders.

Research Questions

The research questions were:

1. To what extent do teachers who participate in the Institute for Teacher Leaders have a positive self perception of their ability to lead on their team and school?
2. To what extent do teammates of participants in the Institute for Teacher Leaders believe that the participants have positive leadership qualities?
3. To what extent do principals of participants in the Institute for Teacher Leaders believe that the participants have positive leadership qualities?

Context for the Study

Demographics of the District

The district chosen for the study is a large, urban, public, school district in central North Carolina. The district served approximately 143,000 students in one hundred and three elementary schools, thirty-two middle schools, twenty-four high schools, and four special/optional schools.

District Training Program

The district training program, the Institute for Teacher Leaders (ITL), was developed and presented by the district's Office of Professional Development (OPD). Cohorts of fifteen to twenty teachers, nominated by their principals and representing schools throughout the district, participated in a series of leadership development activities that spanned two years. The ITL began during the 2005-2006 school year and ended in the 2009-2010 school year. Four cohorts of teachers participated in the program and participants in Cohorts III and IV were the teachers who participated in the study.

Participants in the Study

Cohort Three and Four of the ITL were chosen for the study. Participants in the first two cohorts were not included in the study because of the length of time between cohort participation and the research study and differences in training content. Thirty-eight teachers originally participated in Cohorts Three and Four. One teacher did not complete the training, and another left the district and was unable to be contacted. Although three of the remaining thirty-six teachers transferred to new teaching assignments within the district, they were still included in the study. Thirty-two of the thirty-six possible ITL participants responded to the survey. All seventeen principals and thirty-eight of the sixty-two (61%) teammates responded to the survey.

Analysis of Results

The data for the study were analyzed in two ways. First the patterns of survey responses were examined. Next, an analysis of the relationships among the survey responses was conducted. The analysis of the relationships was used for the research questions.

Descriptive Data

The twenty-four individual survey item responses were combined and examined for the frequency and percentage of responses for the participants' overall leadership abilities. Each of the six themes was also examined for the frequency and percentage of responses. All of the descriptive statistics included participant responses prior to training, participant responses after training, teammate responses and principal responses.

Overall combined leadership patterns. The overall patterns in the survey showed that the frequencies and percentages of responses in the "agree" and "strongly agree" categories increased for the participants after completing the training. The percentage of "strongly agree" responses also increased after participation in the training. The responses for the participants

after training were similar to the teammates' responses and the principals' responses. The overall combined leadership patterns show that participants increased their perceived leadership abilities after the training. The patterns also showed that all three respondent groups had high perceptions of participants' leadership abilities.

Six themes of leadership. There were four survey items analyzed for each of the six themes. The overall patterns in the survey showed that the frequencies and percentages of responses in the "agree" and "strongly agree" categories increased for the participants after completing the training for all six themes. The percentage of "strongly agree" responses also increased after participation in the training for all six themes. The patterns also showed that all three respondent groups had high perceptions of participants' leadership abilities. The results for the theme of collaboration increased more than any other theme for the participants.

Research Question 1

Research question one examined the relationship between the perceptions of ITL participants' leadership abilities prior to the training experience and their perception of their abilities after completion of the ITL. The evaluation was based on their overall scores for leadership as a whole and within each of the individual themes. A Fisher's Exact Test was computed to examine whether the responses of the participants showed that a relationship between the perception prior to training for leadership abilities and the perception after training for leadership abilities of the participants existed.

For the overall leadership abilities**,** a statistically significant relationship did not exist between the participant perception prior to training and the participant perception after training of combined leadership abilities. The test did not reveal a significant relationship ($x2 = 1.182$ (1),

p=.467). The pattern of responses in the table reflected that participants reported high levels of agreement (i.e., yes responses) after training regardless of prior perceptions.

For vision-setting, a statistically significant relationship did not exist between the participant perception prior to training and the participant perception after training vision setting. The test did not reveal a significant relationship (x2 =2.84 (1), p=0.267). The pattern of responses in the table reflected that participants reported high levels of agreement (i.e., yes responses) after training regardless of prior perceptions.

For results-oriented/accountability, a statistically significant relationship did not exist between the participant perception prior to training and the participant perception after training for results-oriented/accountability. The test did not reveal a significant relationship (x2 = 0.039 (1), p=0.687). The pattern of responses in the table reflected that participants reported high levels of agreement (i.e., yes responses) after training regardless of prior perceptions.

For influence, a statistically significant relationship did not exist between the participant perception prior to training and the participant perception after training for influence. The test did not reveal a significant relationship (x2 = 2.845 (1), p = 0.267). The pattern of responses in the table reflected that participants reported high levels of agreement (i.e., yes responses) after training regardless of prior perceptions.

For knowledge/ability, a statistically significant relationship did not exist between the participant perception prior to training and the participant perception after training for knowledge/ability. The test did not reveal a significant relationship (x2 = 3.339 (1), p = 0.233). The pattern of responses in the table reflected that participants reported high levels of agreement (i.e., yes responses) after training regardless of prior perceptions.

For ethics, a statistically significant relationship did not exist between the participant perception prior to training and the participant perception after training for ethics. The test did not reveal a significant relationship ($x2 = 5.172$ (1), $p = 0.167$). The pattern of responses in the table reflected that participants reported high levels of agreement (i.e., yes responses) after training regardless of prior perceptions.

For collaboration, a statistically significant relationship did not exist between the participant perception prior to training and the participant perception after training for collaboration. A Fisher's exact test was unable to compute because the "no" variable was a constant with 0 respondents in that categorical variable. The pattern of responses in the table reflected that participants reported high levels of agreement (i.e., yes responses) after training regardless of prior perceptions.

Research Question 2

Research question two examined the relationship between the perception of the ITL participant's leadership abilities and their teammates' perception of their abilities. In order to determine the significance of the relationship, a series of fourteen Fisher's Exact Tests was computed. A Fisher's Exact Test was computed to examine whether the responses of the respondents showed that a relationship between the perception prior to training for leadership abilities and the teammates' perception after training existed for participants' leadership abilities. Also, Fisher's Exact Tests were computed to examine whether the responses of the participants showed that a relationship between the participants' perception after training and the teammates' perception after training existed for participants' leadership abilities.

Participants' perception prior to training and teammates' perception after training. A statistically significant relationship did not exist between the participants' perception prior to

training and the teammates' perception after training of combined leadership abilities. The test did not reveal a significant relationship (x2 = 2.679 (1), p = 0.157.). The pattern of responses in the table reflected that participants reported high levels of agreement (i.e., yes responses) after training regardless of prior perceptions.

Participants' and teammates' perception after training on combined leadership. A statistically significant relationship did not exist between the participants' perception after training and the teammates' perception after training of combined leadership abilities. The test did not reveal a significant relationship (x2 = 0.207 (1), p = 1.000.). The pattern of responses in the table reflected that participants reported high levels of agreement (i.e., yes responses) after training regardless of prior perceptions.

Analysis of the relationships of individual themes. For research question number two, each of the six individual themes were analyzed using Fisher's Exact Tests. The tests were used to determine if there was a relationship between the ITL participants' perception prior to taking the training and their teammates' perception after the training. Also, Fisher's Exact Tests were computed to determine if there was a relationship between the ITL participants' perception after taking the training and their teammate' perception after the training.

For vision-setting, a statistically significant relationship did not exist between the participants' perception prior to training and the participant perception after training of vision setting. The test did not reveal a significant relationship (x2 = 5.893 (1), p=0.064). The pattern of responses in the table reflected that participants reported high levels of agreement (i.e., yes responses) after training regardless of prior perceptions. Also, a statistically significant relationship did not exist between the participants' and teammates' perception after training of vision setting. The test did not reveal a significant relationship (x2 = 14.483 (1), p=0.067). The

pattern of responses in the table reflects that participants reported high levels of agreement (i.e., yes responses) after training regardless of prior perceptions.

For results-oriented/accountability, a statistically significant relationship did not exist between the participants' perception prior to training and the participant perception after training for results-oriented/accountability. The test did not reveal a significant relationship ($x2 = 3.285$ (1), $p=0.138$). The pattern of responses in the table reflected that participants reported high levels of agreement (i.e., yes responses) after training regardless of prior perceptions. Also, a statistically significant relationship did not exist between the participants' and teammates' perception after training of results-oriented/accountability. The test did not reveal a significant relationship ($x2 = 1.714$ (1), $p=0.310$). The pattern of responses in the table reflected that participants reported high levels of agreement (i.e., yes responses) after training regardless of prior perceptions.

For influence, a statistically significant relationship did not exist between the participants' perception prior to training and the participant perception after training for influence. The test did not reveal a significant relationship ($x2 = 0.376$ (1), $p = 1.000$). The pattern of responses in the table reflected that participants reported high levels of agreement (i.e., yes responses) after training regardless of prior perceptions. Also, a statistically significant relationship did not exist between the participants' and teammates' perception after training of influence. The test did not reveal a significant relationship ($x2 = 0.36$ (1), $p = 1.000$). The pattern of responses in the table reflected that participants reported high levels of agreement (i.e., yes responses) after training regardless of prior perceptions.

For ethics, a statistically significant relationship did not exist between the participants' perception prior to training and the participant perception after training for ethics. The test did

not reveal a significant relationship (x2 = 0.429 (1), p = 1.000). The pattern of responses in the table reflected that participants reported high levels of agreement (i.e., yes responses) after training regardless of prior perceptions. Also, a statistically significant relationship did not exist between the participants' and teammates' perception after training of ethics. The test did not reveal a significant relationship (x2 = 0.074 (1), p = 1.000). The pattern of responses in the table reflected that participants reported high levels of agreement (i.e., yes responses) after training regardless of prior perceptions.

For knowledge/ability, a statistically significant relationship did not exist between the participants' perception prior to training and the participant perception after training for knowledge/ability. The test did not reveal a significant relationship (x2 = 0.186 (1), p = 1.000). The pattern of responses in the table reflected that participants reported high levels of agreement (i.e., yes responses) after training regardless of prior perceptions. Also, a statistically significant relationship did not exist between the participants' and teammates' perception after training of knowledge/ability. The test did not reveal a significant relationship (x2 = 0.115 (1), p = 1.000). The pattern of responses in the table reflected that participants reported high levels of agreement (i.e., yes responses) after training regardless of prior perceptions.

For collaboration, a statistically significant relationship did not exist between the participants' perception prior to training and the participant perception after training for collaboration. The test did not reveal a significant relationship (x2 = 0.238 (1), p = 1.000). The pattern of responses in the table reflected that participants reported high levels of agreement (i.e., yes responses) after training regardless of prior perceptions. Also, a Fisher's exact test was unable to compute because the "no" variable was a constant with 0 respondents in that

categorical variable. The pattern of responses in the table reflected that participants reported high levels of agreement (i.e., yes responses) after training regardless of prior perceptions.

Research Question 3

Research question three examined the relationship between the perception of the ITL participant's leadership abilities and their principals' perception of their abilities. In order to determine the significance of the relationship, a series of fourteen Fisher's Exact Tests was computed. The Fisher's Exact Tests were examined to determine if a relationship existed between the participants' perception prior to training and the principals' perception after training for participants' leadership abilities. Also, Fisher's Exact Tests were computed to examine whether the responses of the participants showed that a relationship between the participants' perception after training and the principals' perception after training existed for participants' leadership abilities.

Participants' perception prior to training and principals' perception after training. A statistically significant relationship did not exist between the participants' perception prior to training and the principals' perception after training of combined leadership abilities. The test did not reveal a significant relationship ($x2 = 0.536$ (1), $p = 0.586$). The pattern of responses in the table reflected that participants reported high levels of agreement (i.e., yes responses) after training regardless of prior perceptions.

Participants' and principals' perception after training on combined leadership. A statistically significant relationship did not exist between the participant perception after training and the principal perception after training of combined leadership abilities. The test did not reveal a significant relationship ($x2 = 0.115$ (1), $p = 1.000$). The pattern of responses in the

table reflected that participants reported high levels of agreement (i.e., yes responses) after training regardless of prior perceptions.

Analysis of the relationships of individual themes. For research question number three, each of the six individual themes were analyzed using Fisher's Exact Tests to determine if there was a relationship between the ITL participants' perception prior to taking the training and their principals' perception after the training. Also, Fisher's Exact Tests were computed to determine if there was a relationship between the ITL participants' perception after taking the training and their principals' perception after the training.

For vision-setting, a statistically significant relationship did not exist between the participants' perception prior to training and the participant perception after training of vision setting. The test did not reveal a significant relationship ($x2 = 0.779$ (1), $p = 1.000$). The pattern of responses in the table reflected that participants reported high levels of agreement (i.e., yes responses) after training regardless of prior perceptions. Also, a statistically significant relationship did not exist between the participants' and teammates' perception after training of vision setting. The test did not reveal a significant relationship ($x2 = 0.074$ (1), $p = 1.000$). The pattern of responses in the table reflected that participants reported high levels of agreement (i.e., yes responses) after training regardless of prior perceptions.

For results-oriented/accountability, a statistically significant relationship did not exist between the participants' perception prior to training and the participant perception after training of results-oriented/accountability. The test did not reveal a significant relationship ($x2 = 0.632$ (1), $p = 0.613$). The pattern of responses in the table reflected that participants reported high levels of agreement (i.e., yes responses) after training regardless of prior perceptions. Also, a statistically significant relationship did not exist between the participants' and teammates'

perception after training of results-oriented/accountability. The test did not reveal a significant relationship ($x2 = 0.330$ (1), $p = 1.000$). The pattern of responses in the table reflected that participants reported high levels of agreement (i.e., yes responses) after training regardless of prior perceptions.

For influence, a statistically significant relationship did not exist between the participants' perception prior to training and the participant perception after training of influence. The test did not reveal a significant relationship ($x2 = 5.893$ (1), $p = 0.064$). The pattern of responses in the table reflected that participants reported high levels of agreement (i.e., yes responses) after training regardless of prior perceptions. Also, a statistically significant relationship did not exist between the participants' and teammates' perception after training of influence. The test did not reveal a significant relationship ($x2 = 0.074$ (1), $p = 1.000$). The pattern of responses in the table reflected that participants reported high levels of agreement (i.e., yes responses) after training regardless of prior perceptions.

For ethics, A statistically significant relationship did not exist between the participants' perception prior to training and the participant perception after training of ethics. The test did not reveal a significant relationship ($x2 = 5.172$ (1), $p = 0.167$). The pattern of responses in the table reflected that participants reported high levels of agreement (i.e., yes responses) after training regardless of prior perceptions. Also, a statistically significant relationship did not exist between the participants' and teammates' perception after training of ethics. The test did not reveal a significant relationship ($x2 = 0.036$ (1), $p = 1.000$). The pattern of responses in the table reflected that participants reported high levels of agreement (i.e., yes responses) after training regardless of prior perceptions.

For knowledge/ability, a statistically significant relationship did not exist between the participants' perception prior to training and the participant perception after training of knowledge/ability. The test did not reveal a significant relationship ($x2 = 1.835$ (1), $p = 0.225$). The pattern of responses in the table reflected that participants reported high levels of agreement (i.e., yes responses) after training regardless of prior perceptions. Also, a statistically significant relationship did not exist between the participants' and teammates' perception after training of knowledge/ability. The test did not reveal a significant relationship ($x2 = 0.159$ (1), $p = 1.000$). The pattern of responses in the table reflected that participants reported high levels of agreement (i.e., yes responses) after training regardless of prior perceptions.

For collaboration, a statistically significant relationship did not exist between the participants' perception prior to training and the participant perception after training of collaboration. The test did not reveal a significant relationship ($x2 = 0.238$ (1), $p = 1.000$). The pattern of responses in the table reflected that participants reported high levels of agreement (i.e., yes responses) after training regardless of prior perceptions. Also, a Fisher's exact test was unable to compute because the "no" variable was a constant with 0 respondents in that categorical variable. The pattern of responses in the table reflected that participants reported high levels of agreement (i.e., yes responses) after training regardless of prior perceptions.

Conclusions

Research Question 1

Research question 1 asked, "To what extent do teachers who participate in the Institute for Teacher Leaders have a positive self perception of their ability to lead on their team and school?" The Fisher's Exact Tests demonstrated no significant relationship between the participants' perceptions prior to training and after training.

Research Question 2

Research question 2 asked, "To what extent do teammates of participants in the Institute for Teacher Leaders believe that the participants have positive leadership qualities?" The Fisher's Exact Tests demonstrated no significant relationship between the participants' perceptions of their leadership abilities and the teammates' perception of their leadership abilities.

Research Question 3

Research question 3 asked, "To what extent do principals of participants in the Institute for Teacher Leaders believe that the participants have positive leadership qualities?" The Fisher's Exact Tests demonstrated no significant relationship between the participants' perceptions of their leadership abilities and the principals' perception of their leadership abilities.

In summary, the study determined no significant relationships in any of the Fisher's Exact Tests computed to determine an increase in leadership abilities of the ITL participants.

Assumptions of the Study

The study identified three assumptions. First, this study utilized a survey research design that relied on teacher self-reported data. It was assumed that respondents would truthfully and accurately answer the survey. However, Babor and Del Boca (1992) noted that even though the validity of self-report data is occasionally questioned, research supports that it provides accurate data. They also noted that two issues impacting the validity of self-reported data is how sensitive the requested information is and the "characteristics of the respondents." Although the character of the respondents could not be determined for this research study, the data was not highly sensitive, which leads to the assumption of accurate and truthful responses from participants. Participants were notified that the survey was confidential, individual results would not be

shared, and appropriate data storage methods were utilized. Second, the study assumed the ITL participants would be able to answer the survey concerning their perceived leadership ability before taking the coursework. The survey was given after the completion of the program. Some survey items asked about experiences that occurred as long as three years prior to the survey completion. Finally, the study design assumed that participating teachers, their principals, and their teammates possessed the knowledge to respond accurately to the survey.

Limitations of the Study

There were limitations to the study. First, participating teachers completed the Institute for Teacher Leaders before the study took place. The survey of participants was completed one to three years after participants had completed the Institute for Teacher Leaders. Participants were asked to complete the survey based on what they remembered about the professional development activities. Therefore, responses may not be accurate. Second, the teachers who participated in the Institute for Teacher Leaders were selected by their principals because they demonstrated leadership skills and many were already filling formal and informal leadership roles in the school. Therefore, it will be difficult to determine the extent to which the teachers already excelled at leadership prior to taking the coursework or developed leadership skills as a result of the program. A third limitation is that it was not possible to determine how demonstrated growth in leadership skills occurred. Teacher experiences, culture of the school, and the supervision of the principal are among the many factors that could support the leadership development of teachers. It will not be possible to determine if growth was a result of the Institute of Teacher Leaders or other factors.

Implications and Recommendations

There were no significant relationships in the perception of leadership abilities between the ITL participants prior to training and the ITL participants after training. Furthermore, there were no significant relationships between the ITL participants' perceptions of their leadership abilities and the teammates' perceptions or principals' perception of their leadership abilities. However, the descriptive statistics showed trends for high leadership abilities for the participants. These finding have implications for instructional practice as well as bring forth recommendations for further study.

Research Based Definition

A consistent and accepted definition of leadership, in general, and teacher leadership, specifically, seems to be elusive. Depending on the era, field of expertise, or organization, the definition of leadership constantly evolves. As some researchers have noted, there is a lack of a consistently employed definition of a teacher leader (Muijs & Harris, 2003; York-Barr & Duke, 2004). Furthermore, many of the research articles on teacher leadership utilized limited or differing traits to measure leadership ability (Leithwood & Duke, 1999; Muijs & Harris, 2003; Silva et al., 2000; York-Barr & Duke, 2004). Throughout the review of literature, it can be noted that a definition often digresses to a series of lists, traits, or a compilations of axioms. When discussing teacher leadership, one thing can be certain, "In writing about teacher leadership, many authors readily assert its importance and describe its various forms, but they usually fail to define it…Very few authors provide what would be considered a definition of teacher leadership" (York-Barr & Duke, 2004, p. 4). Furthermore, Muijs and Harris (2003) stated, "In seeking a clear definition for teacher leadership an immediate problem emerges. It is evident from the international literature that there are overlapping and competing definitions of the term"

(Muijs & Harris, 2003, p. 3). Finally, Katzenmeyer and Moller (2000) noted "when we visit groups that are interested in teacher leadership, there is a request for time to clarify the concept" (p. 5).

By utilizing the six themes of leadership, researchers and practitioners may not have a readily accessible definition however; they will have a skill set that can function as a definition. Moreover, the themes can act as a guiding point to improve leadership skills. Also, each individual theme can be clearly and explicitly defined.

Differentiated Leadership Development

By breaking the definition of leadership into six themes, growth opportunities and professional development modules could be developed in each of the individual themes. Teacher evaluations and assessment could delineate which themes need to be prioritized for teachers and provide assistance in targeted areas, rather than a large scale area of leadership. Furthermore, administrators could easily assess the six themes and create targeted learning opportunities for teachers based the assessment for individual teachers.

Teacher Standard and Evaluation System

The use of this study could assist in closely aligning the North Carolina Teaching Standards or other state standards to the research base on teacher leadership. The current *North Carolina Teacher Standards* and *North Carolina Evaluation Instrument* identify teacher leadership as the first standard for teacher assessment. Standard One (see Appendix C) is titled *Teachers Demonstrate Leadership* and has five elements to define teacher leadership. The five elements are *Teachers lead in the classroom, Teachers demonstrate leadership in the school, Teachers lead the teaching profession, Teachers advocate for schools and students, and Teachers demonstrate high ethical standards*. A rubric is provided for each of the five elements

which assist teachers and principals in understanding the range from not demonstrated, developing, proficient, accomplished, and distinguished.

The elements, rubric, and descriptors provide a definition for educators. However, there is no research supporting the elements, rubric, or descriptors. This study pulls the most salient themes of leadership from the literature. By using the themes as the elements for the standards, the states could more closely align leadership skills with research. Explicit definitions of each could help guide teachers to increased leadership abilities that work in conjunction with the leadership research. This study could assist in reformatting teacher standards and the evaluation instrument in North Carolina and other states or nations in a fashion that supports leadership research.

Professional Development

The research study could assist in developing effective professional development for current teacher leaders and novice teachers in North Carolina. By aligning professional development on teacher leadership, educators can be assured the professional development opportunities are targeting areas that parallel the research base.

Teacher leadership is a large area of growth for many teachers. There are very few professional development opportunities that offered through school districts and are targeted in specific areas of need. Furthermore, most leadership preparation programs are tuition based or offered through colleges, universities, or leadership academies and lead to licensure add-on or are degree programs. Very few professional development opportunities are offered for master teachers that just need to shore up a small area of novice teachers that need to learn the basics of being a teacher leader. These are important areas for North Carolina teacher since it is part of evaluation system.

Training for teacher leaders. Educators have many different skill sets. Such is also the case with leaders. This study provides the opportunity to assess master teacher leaders skill sets against the six themes of leadership. If a teacher has an area of weakness, individual professional development modules could be created to strengthen one area, instead of leadership in general. Furthermore, it could provide individual school to assess the entire staff and use the expertise of the staff to develop growth opportunities within the school community.

Training for new teachers. The study could help create growth opportunities for novice teachers or teachers that do not have leadership skill sets. A professional development series that provides an overview of the six leadership themes identified from this study would benefit teacher and assist in moving from developing to accomplished or distinguished on the *North Carolina Teacher Evaluation Instrument*.

Budget

This research study has implications for state, district, and school budgets. North Carolina and many other states have signified the importance of teacher leadership by including it in the teacher evaluation system. Therefore, budgetary priorities for the development of teacher leadership should be considered. This research study provides an avenue for reviewing the standards and evaluation instruments and developing professional development to increase the leadership effectiveness for all educators. In order to appropriately analyze and assess leadership, funding will need to be provided.

Significance of the Study

Teacher leadership is a burgeoning area for research. The educational field has placed an increased emphasis on the importance of developing teacher leaders. As Barth (2001) noted, "Every teacher not only can lead, but must lead, if schools are going to develop into sites where

all students learn" (p. 444). Therefore, the significance of this study is timely and helpful to educational researchers and practitioners. It adds to the body of research on teacher leadership, provides targeted opportunities to develop leadership abilities, and assists with potential assessment tools for educators.

Research Body

The study is significant because it adds to the large body of research on leadership and the growing research on teacher leadership. It also adds increased meaning by synthesizing the leadership research to identify traits that are prevalent when reviewing teacher leadership. The study could also potentially add to the research body that is attempting to craft a consistent definition of leadership. The synthesis of traits can assist in aligning theories of leadership into a succinct definition for teacher leaders.

Targeted Opportunities for Professional Growth

The research study provides a significant skeleton to design professional development opportunities for educators. Training modules and professional development series could be created that align to the work of the study and target individual and differentiated growth needs for teacher leaders and novice teachers.

Assessment of Teacher Leadership

The study provides a guide for future researchers to assess teacher leadership. Furthermore, it can provide a forum for assessment of current and future professional development workshops or programs. Researchers and practitioners could utilize the study to devise pre-assessments and post assessments for teachers. Finally, the study could assist districts and states with developing of evaluation instruments that are aligned to research based studies.

Needs for Further Research

The research study adds to the body of research surrounding teacher leadership. However, there are many aspects of research that could be generated from this study. With the recent Federal Race to the Top Grants, many states and districts are redefining state standards that place an emphasis on teacher leadership. Furthermore, many colleges and universities are creating teacher leadership programs and professional development opportunities. The increased emphasis on teacher leadership provides opportunities for further research.

Further research in determining a universally accepted and recognized definition of leadership traits would be beneficial. Different educational administrators, states, or districts utilize varying methods of defining and assessing teacher leadership. Historically, this challenge has also been the case with state standards and curriculums. The recent development of the national Common Core Standards shows a push towards alignment of curricular standards and practices throughout the United States. Creating a research-based definition of teacher leadership and aligning that definition to state standards and teacher evaluation systems could be potentially beneficial to educators. A universally accepted definition could assist with alignment of training, resources, and practices that are grounded in research that impacts student achievement and school and district climate. The definition could also benefit the restructuring of teacher preparation programs and novice teacher mentoring programs. Through increasing the research and creating the urgency to find a universally accepted definition of teacher leadership, that will stand the test of time, educators will be better equipped to assist teachers and potentially impact student achievement.

Replications of this research study in other areas with differing demographics or in other states with different standard would be beneficial. This research study was in a large, urban

district in North Carolina. A study that utilized the six themes would help strengthen the research on the most prevalent themes of teacher leadership.

There are limited research studies that reveal whether teacher leadership abilities positively impact student achievement. The limited research points to a need for more research on the impact of teacher leadership on student achievement and school culture. Direct impacts on student achievement by teacher leaders, impacts through professional learning communities and collaboration, and indirect impacts on student achievement through school and district climate and culture would be important studies. The increased time, energy, and money that is being utilized to impact teacher leadership should have a foundation in research that fully supports claims that teacher leadership positively impacts student achievement.

A study that utilized the six themes with a pre-assessment and post assessment model add to the research base. The leadership program that was researched for this studied was eliminated and there were no opportunities to utilize a pre-assessment and post-assessment to measure the program's effectiveness. Furthermore, other types of leadership development programs should be studied to determine what the most effective methods for developing teacher leadership are.

Another area of further research would be to duplicate the study with a teacher leadership program and utilize a mixed method research study. By integrating qualitative results, a more thorough understanding of teacher leadership abilities and improvement would be garnered. Teacher, principal, and teammate interviews would help ascertain varying perspectives and opinions that were not collected through the survey or quantitative methods. Furthermore, interviews with program developers and facilitators would offer perspective to help determine if program goals were met.

Another area of further research surrounds teacher leadership preparation programs to determine if they are increasing the effectiveness of teacher leaders in research based skill sets. Furthermore, research should determine if the skill sets correlate, either directly or indirectly, to more effective teams and school communities.

Research surrounding leadership development of novice teacher and research for experienced teacher leaders would be beneficial. The *North Carolina Teaching Standards* mandate a goal for any teacher that has a "not demonstrated" or a "developing" in any section of the *North Carolina Teacher Evaluation Instrument*. Novice teachers must develop their leadership skills quickly. Research to determine how to guide and develop new teachers would be beneficial, especially with the increased focus on evaluating teacher leadership.

Also, professional development for educators that are deemed below standard in leadership would be a beneficial study. This study targeted a teacher leadership program that had administrative selected teachers. The purpose of the program was to nurture existing teacher leaders. A study to determine the effects of a leadership preparation program on below standard teacher leaders would help determine if there were different skill sets or methods to teaching below standard teachers. The participants in many leadership programs are self-selected or are chosen by their supervisors. By studying at-risk teacher leaders, a greater perspective could be gained on the process for developing leaders.

Finally, the role of informal leaders within a school community and how to nurture the informal leaders should be studied. If research does indeed show that teacher leadership increases student achievement, then methods of nurturing the leaders will be necessary. Furthermore, the impact of teacher leadership should be through the lens of direct effects on student performance and indirect effects of school climate, teacher retention, and other tangential

areas that improve student learning. However, if teacher leadership does not impact student achievement directly or indirectly, then justification for increased teacher leadership as a method of evaluating teacher should be analyzed.

Informal teacher leadership and the impact on student achievement offer a variety of further research opportunities. Research based best practices is a buzz word as educators continually search for methods to improve district, school, and student achievement. As the support for the significance of teacher leadership increases, it will be important for the research base to strengthen and either support or refute the policies that mandate increased teacher leadership.

Summary

There has been an increased call for the development of teacher leadership abilities amongst educators as a method of positively impacting student learning. This research study's aim was to understand a professional development program that had not been studied and where the effectiveness of the program had not been determined.

In the era of increased accountability, it is important to thoroughly research programs that are intended to impact teacher leadership and student achievement. This chapter outlined the results and conclusions from study of a teacher leadership development program. It provided a summary of the related research and reviewed the organization of the study. The nature of the study was examined. The research questions and context of the study was reviewed. An analysis of results was provided and conclusions were stated. Assumptions and limitations were stated. Implications were discussed and recommendations were made. The professional significance of the study was outlined and areas of further research were examined.

Although the study did not find any relationships that significantly impacted the perceptions of leadership abilities of the ITL participants, it did show high trends of leadership abilities from the participants. With the amplified accountability and mandates for increased leadership, a tool to effectively assess and measure leadership is necessary. With further research, the six themes could become the tool to effectively assess and professionally develop teacher leadership skills.

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APPENDIX A: INSTITUTE OVERVIEW FLYER

Vision: A community of caring stakeholders will successfully work collaboratively with support from the broader community to ensure that every child educated in the Wake County Public School System graduates on time, prepared for the future.
Developed by OCIPD, August 2008

INSTITUTE FOR TEACHER LEADERS
2008-2010

GOAL
To provide opportunities for teacher leaders to develop the skills needed to lead and support school improvement within a learning community

NOMINATION PROCESS
- Area Superintendents nominate two (2) schools from their region and an alternate
- Area Superintendents notify OCIPD of the selected schools
- OCIPD contacts the Principal of nominated schools
- Principals nominate 2-3 teachers & submit names to OCIPD

PARTICIPANT SELECTION CRITERIA
- Full-time classroom teachers currently in leadership roles within their assigned schools who wish to remain in the classroom
  - Grade Level or Department Chairs
  - SIP Chairs
  - Committee Chairs
  - SST Chairs
  - PLC Leader
  - IRT
  - PBS Chairs
- A minimum of 3 years of classroom experience
- Should NOT be teachers currently in *formal* leadership roles for the majority of their day (½ time AP – ½ teacher)

PROGRAM REQUIREMENTS
- Attend 4-6 full days of training per year (substitute will be provided)
- Read all materials provided and complete all assignments
- Continue training through WCPSS Institute for Teacher Leaders during the 2008-09 and 2009-10 school year representing their current school (two year program)
- Lead a school improvement project during the second year in collaboration with principal, IRT, team leaders, etc.

SPECIAL FEATURES OF PROGRAM
- Institute can support 18-22 teachers and will consist of participants from each region within WCPSS
- Program will be supported by OCIPD and Triangle Leadership Academy
- OCIPD assigned oversight of program
- All materials needed for the sessions will be provided
- Participants will receive renewal credit upon successful completion of the program
- Participants will have an opportunity to study and practice leadership in action
- Course work includes, but is not limited to, Crucial Conversations© and Facilitative Leadership® Tapping the Power of Participation

APPENDIX B: OVERVIEW FOR PROGRAM COHORTS 1-4 FLYER

Developed by OCIPD, August 2008

Program Overview (Cohort I)

January, 2006- May, 2007

Year 1:

Pacing for semester 1: (only met one semester during the year)

Spring, 2006: 1 day with Office of Professional Development (OPD)– Intro the Institute, Book Study (Outlearning the Wolves by David Hutchens), reflection on characteristics of teachers as leaders at their schools and correlate the identified characteristics to the INTASC Standards.

Spring, 2006: 2 days with Triangle Leadership Academy (TLA)– Crucial Conversations

Spring, 2006: 1 late afternoon meeting with OPD – Discuss SIP project development for spring design phase and fall implementation, Q&A with 2 School Board members – focus on the role of leadership

Year 2:

Fall, 2007: 3 days with Professional Development and TLA – Facilitative Leadership: Tapping the Power of Participation®

Fall, 2007: 1 late afternoon meeting with OPD – Discuss SIP project proposals from schools, plans for next year of institute, kick off for a book study based on Awakening the Sleeping Giant by Katzenmeyer and Moller

Spring, 2007: 1 day with OPD – Attend Superintendent's Leadership Team meeting as observers (outer circle with SLT as inner circle)- purpose to observe leadership in action – the leadership roles played by each member of the team were observed and discussed after the meeting – Q&A session with Dr. Burns (Superintendent) – Remainder of the day was spent debriefing the SLT meeting content, SIP project work, preparation for attending Committee of the Whole (COW) and the School Board meeting in the future, and continue Giant Book Study

Spring, 2007: 1 day with OPD – Prep for structure of the day with the School Board, Attend School Board's Committee of the Whole (COW) and the WCPSS School Board meeting – purpose observe leadership in action – view the leadership role of the SLT members visited earlier – view the leadership role of the School Board members, debrief observations after the board meeting – Teacher Leaders were recognized by Board Chair as special guests at the COW and BOE meetings

Spring, 2007: 1 day with OPD – Celebration and SIP Project Presentations (each school team was expected to Stand and Deliver their presentation within a 10 minute time limit) – viewed by School Board members, Superintendent, Assistant Superintendents and Special Assistants, Chief of Staff, Principals, Assistant Principals, Teachers, Central Services staff, special guests of Institute participants

Program Overview (Cohort II)

September, 2006-May, 2008

Year 1:
During the year, participants developed into a high-functioning Professional Learning Community with opportunities to develop into high-functioning leaders within their school setting from the classroom to the larger school environment.

Pacing for year 1:
Fall, 2006: 1 day with Office of Professional Development (OPD)– Intro the Institute, Book Study (Outlearning the Wolves by David Hutchens), reflection on characteristics of teachers as leaders at their schools and correlate the identified characteristics to the INTASC Standards.
Fall, 2006: 2 days with Triangle Leadership Academy (TLA)– Crucial Conversations
Fall, 2006: 1 late afternoon meeting with OPD – Discuss SIP project development for spring design phase and fall implementation, Q&A with 2 School Board members – focus on the role of leadership
Spring, 2007: 3 days with Professional Development and TLA – Facilitative Leadership: Tapping the Power of Participation®
Spring, 2007: 1 late afternoon meeting with OPD – Discuss SIP project proposals from schools, plans for next year of institute, kick off for a book study based on Awakening the Sleeping Giant by Katzenmeyer and Moller

Year 2:
Participants had opportunities to observe leadership in action by attending a variety of meetings such as: School Board's Committee of the Whole, and School Board Meeting for the purpose of understanding the internal protocols for the work of the school system. Participants worked with the principal and appropriate staff to assist with the continuous improvement of the school through supporting the successful implementation of the School Improvement Plan. The culminating celebration was a gallery walk of project presentations from the participants at a graduation celebration/reception.

Pacing Year 2:
Fall, 2007: 1 day with OPD – Facilitative Leadership Day 4- The content of this day was dependent on the FL needs of the participants. The Power of Protocols by McDonald, Nohr, Dichter, and McDonald was an additional resource given in order to provide assistance with Facilitative Leadership.
Fall, 2007: 1 day with OPD – Attend Superintendent's Leadership Team meeting as observers (outer circle with SLT as inner circle)- purpose to observe leadership in action – the leadership roles played by each member of the team were observed and discussed after the meeting – Q&A session with Dr. Burns (Superintendent) – Remainder of the day was spent in debriefing the SLT meeting content, SIP project work, preparation for attending Committee of the Whole (COW) and the School Board meeting in the future, and continue Giant Book Study
Spring, 2008: 1 day with OPD – Prep for structure of the day with the School Board, Attend School Board's Committee of the Whole (COW) and the WCPSS School Board meeting – purpose observe leadership in action – view the

leadership role of the SLT members visited earlier – view the leadership role of the School Board members, debrief observations after the board meeting – Teacher Leaders were recognized by Board Chair as special guests at the COW and BOE meetings

Spring, 2008: 1 day with OPD – Celebration and SIP Project Gallery Walk – viewed by School Board members, Superintendent, Assistant Superintendents and Special Assistants, Chief of Staff, Principals, Assistant Principals, Teachers, Central Services staff, special guests of Institute participants

Program Overview (Cohort III & IV)
September, 2008-May, 2010

Year 1:

During the year, participants developed into a high-functioning Professional Learning Community with opportunities to develop into high-functioning leaders within their school setting from the classroom to the larger school environment.

Pacing for year 1:

Fall, 2008: 2 days with Triangle Leadership Academy (TLA)– Crucial Conversations

Spring, 2009: 1 day with Office of Professional Development (OPD)– Intro the Institute, Book Study (Outlearning the Wolves by David Hutchens), reflection on characteristics of teachers as leaders grounded by the new teacher evaluation standards, participate in web 2.0 technology training, and discuss SIP project development for spring design phase and fall implementation

Spring, 2009: Kick off for an online book study based on Awakening the Sleeping Giant by Katzenmeyer and Moller (Prompts would be posted via a wiki with the expectation that participants will respond through their reflections.)

Year 2:

Participants had opportunities to observe leadership in action by viewing a variety of meetings such as: School Board's Committee of the Whole, and School Board Meeting via WRAL live stream for the purpose of understanding the internal protocols for the work of the school system. Participants worked with the principal and appropriate staff to assist with the continuous improvement of the school through supporting the successful implementation of the School Improvement Plan. The culminating celebration was a gallery walk of project presentations from the participants at a graduation celebration/reception.

Pacing Year 2:

Fall, 2009: 3 days with Professional Development and TLA – Facilitative Leadership: Tapping the Power of Participation®

Fall, 2009: Continue the Giant online book study

Spring, 2010: Facilitative Leadership Day 4 via Wimba Classroom (web-conference) - The content of this day was dependent on the FL needs of the participants and determined in advance.

Spring, 2010: 1 evening with OPD – Celebration and SIP Project Gallery Walk – viewed by School Board members, Superintendent, Assistant Superintendents and

Special Assistants, Chief of Staff, Principals, Assistant Principals, Teachers, Central Services staff, special guests of Institute participants.

APPENDIX C: NORTH CAROLINA TEACHER EVALUATION INSTRUMENT

RUBRIC: STANDARD 1

Standard 1: Teachers Demonstrate Leadership

Element A: Teachers lead in their classrooms.

Developing:

- Understands how they contribute to students graduating from high school
- Uses data to understand the skills & abilities of students

Proficient:

- Takes responsibility for the progress of students to ensure that they graduate from high school
- Provides evidence of data driven instruction throughout all classroom activities

Accomplished:

- Communicates to students the vision of being prepared for life in the 21st Century
- Evaluates student progress using a variety of assessment data

Distinguished:

- Encourages students to take responsibility for their own learning
- Uses classroom assessment data to inform program planning

Element B: Teachers demonstrate leadership in the school.

Developing:

- Attends professional learning community meetings
- Displays awareness of the goals of the school improvement plan

Proficient:

- Participates in professional learning community
- Participates in developing and/or implementing the school improvement plan

Accomplished:

- Assumes a leadership role in professional learning community
- Collaborates w/ school personnel on school improvement activities

Distinguished:

- Collaborates with colleagues to improve the quality of learning in the school
- Assumes a leadership role in implementing school improvement plan throughout the building

Element C: Teachers lead the teaching profession

Developing:

- Has knowledge of opportunities & the need for professional growth & begins to establish relationships w/ colleagues

Proficient:

- Contributes to the improvement of the profession through professional growth
- Contributes to the establishment of positive working relationships

- Contributes to the school's decision-making processes as required

Accomplished:

- Promotes positive working relationships through professional growth activities and collaboration

Distinguished:

- Seeks opportunities to lead professional growth activities and decision-making processes

Element D: Teachers advocate for schools and students.

Developing:

- Knows about the policies & practices affecting student learning

Proficient:

- Supports positive change in policies & practices affecting student learning

Accomplished:

- Participates in developing policies & practices to improve student learning

Distinguished:

- Actively participates, promotes, and provides strong supporting evidence for implementation of initiatives to improve education

Element E: Teachers demonstrate high ethical standards.

Developing

- Understands the importance of ethical behavior as outlined in the *Code of Ethics for North Carolina Educators* and the *Standards for Professional Conduct.*

Proficient

- Demonstrates ethical behavior through adherence to the *Code of Ethics for North Carolina Educators* and the *Standards for Professional Conduct*.

Accomplished

- Knows and upholds the *Code of Ethics for North Carolina Educators* and the *Standards for Professional Conduct.*

Distinguished

- Models the tenets of the *Code of Ethics for North Carolina Educators* and the *Standards for Professional Conduct* and encourages others to do the same.

APPENDIX D: LEADERSHIP SURVEY

Institute for Teacher Leadership Survey – Final

Q8 Thank you for taking this survey. We truly value your input and appreciate your time. The survey should take no longer than 15 minutes.

Q119 If you are receiving this survey, you are either a teacher that participated in the Wake County Institute for Teacher Leaders, a teammate of a teacher participant, or a principal of a teacher participant. The Wake County Institute for Teacher Leaders was a series of professional development classes that selected teachers participated in during the 2005-2010 school years. The Institute was sponsored by the Wake County Office of Professional Development and was intended to nurture and improve leadership skills of teachers. Thank you once again for taking time to complete the survey.

Q156 Please check the name of your school?

- School (1)
- Banks Road Elementary (2)
- Brentwood Elementary (3)
- Carroll Middle (4)
- Dillard Drive Elementary (5)
- Garner High School (6)
- Green Elementary (7)
- Heritage High (8)
- Holly Grove Middle (9)
- Knightdale High School (10)
- Lake Myra Elementary (11)
- North Garner Middle (12)
- Panther Creek High (13)
- Partnership Elementary (14)
- Powell Elementary (15)
- Rand Road Elementary (16)
- Wendell Elementary (17)
- West Cary Middle (18)
- Wake Forest-Rolesville High School (19)

- Q160 Please click on the Institute for Teacher Leaders' participant name in the drop down box below. (NAMES HAVE BEEN REMOVED)

Q169 Did you participate in Wake County Public School System Institute for Teacher Leaders, or are you a teammate, or principal of a member of the Institute for Teacher Leaders

- I participated in the Institute for Teacher Leaders (1)
- I am a teammate of a member of the Institute for Teacher Leaders (2)
- I am a principal of a member of the Institute for Teacher Leaders (3)

Answer If Did you participate in Wake County Public School System I... I participated in the Institute for Teacher Leaders Is Selected And Did you participate in Wake County Public School System I... I am a teammate of a member of the Institute for Teacher Leaders Is Selected

Q42 What is your current teaching level?

- Kindergarten - Second Grade (1)
- Third - Fifth Grade (2)
- Sixth - Eighth Grade (3)
- Ninth - Twelfth Grade (4)
- Specialist (5)

Answer If Did you participate in Wake County Public School System I... I participated in the Institute for Teacher Leaders Is Selected

Q2 When did you participate in the Teacher Leaders Cohort through the Wake County Public School System Office of Professional Development?

- Cohort 3 2007-2009 (1)
- Cohort 4 2008-2010 (2)

Answer If Did you participate in Wake County Public School System I... I participated in the Institute for Teacher Leaders Is Selected

Q41 Please answer the following questions concerning your coursework through the Institute for Teacher Leadership. The questions are aligned to the North Carolina Teacher Evaluation Rubric. Please answer the survey questions in the same fashion as the rubric. Also, for each question, there is place to answer for your perception prior to attending the Institute for Teacher Leaders and after attending. Please answer both sections. Thank you.

Answer If Did you participate in Wake County Public School System I... I am a teammate of a member of the Institute for Teacher Leaders Is Selected

Q68 Please answer the following questions concerning your teammate's leadership abilities. The questions are aligned to the North Carolina Teacher Evaluation Rubric. Please answer the survey questions in the same fashion as the rubric. Thank you.

Answer If Did you participate in Wake County Public School System I... I am a principal of a member of the Institute for Teacher Leaders Is Selected

Q69 Please answer the following questions concerning your teacher's leadership abilities. The questions are aligned to the North Carolina Teacher Evaluation Rubric. Please answer the survey questions in the same fashion as the rubric. Thank you.

Answer If Did you participate in Wake County Public School System I... I participated in the Institute for Teacher Leaders Is Selected

Q11 I communicate to students the vision of being prepared for life in the 21st Century.

	Prior to Institute for Teacher Leaders				After Completing Institute for Teacher Leaders			
	Strongly Disagree (1)	Disagree (2)	Agree (3)	Strongly Agree (4)	Strongly Disagree (1)	Disagree (2)	Agree (3)	Strongly Agree (4)
Please Answer Each Column (1)	❍	❍	❍	❍	❍	❍	❍	❍

Answer If Did you participate in Wake County Public School System I... I participated in the Institute for Teacher Leaders Is Selected

Q164 I lead in the creation of a shared vision for my team.

	Prior to Institute for Teacher Leaders				After Completing Institute for Teacher Leaders			
	Strongly Disagree (1)	Disagree (2)	Agree (3)	Strongly Agree (4)	Strongly Disagree (1)	Disagree (2)	Agree (3)	Strongly Agree (4)
Please Answer Each Column (1)	❍	❍	❍	❍	❍	❍	❍	❍

Answer If Did you participate in Wake County Public School System I... I participated in the Institute for Teacher Leaders Is Selected

Q59 I participate in developing policies to improve student learning.

	Prior to Institute for Teacher Leaders				After Completing Institute for Teacher Leaders			
	Strongly Disagree (1)	Disagree (2)	Agree (3)	Strongly Agree (4)	Strongly Disagree (1)	Disagree (2)	Agree (3)	Strongly Agree (4)
Please Answer Each Column (1)	❍	❍	❍	❍	❍	❍	❍	❍

Answer If Did you participate in Wake County Public School System I... I participated in the Institute for Teacher Leaders Is Selected

Q58 I support positive change in policies and practices that affect student learning.

	Prior to Institute for Teacher Leaders				After Completing Institute for Teacher Leaders			
	Strongly Disagree (1)	Disagree (2)	Agree (3)	Strongly Agree (4)	Strongly Disagree (1)	Disagree (2)	Agree (3)	Strongly Agree (4)
Please Answer Each Column (1)	❍	❍	❍	❍	❍	❍	❍	❍

Answer If Did you participate in Wake County Public School System I... I participated in the Institute for Teacher Leaders Is Selected

Q53 I assume a leadership role in implementing the school improvement plan throughout the building.

	Prior to Institute for Teacher Leaders				After Completing Institute for Teacher Leaders			
	Strongly Disagree (1)	Disagree (2)	Agree (3)	Strongly Agree (4)	Strongly Disagree (1)	Disagree (2)	Agree (3)	Strongly Agree (4)
Please Answer Each Column (1)	❍	❍	❍	❍	❍	❍	❍	❍

Answer If Did you participate in Wake County Public School System I... I participated in the Institute for Teacher Leaders Is Selected

Q44 I evaluate student progress using a variety of assessment data.

	Prior to Institute for Teacher Leaders				After Completing Institute for Teacher Leaders			
	Strongly Disagree (1)	Disagree (2)	Agree (3)	Strongly Agree (4)	Strongly Disagree (1)	Disagree (2)	Agree (3)	Strongly Agree (4)
Please Answer Each Column (1)	❍	❍	❍	❍	❍	❍	❍	❍

Answer If Did you participate in Wake County Public School System I... I participated in the Institute for Teacher Leaders Is Selected

Q57 I seek opportunities to lead decision-making processes.

	Prior to Institute for Teacher Leaders				After Completing Institute for Teacher Leaders			
	Strongly Disagree (1)	Disagree (2)	Agree (3)	Strongly Agree (4)	Strongly Disagree (1)	Disagree (2)	Agree (3)	Strongly Agree (4)
Please Answer Each Column (1)	❍	❍	❍	❍	❍	❍	❍	❍

Answer If Did you participate in Wake County Public School System I... I participated in the Institute for Teacher Leaders Is Selected

Q50 I assume a leadership role in my professional learning community.

	Prior to Institute for Teacher Leaders				After Completing Institute for Teacher Leaders			
	Strongly Disagree (1)	Disagree (2)	Agree (3)	Strongly Agree (4)	Strongly Disagree (1)	Disagree (2)	Agree (3)	Strongly Agree (4)
Please Answer Each Column (1)	❍	❍	❍	❍	❍	❍	❍	❍

Answer If Did you participate in Wake County Public School System I... I participated in the Institute for Teacher Leaders Is Selected

Q61 I promote the implementation of initiatives to improve education.

	Prior to Institute for Teacher Leaders				After Completing Institute for Teacher Leaders			
	Strongly Disagree (1)	Disagree (2)	Agree (3)	Strongly Agree (4)	Strongly Disagree (1)	Disagree (2)	Agree (3)	Strongly Agree (4)
Please Answer Each Column (1)	❍	❍	❍	❍	❍	❍	❍	❍

Answer If Did you participate in Wake County Public School System I... I participated in the Institute for Teacher Leaders Is Selected

Q62 I provide strong supporting evidence for implementation of initiatives to improve education.

	Prior to Institute for Teacher Leaders				After Completing Institute for Teacher Leaders			
	Strongly Disagree (1)	Disagree (2)	Agree (3)	Strongly Agree (4)	Strongly Disagree (1)	Disagree (2)	Agree (3)	Strongly Agree (4)
Please Answer Each Column (1)	❍	❍	❍	❍	❍	❍	❍	❍

Answer If Did you participate in Wake County Public School System I... I participated in the Institute for Teacher Leaders Is Selected

Q54 I promote positive working relationships through professional growth activities.

	Prior to Institute for Teacher Leaders				After Completing Institute for Teacher Leaders			
	Strongly Disagree (1)	Disagree (2)	Agree (3)	Strongly Agree (4)	Strongly Disagree (1)	Disagree (2)	Agree (3)	Strongly Agree (4)
Please Answer Each Column (1)	❍	❍	❍	❍	❍	❍	❍	❍

Answer If Did you participate in Wake County Public School System I... I participated in the Institute for Teacher Leaders Is Selected

Q46 I encourage students to take responsibility for their own learning.

	Prior to Institute for Teacher Leaders				After Completing Institute for Teacher Leaders			
	Strongly Disagree (1)	Disagree (2)	Agree (3)	Strongly Agree (4)	Strongly Disagree (1)	Disagree (2)	Agree (3)	Strongly Agree (4)
Please Answer Each Column (1)	❍	❍	❍	❍	❍	❍	❍	❍

Answer If Did you participate in Wake County Public School System I... I participated in the Institute for Teacher Leaders Is Selected

Q47 I use classroom assessment data to inform program planning.

	Prior to Institute for Teacher Leaders				After Completing Institute for Teacher Leaders			
	Strongly Disagree (1)	Disagree (2)	Agree (3)	Strongly Agree (4)	Strongly Disagree (1)	Disagree (2)	Agree (3)	Strongly Agree (4)
Please Answer Each Column (1)	❍	❍	❍	❍	❍	❍	❍	❍

Answer If Did you participate in Wake County Public School System I... I participated in the Institute for Teacher Leaders Is Selected

Q56 I seek opportunities to lead professional growth activities.

	Prior to Institute for Teacher Leaders				After Completing Institute for Teacher Leaders			
	Strongly Disagree (1)	Disagree (2)	Agree (3)	Strongly Agree (4)	Strongly Disagree (1)	Disagree (2)	Agree (3)	Strongly Agree (4)
Please Answer Each Column (1)	❍	❍	❍	❍	❍	❍	❍	❍

Answer If Did you participate in Wake County Public School System I... I participated in the Institute for Teacher Leaders Is Selected

Q49 I empower and encourage students to create and maintain a safe and supportive school and community environment.

	Prior to Institute for Teacher Leaders				After Completing Institute for Teacher Leaders			
	Strongly Disagree (1)	Disagree (2)	Agree (3)	Strongly Agree (4)	Strongly Disagree (1)	Disagree (2)	Agree (3)	Strongly Agree (4)
Please Answer Each Column (1)	❍	❍	❍	❍	❍	❍	❍	❍

Answer If Did you participate in Wake County Public School System I... I participated in the Institute for Teacher Leaders Is Selected

Q60 I participate in implementing practices to improve student learning.

	Prior to Institute for Teacher Leaders				After Completing Institute for Teacher Leaders			
	Strongly Disagree (1)	Disagree (2)	Agree (3)	Strongly Agree (4)	Strongly Disagree (1)	Disagree (2)	Agree (3)	Strongly Agree (4)
Please Answer Each Column (1)	❍	❍	❍	❍	❍	❍	❍	❍

Answer If Did you participate in Wake County Public School System I... I participated in the Institute for Teacher Leaders Is Selected

Q63 I know the Code of Ethics for North Carolina Educators and the Standards for Professional Conduct.

	Prior to Institute for Teacher Leaders				After Completing Institute for Teacher Leaders			
	Strongly Disagree (1)	Disagree (2)	Agree (3)	Strongly Agree (4)	Strongly Disagree (1)	Disagree (2)	Agree (3)	Strongly Agree (4)
Please Answer Each Column (1)	❍	❍	❍	❍	❍	❍	❍	❍

Answer If Did you participate in Wake County Public School System I... I participated in the Institute for Teacher Leaders Is Selected

Q64 I uphold the Code of Ethics for North Carolina Educators and the Standards for Professional Conduct.

	Prior to Institute for Teacher Leaders				After Completing Institute for Teacher Leaders			
	Strongly Disagree (1)	Disagree (2)	Agree (3)	Strongly Agree (4)	Strongly Disagree (1)	Disagree (2)	Agree (3)	Strongly Agree (4)
Please Answer Each Column (1)	❍	❍	❍	❍	❍	❍	❍	❍

Answer If Did you participate in Wake County Public School System I... I participated in the Institute for Teacher Leaders Is Selected

Q65 I model the Code of Ethics for North Carolina Educators and the Standards for Professional Conduct.

	Prior to Institute for Teacher Leaders				After Completing Institute for Teacher Leaders			
	Strongly Disagree (1)	Disagree (2)	Agree (3)	Strongly Agree (4)	Strongly Disagree (1)	Disagree (2)	Agree (3)	Strongly Agree (4)
Please Answer Each Column (1)	❍	❍	❍	❍	❍	❍	❍	❍

Answer If Did you participate in Wake County Public School System I... I participated in the Institute for Teacher Leaders Is Selected

Q66 I encourage others to uphold the Code of Ethics for North Carolina Educators and the Standards for Professional Conduct.

	Prior to Institute for Teacher Leaders				After Completing Institute for Teacher Leaders			
	Strongly Disagree (1)	Disagree (2)	Agree (3)	Strongly Agree (4)	Strongly Disagree (1)	Disagree (2)	Agree (3)	Strongly Agree (4)
Please Answer Each Column (1)	❍	❍	❍	❍	❍	❍	❍	❍

Answer If Did you participate in Wake County Public School System I... I participated in the Institute for Teacher Leaders Is Selected

Q55 I promote positive working relationships through collaboration.

	Prior to Institute for Teacher Leaders				After Completing Institute for Teacher Leaders			
	Strongly Disagree (1)	Disagree (2)	Agree (3)	Strongly Agree (4)	Strongly Disagree (1)	Disagree (2)	Agree (3)	Strongly Agree (4)
Please Answer Each Column (1)	❍	❍	❍	❍	❍	❍	❍	❍

Answer If Did you participate in Wake County Public School System I... I participated in the Institute for Teacher Leaders Is Selected

Q52 I collaborate with colleagues to improve the quality of learning in the school.

	Prior to Institute for Teacher Leaders				After Completing Institute for Teacher Leaders			
	Strongly Disagree (1)	Disagree (2)	Agree (3)	Strongly Agree (4)	Strongly Disagree (1)	Disagree (2)	Agree (3)	Strongly Agree (4)
Please Answer Each Column (1)	❍	❍	❍	❍	❍	❍	❍	❍

Answer If Did you participate in Wake County Public School System I... I participated in the Institute for Teacher Leaders Is Selected

Q51 I collaborate with school personnel on school improvement activities.

	Prior to Institute for Teacher Leaders				After Completing Institute for Teacher Leaders			
	Strongly Disagree (1)	Disagree (2)	Agree (3)	Strongly Agree (4)	Strongly Disagree (1)	Disagree (2)	Agree (3)	Strongly Agree (4)
Please Answer Each Column (1)	❍	❍	❍	❍	❍	❍	❍	❍

Answer If Did you participate in Wake County Public School System I... I participated in the Institute for Teacher Leaders Is Selected

Q45 I create a classroom that empowers students to collaborate.

	Prior to Institute for Teacher Leaders				After Completing Institute for Teacher Leaders			
	Strongly Disagree (1)	Disagree (2)	Agree (3)	Strongly Agree (4)	Strongly Disagree (1)	Disagree (2)	Agree (3)	Strongly Agree (4)
Please Answer Each Column (1)	❍	❍	❍	❍	❍	❍	❍	❍

Answer If Did you participate in Wake County Public School System I... I am a teammate of a member of the Institute for Teacher Leaders Is Selected

Q67 My teammate communicates to students a vision of being prepared for life in the 21st Century

- ❍ Strongly Disagree (1)
- ❍ Disagree (2)
- ❍ Agree (3)
- ❍ Strongly Agree (4)

Answer If Did you participate in Wake County Public School System I... I am a teammate of a member of the Institute for Teacher Leaders Is Selected

Q165 My teammate leads in the creation of a shared vision for our team.

- ❍ Strongly Disagree (1)
- ❍ Disagree (2)
- ❍ Agree (3)
- ❍ Strongly Agree (4)

Answer If Did you participate in Wake County Public School System I... I am a teammate of a member of the Institute for Teacher Leaders Is Selected

Q88 My teammate participates in developing policies to improve student learning.

- ❍ Strongly Disagree (1)
- ❍ Disagree (2)
- ❍ Agree (3)
- ❍ Strongly Agree (4)

Answer If Did you participate in Wake County Public School System I... I am a teammate of a member of the Institute for Teacher Leaders Is Selected

Q87 My teammate supports positive change in policies and practices that affect student learning.

- ❍ Strongly Disagree (1)
- ❍ Disagree (2)
- ❍ Agree (3)
- ❍ Strongly Agree (4)

Answer If Did you participate in Wake County Public School System I... I am a teammate of a member of the Institute for Teacher Leaders Is Selected

Q82 My teammate assumes a leadership role in implementing school improvement plan throughout the building.

- ❍ Strongly Disagree (1)
- ❍ Disagree (2)
- ❍ Agree (3)
- ❍ Strongly Agree (4)

Answer If Did you participate in Wake County Public School System I... I am a teammate of a member of the Institute for Teacher Leaders Is Selected

Q70 My teammate evaluates student progress using a variety of assessment data.

- ❍ Strongly Disagree (1)
- ❍ Disagree (2)
- ❍ Agree (3)
- ❍ Strongly Agree (4)

Answer If Did you participate in Wake County Public School System I... I am a teammate of a member of the Institute for Teacher Leaders Is Selected

Q86 My teammate seeks opportunities to lead decision-making processes.

- ❍ Strongly Disagree (1)
- ❍ Disagree (2)
- ❍ Agree (3)
- ❍ Strongly Agree (4)

Answer If Did you participate in Wake County Public School System I... I am a teammate of a member of the Institute for Teacher Leaders Is Selected

Q79 My teammate assumes a leadership role in the professional learning community.

- ❍ Strongly Disagree (1)
- ❍ Disagree (2)
- ❍ Agree (3)
- ❍ Strongly Agree (4)

Answer If Did you participate in Wake County Public School System I... I am a teammate of a member of the Institute for Teacher Leaders Is Selected

Q90 My teammate promotes the implementation of initiatives to improve education.

- ❍ Strongly Disagree (1)
- ❍ Disagree (2)
- ❍ Agree (3)
- ❍ Strongly Agree (4)

Answer If Did you participate in Wake County Public School System I... I am a teammate of a member of the Institute for Teacher Leaders Is Selected

Q91 My teammate provides strong supporting evidence for implementation of initiatives to improve education.

- ❍ Strongly Disagree (1)
- ❍ Disagree (2)
- ❍ Agree (3)
- ❍ Strongly Agree (4)

Answer If Did you participate in Wake County Public School System I... I am a teammate of a member of the Institute for Teacher Leaders Is Selected

Q83 My teammate promotes positive working relationships through professional growth activities.

- Strongly Disagree (1)
- Disagree (2)
- Agree (3)
- Strongly Agree (4)

Answer If Did you participate in Wake County Public School System I... I am a teammate of a member of the Institute for Teacher Leaders Is Selected

Q72 My teammate encourages students to take responsibility for their own learning.

- Strongly Disagree (1)
- Disagree (2)
- Agree (3)
- Strongly Agree (4)

Answer If Did you participate in Wake County Public School System I... I am a teammate of a member of the Institute for Teacher Leaders Is Selected

Q73 My teammate uses classroom assessment data to inform program planning.

- Strongly Disagree (1)
- Disagree (2)
- Agree (3)
- Strongly Agree (4)

Answer If Did you participate in Wake County Public School System I... I am a teammate of a member of the Institute for Teacher Leaders Is Selected

Q85 My teammate seeks opportunities to lead professional growth activities.

- Strongly Disagree (1)
- Disagree (2)
- Agree (3)
- Strongly Agree (4)

Answer If Did you participate in Wake County Public School System I... I am a teammate of a member of the Institute for Teacher Leaders Is Selected

Q74 My teammate empowers and encourages students to create and maintain a safe and supportive school and community environment.

- ❍ Strongly Disagree (1)
- ❍ Disagree (2)
- ❍ Agree (3)
- ❍ Strongly Agree (4)

Answer If Did you participate in Wake County Public School System I... I am a teammate of a member of the Institute for Teacher Leaders Is Selected

Q89 My teammate participates in implementing practices to improve student learning.

- ❍ Strongly Disagree (1)
- ❍ Disagree (2)
- ❍ Agree (3)
- ❍ Strongly Agree (4)

Answer If Did you participate in Wake County Public School System I... I am a teammate of a member of the Institute for Teacher Leaders Is Selected

Q92 My teammate knows the Code of Ethics for North Carolina Educators and the Standards for Professional Conduct.

- ❍ Strongly Disagree (1)
- ❍ Disagree (2)
- ❍ Agree (3)
- ❍ Strongly Agree (4)

Answer If Did you participate in Wake County Public School System I... I am a teammate of a member of the Institute for Teacher Leaders Is Selected

Q93 My teammate upholds the Code of Ethics for North Carolina Educators and the Standards for Professional Conduct.

- ❍ Strongly Disagree (1)
- ❍ Disagree (2)
- ❍ Agree (3)
- ❍ Strongly Agree (4)

Answer If Did you participate in Wake County Public School System I... I am a teammate of a member of the Institute for Teacher Leaders Is Selected

Q94 My teammate models the Code of Ethics for North Carolina Educators and the Standards for Professional Conduct.

- ❍ Strongly Disagree (1)
- ❍ Disagree (2)
- ❍ Agree (3)
- ❍ Strongly Agree (4)

Answer If Did you participate in Wake County Public School System I... I am a teammate of a member of the Institute for Teacher Leaders Is Selected

Q95 My teammate encourages others to uphold the Code of Ethics for North Carolina Educators and the Standards for Professional Conduct.

- ❍ Strongly Disagree (1)
- ❍ Disagree (2)
- ❍ Agree (3)
- ❍ Strongly Agree (4)

Answer If Did you participate in Wake County Public School System I... I am a teammate of a member of the Institute for Teacher Leaders Is Selected

Q84 My teammate promotes positive working relationships through collaboration.

- ❍ Strongly Disagree (1)
- ❍ Disagree (2)
- ❍ Agree (3)
- ❍ Strongly Agree (4)

Answer If Did you participate in Wake County Public School System I... I am a teammate of a member of the Institute for Teacher Leaders Is Selected

Q81 My teammate collaborates with colleagues to improve the quality of learning in the school..

- ❍ Strongly Disagree (1)
- ❍ Disagree (2)
- ❍ Agree (3)
- ❍ Strongly Agree (4)

Answer If Did you participate in Wake County Public School System I... I am a teammate of a member of the Institute for Teacher Leaders Is Selected

Q80 My teammate collaborates with school personnel on school improvement activities.

- ❍ Strongly Disagree (1)
- ❍ Disagree (2)
- ❍ Agree (3)
- ❍ Strongly Agree (4)

Answer If Did you participate in Wake County Public School System I... I am a teammate of a member of the Institute for Teacher Leaders Is Selected

Q71 My teammate creates a classroom culture that empowers students to collaborate.

- ❍ Strongly Disagree (1)
- ❍ Disagree (2)
- ❍ Agree (3)
- ❍ Strongly Agree (4)

Answer If Did you participate in Wake County Public School System I... I am a principal of a member of the Institute for Teacher Leaders Is Selected

Q96 My teacher communicates to students a vision of being prepared for life in the 21st Century.

- ❍ Strongly Disagree (1)
- ❍ Disagree (2)
- ❍ Agree (3)
- ❍ Strongly Agree (4)

Answer If Did you participate in Wake County Public School System I... I am a principal of a member of the Institute for Teacher Leaders Is Selected

Q166 My teacher leads in the creation of a shared vision for their team.

- ❍ Strongly Disagree (1)
- ❍ Disagree (2)
- ❍ Agree (3)
- ❍ Strongly Agree (4)

Answer If Did you participate in Wake County Public School System I... I am a principal of a member of the Institute for Teacher Leaders Is Selected

Q111 My teacher participates in developing policies to improve student learning.

- Strongly Disagree (1)
- Disagree (2)
- Agree (3)
- Strongly Agree (4)

Answer If Did you participate in Wake County Public School System I... I am a principal of a member of the Institute for Teacher Leaders Is Selected

Q110 My teacher supports positive change in policies and practices that affect student learning.

- Strongly Disagree (1)
- Disagree (2)
- Agree (3)
- Strongly Agree (4)

Answer If Did you participate in Wake County Public School System I... I am a principal of a member of the Institute for Teacher Leaders Is Selected

Q105 My teacher assumes a leadership role in implementing the school improvement plan throughout the building.

- Strongly Disagree (1)
- Disagree (2)
- Agree (3)
- Strongly Agree (4)

Answer If Did you participate in Wake County Public School System I... I am a principal of a member of the Institute for Teacher Leaders Is Selected

Q97 My teacher evaluates student progress using a variety of assessment data.

- Strongly Disagree (1)
- Disagree (2)
- Agree (3)
- Strongly Agree (4)

Answer If Did you participate in Wake County Public School System I... I am a principal of a member of the Institute for Teacher Leaders Is Selected

Q109 My teacher seeks opportunities to lead decision-making processes.

- Strongly Disagree (1)
- Disagree (2)
- Agree (3)
- Strongly Agree (4)

Answer If Did you participate in Wake County Public School System I... I am a principal of a member of the Institute for Teacher Leaders Is Selected

Q102 My teacher assumes a leadership role in the professional learning community.

- Strongly Disagree (1)
- Disagree (2)
- Agree (3)
- Strongly Agree (4)

Answer If Did you participate in Wake County Public School System I... I am a principal of a member of the Institute for Teacher Leaders Is Selected

Q113 My teacher promotes the implementation of initiatives to improve education.

- Strongly Disagree (1)
- Disagree (2)
- Agree (3)
- Strongly Agree (4)

Answer If Did you participate in Wake County Public School System I... I am a principal of a member of the Institute for Teacher Leaders Is Selected

Q114 My teacher provides strong supporting evidence for implementation of initiatives to improve education.

- Strongly Disagree (1)
- Disagree (2)
- Agree (3)
- Strongly Agree (4)

Answer If Did you participate in Wake County Public School System I... I am a principal of a member of the Institute for Teacher Leaders Is Selected

Q106 My teacher promotes positive working relationships through professional growth activities.

- Strongly Disagree (1)
- Disagree (2)
- Agree (3)
- Strongly Agree (4)

Answer If Did you participate in Wake County Public School System I... I am a principal of a member of the Institute for Teacher Leaders Is Selected

Q99 My teacher encourages students to take responsibility for their own learning.

- Strongly Disagree (1)
- Disagree (2)
- Agree (3)
- Strongly Agree (4)

Answer If Did you participate in Wake County Public School System I... I am a principal of a member of the Institute for Teacher Leaders Is Selected

Q100 My teacher uses classroom assessment data to inform program planning.

- Strongly Disagree (1)
- Disagree (2)
- Agree (3)
- Strongly Agree (4)

Answer If Did you participate in Wake County Public School System I... I am a principal of a member of the Institute for Teacher Leaders Is Selected

Q108 My teacher seeks opportunities to lead professional growth activities.

- Strongly Disagree (1)
- Disagree (2)
- Agree (3)
- Strongly Agree (4)

Answer If Did you participate in Wake County Public School System I... I am a principal of a member of the Institute for Teacher Leaders Is Selected

Q101 My teacher empowers and encourages students to create and maintain a safe and supportive school and community environment.

- Strongly Disagree (1)
- Disagree (2)
- Agree (3)
- Strongly Agree (4)

Answer If Did you participate in Wake County Public School System I... I am a principal of a member of the Institute for Teacher Leaders Is Selected

Q112 My teacher participates in implementing practices to improve student learning.

- Strongly Disagree (1)
- Disagree (2)
- Agree (3)
- Strongly Agree (4)

Answer If Did you participate in Wake County Public School System I... I am a principal of a member of the Institute for Teacher Leaders Is Selected

Q115 My teacher knows the Code of Ethics for North Carolina Educators and the Standards for Professional Conduct.

- Strongly Disagree (1)
- Disagree (2)
- Agree (3)
- Strongly Agree (4)

Answer If Did you participate in Wake County Public School System I... I am a principal of a member of the Institute for Teacher Leaders Is Selected

Q116 My teacher upholds the Code of Ethics for North Carolina Educators and the Standards for Professional Conduct.

- Strongly Disagree (1)
- Disagree (2)
- Agree (3)
- Strongly Agree (4)

Answer If Did you participate in Wake County Public School System I... I am a principal of a member of the Institute for Teacher Leaders Is Selected

Q117 My teacher models the Code of Ethics for North Carolina Educators and the Standards for Professional Conduct.

- ❍ Strongly Disagree (1)
- ❍ Disagree (2)
- ❍ Agree (3)
- ❍ Strongly Agree (4)

Answer If Did you participate in Wake County Public School System I... I am a principal of a member of the Institute for Teacher Leaders Is Selected

Q118 My teacher encourages others to uphold the Code of Ethics for North Carolina Educators and the Standards for Professional Conduct.

- ❍ Strongly Disagree (1)
- ❍ Disagree (2)
- ❍ Agree (3)
- ❍ Strongly Agree (4)

Answer If Did you participate in Wake County Public School System I... I am a principal of a member of the Institute for Teacher Leaders Is Selected

Q107 My teacher promotes positive working relationships through collaboration.

- ❍ Strongly Disagree (1)
- ❍ Disagree (2)
- ❍ Agree (3)
- ❍ Strongly Agree (4)

Answer If Did you participate in Wake County Public School System I... I am a principal of a member of the Institute for Teacher Leaders Is Selected

Q104 My teacher collaborates with colleagues to improve the quality of learning in the school.

- ❍ Strongly Disagree (1)
- ❍ Disagree (2)
- ❍ Agree (3)
- ❍ Strongly Agree (4)

Answer If Did you participate in Wake County Public School System I... I am a principal of a member of the Institute for Teacher Leaders Is Selected

Q103 My teacher collaborates with school personnel on school improvement activities.

- ❍ Strongly Disagree (1)
- ❍ Disagree (2)
- ❍ Agree (3)
- ❍ Strongly Agree (4)

Answer If Did you participate in Wake County Public School System I... I am a principal of a member of the Institute for Teacher Leaders Is Selected

Q98 My teacher creates a classroom culture that empowers students to collaborate.

- ❍ Strongly Disagree (1)
- ❍ Disagree (2)
- ❍ Agree (3)
- ❍ Strongly Agree (4)

APPENDIX E: SURVEY ITEM BY THEME

Theme and Question	Participant Survey Item Number	Teammate Survey Item Number	Principal Survey Item Number
Vision-Setting			
Communicates Vision	11	67	96
Creation of Shared Vision	164	165	166
Developing Policies	59	88	111
Positive Change	58	87	110
Results Orientation			
Assumes Leadership SIP	53	82	105
Evaluates Progress	44	70	97
Seeks Opportunities decision-making	57	86	109
Assumes Leadership PLT	50	79	102
Influence			
Promote Implementations	61	90	113
Provide Evidence	62	91	114
Promote Positive professional growth	54	83	106
Encourage Students Responsibility	46	72	99
Knowledge/Ability			
Uses classroom	47	73	100
Seek Opportunities professional growth	56	85	108
Empower and encourage students safe environment	49	74	101
Participate in implementing	60	89	112
Ethics			
Know	63	92	115
Uphold	64	93	116
Model	65	94	117
Encourage others	66	95	118
Collaboration			
Promote Positive Collaboration	55	84	107
Collaborate improve learning	52	81	104
Collaborate school Improvement	51	80	103
Creates classroom	45	71	98

APPENDIX F: INDIVIDUAL SURVEY ITEM – ANALYSIS OF PATTERNS

Vision-setting

Communicates vision to students

(I, My teammate, My teacher) communicate(s) to students the vision of being prepared for life in the 21st Century.								
Respondent Type	Participant Prior to Training		Participant After Training		Participants' Teammate		Participants' Principal	
	Frequency	Percent	Frequency	Percent	Frequency	Percent	Frequency	Percent
Strongly Disagree	0	0	1	3.2	0	0	0	0
Disagree	5	16.1	0	0	0	0	1	2.8
Agree	23	74.2	18	58.1	19	50	16	44.4
Strongly Agree	3	9.7	12	38.7	19	50	19	52.8
Total	31	100	31	100	38	100	36	100

Leads creation of a shared vision

(I, My teammate, My teacher) lead(s) in the creation of a shared vision for my team.								
Respondent Type	Participant Prior to Training		Participant After Training		Participants' Teammate		Participants' Principal	
	Frequency	Percent	Frequency	Percent	Frequency	Percent	Frequency	Percent
Strongly Disagree	1	3.1	0	0	1	2.6	0	0
Disagree	6	18.8	0	0	0	0	1	2.8
Agree	23	71.9	17	53.1	13	34.2	19	52.8
Strongly Agree	2	6.3	15	46.9	24	63.2	16	44.4
Total	32	100	32	100	38	100	36	100

Participates in developing policies.

(I, My teammate, My teacher) participate(s) in developing policies to improve student learning.								
Respondent Type	Participant Prior to Training		Participant After Training		Participants' Teammate		Participants' Principal	
	Frequency	Percent	Frequency	Percent	Frequency	Percent	Frequency	Percent
Strongly Disagree	0	0	0	0	0	0	0	0
Disagree	3	9.7	2	6.5	1	2.6	1	2.8
Agree	23	74.2	13	41.9	11	28.9	20	55.6
Strongly Agree	5	16.1	16	51.6	26	68.4	15	41.7
Total	31	100	31	31	38	100	36	100

Supports positive change in policies and practices

(I, My teammate, My Teacher) support(s) positive change in policies and practices that affect student learning.								
Respondent Type	Participant Prior to Training		Participant After Training		Participants' Teammate		Participants' Principal	
	Frequency	Percent	Frequency	Percent	Frequency	Percent	Frequency	Percent
Strongly Disagree	0	0	0	0	0	0	0	0
Disagree	2	6.3	0	0	0	0	2	5.6
Agree	18	56.3	9	28.1	12	31.6	15	41.7
Strongly Agree	12	37.5	23	71.9	26	68.4	19	52.8
Total	32	100	32	100	38	100	36	100

Results-Oriented/Accountability

Assumes leadership role for School Improvement Plan

(I, My teammate, My Teacher) assume(s) a leadership role in implementing the school improvement plan throughout the building.								
Respondent Type	Participant Prior to Training		Participant After Training		Participants' Teammate		Participants' Principal	
	Frequency	Percent	Frequency	Percent	Frequency	Percent	Frequency	Percent
Strongly Disagree	0	0	0	0	0	0	0	0
Disagree	12	37.5	2	6.3	3	7.9	2	5.6
Agree	16	50	18	56.3	10	26.3	15	41.7
Strongly Agree	4	12.5	12	37.5	25	65.8	19	52.8
Total	32	100	32	100	38	100	36	100

Evaluates student progress using data

(I, My teammate, My Teacher) evaluate(s) student progress using a variety of assessment data.								
Respondent Type	Participant Prior to Training		Participant After Training		Participants' Teammate		Participants' Principal	
	Frequency	Percent	Frequency	Percent	Frequency	Percent	Frequency	Percent
Strongly Disagree	0	0	0	0	0	0	0	0
Disagree	3	9.4	0	0	0	0	1	2.8
Agree	18	56.3	9	28.1	8	21.1	15	41.7
Strongly Agree	11	34.4	23	71.9	30	78.9	20	55.6
Total	32	100	32	100	38	100	36	100

Seeks opportunities to lead decision-making

(I, My teammate, My Teacher) seek(s) opportunities to lead decision-making processes.								
Respondent Type	Participant Prior to Training		Participant After Training		Participants' Teammate		Participants' Principal	
	Frequency	Percent	Frequency	Percent	Frequency	Percent	Frequency	Percent
Strongly Disagree	0	0	0	0	1	2.6	0	0
Disagree	12	37.5	1	3.1	3	7.9	3	8.3
Agree	17	53.1	22	68.8	8	21.1	17	47.2
Strongly Agree	3	9.4	9	28.1	26	68.4	16	44.4
Total	32	100	32	100	38	100	36	100

Assumes leadership role in PLT

(I, My teammate, My Teacher) assume(s) a leadership role in my professional learning community.								
Respondent Type	Participant Prior to Training		Participant After Training		Participants' Teammate		Participants' Principal	
	Frequency	Percent	Frequency	Percent	Frequency	Percent	Frequency	Percent
Strongly Disagree	0	0	0	0	0	0	0	0
Disagree	9	28.1	2	6.3	3	7.9	1	2.8
Agree	14	43.8	16	50	8	21.1	17	47.2
Strongly Agree	9	28.1	14	43.8	27	71.1	18	50
Total	32	100	32	100	38	100	36	100

Influence

Promotes the implementation of initiatives

(I, My teammate, My Teacher) promote(s) the implementation of initiatives to improve education.								
Respondent Type	Participant Prior to Training		Participant After Training		Participants' Teammate		Participants' Principal	
	Frequency	Percent	Frequency	Percent	Frequency	Percent	Frequency	Percent
Strongly Disagree	0	0	0	0	0	0	0	0
Disagree	4	12.5	1	3.1	0	0	2	5.6
Agree	23	71.9	18	56.3	14	37.8	15	41.7
Strongly Agree	5	15.6	13	40.6	23	62.2	19	52.8
Total	32	100	32	100	37	100	36	100

Provides strong supporting evidence

(I, My teammate, My Teacher) provide(s) strong supporting evidence for implementation of initiatives to improve education.								
Respondent Type	Participant Prior to Training		Participant After Training		Participants' Teammate		Participants' Principal	
	Frequency	Percent	Frequency	Percent	Frequency	Percent	Frequency	Percent
Strongly Disagree	0	0	0	0	0	0	0	0
Disagree	7	21.9	1	3.1	0	0	2	5.6
Agree	24	75	20	62.5	18	47.4	19	52.8
Strongly Agree	1	3.1	11	34.4	20	52.6	15	41.7
Total	32	100	32	100	38	100	36	100

Promotes positive relationships

(I, My teammate, My Teacher) promote(s) positive working relationships through professional growth activities.								
Respondent Type	Participant Prior to Training		Participant After Training		Participants' Teammate		Participants' Principal	
	Frequency	Percent	Frequency	Percent	Frequency	Percent	Frequency	Percent
Strongly Disagree	0	0	0	0	1	2.6	0	0
Disagree	5	15.6	0	0	1	2.6	2	5.6
Agree	21	65.6	16	50	13	34.2	14	38.9
Strongly Agree	6	18.8	16	50	23	60.5	20	55.6
Total	32	100	32	100	38	100	36	100

Encourages students to take responsibility

(I, My teammate, My Teacher) encourage(s) students to take responsibility for their own learning.								
Respondent Type	Participant Prior to Training		Participant After Training		Participants' Teammate		Participants' Principal	
	Frequency	Percent	Frequency	Percent	Frequency	Percent	Frequency	Percent
Strongly Disagree	0	0	0	0	0	0	0	0
Disagree	0	0	0	0	0	0	1	2.8
Agree	17	53.1	10	31.3	10	26.3	12	33.3
Strongly Agree	15	46.9	22	68.8	28	73.7	23	63.9
Total	32	100	32	100	38	100	36	100

Knowledge/Ability

Uses classroom assessment data

(I, My teammate, My Teacher) use(s) classroom assessment data to inform program planning.								
Respondent Type	Participant Prior to Training		Participant After Training		Participants' Teammate		Participants' Principal	
	Frequency	Percent	Frequency	Percent	Frequency	Percent	Frequency	Percent
Strongly Disagree	0	0	0	0	0	0	0	0
Disagree	5	15.6	0	0	0	0	2	5.6
Agree	20	62.5	14	43.8	11	28.9	16	44.4
Strongly Agree	7	21.9	18	56.3	27	71.1	18	50
Total	32	100	32	100	38	100	36	100

Seeks opportunities to lead professional growth activities

(I, My teammate, My Teacher) seek(s) opportunities to lead professional growth activities.								
Respondent Type	Participant Prior to Training		Participant After Training		Participants' Teammate		Participants' Principal	
	Frequency	Percent	Frequency	Percent	Frequency	Percent	Frequency	Percent
Strongly Disagree	1	3.1	0	0	0	0	1	2.8
Disagree	14	43.8	7	21.9	6	15.8	7	19.4
Agree	15	46.9	18	56.9	10	26.3	12	33.3
Strongly Agree	2	6.3	7	21.9	22	57.9	16	44.4
Total	32	100	32	100	38	100	36	100

Empowers and encourages students

(I, My teammate, My Teacher) empower(s) and encourage(s) students to create and maintain a safe and supportive school and community environment.								
Respondent Type	Participant Prior to Training		Participant After Training		Participants' Teammate		Participants' Principal	
	Frequency	Percent	Frequency	Percent	Frequency	Percent	Frequency	Percent
Strongly Disagree	0	0	0	0	0	0	0	0
Disagree	0	0	0	0	1	2.6	1	2.8
Agree	15	48.4	13	40.6	9	23.7	15	41.7
Strongly Agree	16	51.6	19	59.4	28	73.7	20	55.6
Total	31	100	32	100	38	100	36	100

Participates in implementing practices to improve learning

(I, My teammate, My Teacher) participate(s) in implementing practices to improve student learning.								
Respondent Type	Participant Prior to Training		Participant After Training		Participants' Teammate		Participants' Principal	
	Frequency	Percent	Frequency	Percent	Frequency	Percent	Frequency	Percent
Strongly Disagree	0	0	0	0	0	0	0	0
Disagree	0	0	0	0	0	0	2	5.6
Agree	19	59.4	9	28.1	7	18.4	13	36.1
Strongly Agree	13	40.6	23	71.9	31	81.6	21	58.3
Total	32	100	32	100	38	100	36	100

Ethics

Knows the code of ethics

(I, My teammate, My Teacher) know(s) the Code of Ethics for North Carolina Educators and the Standards for Professional Conduct.								
Respondent Type	Participant Prior to Training		Participant After Training		Participants' Teammate		Participants' Principal	
	Frequency	Percent	Frequency	Percent	Frequency	Percent	Frequency	Percent
Strongly Disagree	0	0	0	0	0	0	0	0
Disagree	3	9.4	0	0	0	0	0	0
Agree	22	68.8	18	56.3	10	26.3	10	28.6
Strongly Agree	7	21.9	14	43.8	28	73.7	25	71.4
Total	32	100	32	100	38	100	35	100

Upholds the code of ethics

(I, My teammate, My Teacher) uphold(s) the Code of Ethics for North Carolina Educators and the Standards for Professional Conduct.								
Respondent Type	Participant Prior to Training		Participant After Training		Participants' Teammate		Participants' Principal	
	Frequency	Percent	Frequency	Percent	Frequency	Percent	Frequency	Percent
Strongly Disagree	0	0	0	0	0	0	0	0
Disagree	0	0	0	0	1	2.6	1	2.9
Agree	16	50	11	34.4	9	23.7	10	28.6
Strongly Agree	16	50	21	65.6	28	73.7	24	68.6
Total	32	100	32	100	38	100	35	100

Models the code of ethics

(I, My teammate, My Teacher) model(s) the Code of Ethics for North Carolina Educators and the Standards for Professional Conduct.								
Respondent Type	Participant Prior to Training		Participant After Training		Participants' Teammate		Participants' Principal	
	Frequency	Percent	Frequency	Percent	Frequency	Percent	Frequency	Percent
Strongly Disagree	0	0	0	0	0	0	0	0
Disagree	0	0	0	0	1	2.6	1	2.9
Agree	18	56.3	11	34.4	8	21.1	8	22.9
Strongly Agree	14	43.8	21	65.6	29	76.3	26	74.3
Total	32	100	32	100	38	100	35	100

Encourages others to uphold the code of ethics

(I, My teammate, My Teacher) encourage(s) others to uphold the Code of Ethics for North Carolina Educators and the Standards for Professional Conduct.								
Respondent Type	Participant Prior to Training		Participant After Training		Participants' Teammate		Participants' Principal	
	Frequency	Percent	Frequency	Percent	Frequency	Percent	Frequency	Percent
Strongly Disagree	0	0	0	0	0	0	0	0
Disagree	7	21.9	2	6.3	2	5.3	0	0
Agree	16	50	16	50	9	23.7	15	42.9
Strongly Agree	9	28.1	14	43.8	27	71.1	20	57.1
Total	32	100	32	100	38	100	35	100

Collaboration

Promotes positive working relationships through collaboration

(I, My teammate, My Teacher) promote(s) positive working relationships through collaboration.								
Respondent Type	Participant Prior to Training		Participant After Training		Participants' Teammate		Participants' Principal	
	Frequency	Percent	Frequency	Percent	Frequency	Percent	Frequency	Percent
Strongly Disagree	0	0	0	0	1	2.6	0	0
Disagree	2	6.3	0	0	0	0	3	8.3
Agree	21	65.6	8	25	11	28.9	12	33.3
Strongly Agree	9	28.1	24	75	26	68.4	21	58.3
Total	32	100	32	100	38	100	36	100

Collaborates with colleagues to improve quality of learning

(I, My teammate, My Teacher) collaborate(s) with colleagues to improve the quality of learning in the school.								
Respondent Type	Participant Prior to Training		Participant After Training		Participants' Teammate		Participants' Principal	
	Frequency	Percent	Frequency	Percent	Frequency	Percent	Frequency	Percent
Strongly Disagree	0	0	0	0	0	0	0	0
Disagree	2	6.3	0	0	0	0	3	8.3
Agree	21	65.6	7	21.9	8	21.6	12	33.3
Strongly Agree	9	28.1	25	78.1	29	78.4	21	58.3
Total	32	100	32	100	37	100	36	100

Collaborates with school personnel on school improvement

(I, My teammate, My Teacher) collaborate(s) with school personnel on school improvement activities.								
Respondent Type	Participant Prior to Training		Participant After Training		Participants' Teammate		Participants' Principal	
	Frequency	Percent	Frequency	Percent	Frequency	Percent	Frequency	Percent
Strongly Disagree	0	0	0	0	0	0	0	0
Disagree	3	9.4	0	0	2	5.3	0	0
Agree	23	71.9	15	46.9	10	26.3	13	36.1
Strongly Agree	6	18.8	17	53.1	26	68.4	23	63.9
Total	32	100	32	100	38	100	36	100

Creates a classroom that empowers students to collaborate

(I, My teammate, My Teacher) create a classroom that empowers students to collaborate.								
Respondent Type	Participant Prior to Training		Participant After Training		Participants' Teammate		Participants' Principal	
	Frequency	Percent	Frequency	Percent	Frequency	Percent	Frequency	Percent
Strongly Disagree	0	0	0	0	0	0	0	0
Disagree	1	3.1	1	3.1	0	0	1	2.9
Agree	16	50	8	25	9	23.7	13	36.1
Strongly Agree	15	46.9	23	71.9	29	76.3	21	60
Total	32	100	32	100	38	100	35	100

APPENDIX G: SURVEY RESPONSES BY THEMES: MEANS, MEDIANS, AND MODES

Vision-Setting Means, Medians, and Modes

Vision – Setting		Vision – Prior to Training	Vision - After Training	Vision - Teammates	Vision - Principals
N	Valid	30	30	38	31
Mean		11.90	13.80	14.53	13.74
Median		12.00	14.00	15.00	14.00
Mode		12	15	16	12[a]
Std. Deviation		1.668	1.648	1.767	2.016

a. Multiple modes exist. The smallest value is shown

Combined results-oriented/accountability means, medians, modes.

Results Oriented/ Accountability		Results Oriented/ Accountability – Prior to Training	Results Oriented/ Accountability - After Training	Results Oriented/ Accountability - Teammates	Results Oriented/ Accountability - Principals
N	Valid	30	30	38	31
Mean		11.73	13.63	14.55	13.81
Median		12.00	14.00	15.00	14.00
Mode		13	13	16	15
Std. Deviation		1.701	1.426	2.063	1.851

a. Multiple modes exist. The smallest value is shown

Combined influence means, medians, and modes

Influence		Influence – Prior to Training	Influence - After Training	Influence - Teammates	Influence - Principals
N	Valid	30	30	38	31
Mean		12.30	13.97	14.42	13.81
Median		12.00	14.00	15.00	14.00
Mode		12	14	16	16
Std. Deviation		1.343	1.402	1.780	2.007

a. Multiple modes exist. The smallest value is shown

Combined knowledge/ability means, medians, and modes

Knowledge/Ability		Knowledge/ Ability – Prior to Training	Knowledge/ Ability - After Training	Knowledge/ Ability - Teammates	Knowledge/Ability - Principals
N	Valid	30	30	38	31
Mean		12.37	13.80	14.66	13.65
Median		12.00	14.00	15.00	13.00
Mode		12	14[a]	16	16
Std. Deviation		1.732	1.518	1.681	2.184

a. Multiple modes exist. The smallest value is shown

Combined ethics means, medians, and modes

Ethics		Ethics – Prior to Training	Ethics - After Training	Ethics - Teammates	Ethics - Principals
N	Valid	30	30	38	31
Mean		13.13	14.30	14.84	14.67
Median		12.50	14.50	16.00	16.00
Mode		12	16	16	16
Std. Deviation		1.776	1.745	1.925	1.826

a. Multiple modes exist. The smallest value is shown

Combined collaboration means, medians, modes

Collaboration		Collaboration Prior to Training	Collaboration After Training	Collaboration Teammates	Collaboration Principals
N	Valid	30	30	38	31
Mean		12.80	14.73	14.82	14.23
Median		12.00	15.00	16.00	16.00
Mode		12	16	16	16
Std. Deviation		1.518	1.437	1.814	2.140

a. Multiple modes exist. The smallest value is shown

APPENDIX H: FREQUENCIES BY THEME

Frequencies – Prior to Training

		VisionPre	ResultsPre	InfluencePre	KnowledgePre	EthicsPre	CollaborationPre
N	Valid	30	30	30	30	30	30
	Missing	71	71	71	71	71	71
Mean		11.90	11.73	12.30	12.37	13.13	12.80
Median		12.00	12.00	12.00	12.00	12.50	12.00
Mode		12	13	12	12	12	12
Std. Deviation		1.668	1.701	1.343	1.732	1.776	1.518

Frequencies – After training

Statistics

		VisionPost	ResultsPost	InfluencePost	KnowledgePost	EthicsPost	CollaborationPost
N	Valid	30	30	30	30	30	30
	Missing	71	71	71	71	71	71
Mean		13.80	13.63	13.97	13.80	14.30	14.73
Median		14.00	14.00	14.00	14.00	14.50	15.00
Mode		15	13	14	14[a]	16	16
Std. Deviation		1.648	1.426	1.402	1.518	1.745	1.437

Statistics

		VisionPost	ResultsPost	InfluencePost	KnowledgePost	EthicsPost	CollaborationPost
N	Valid	30	30	30	30	30	30
	Missing	71	71	71	71	71	71
Mean		13.80	13.63	13.97	13.80	14.30	14.73
Median		14.00	14.00	14.00	14.00	14.50	15.00
Mode		15	13	14	14[a]	16	16
Std. Deviation		1.648	1.426	1.402	1.518	1.745	1.437

a. Multiple modes exist. The smallest value is shown

Frequencies – Teammates

		VisionTeam	ResultsTeam	InfluenceTeam	KnowledgeTeam	EthicsTeam	CollaborationTeam
N	Valid	38	38	38	38	38	38
	Missing	63	63	63	63	63	63
Mean		14.53	14.55	14.42	14.66	14.84	14.82
Median		15.00	15.00	15.00	15.00	16.00	16.00
Mode		16	16	16	16	16	16
Std. Deviation		1.767	2.063	1.780	1.681	1.925	1.814

Frequencies – Principals

		VisionPrin	ResultsPrin	influencePrin	KnowledgePrin	EthicsPrin	CollaborationPrin
N	Valid	31	31	31	31	30	31
	Missing	70	70	70	70	71	70
Mean		13.74	13.81	13.81	13.65	14.67	14.23
Median		14.00	14.00	14.00	13.00	16.00	16.00
Mode		12[a]	15	16	16	16	16
Std. Deviation		2.016	1.851	2.007	2.184	1.826	2.140

a. Multiple modes exist. The smallest value is shown

APPENDIX I: FREQUENCIES BY INDIVIDUAL QUESTION

		I communicate to students the vision of being prepared for life in the 21st Century. : Prior to Institute for Teacher Leaders-Please Answer Each Column	I communicate to students the vision of being prepared for life in the 21st Century. : After Completing Institute for Teacher Leaders-Please Answer Each Column	I lead in the creation of a shared vision for my team. : Prior to Institute for Teacher Leaders-Please Answer Each Column	I lead in the creation of a shared vision for my team. : After Completing Institute for Teacher Leaders-Please Answer Each Column	I participate in developing policies to improve student learning. : Prior to Institute for Teacher Leaders-Please Answer Each Column	I participate in developing policies to improve student learning. : After Completing Institute for Teacher Leaders-Please Answer Each Column	I support positive change in policies and practices that affect student learning. : Prior to Institute for Teacher Leaders-Please Answer Each Column	I support positive change in policies and practices that affect student learning. : After Completing Institute for Teacher Leaders-Please Answer Each Column
N	Valid	31	31	32	32	31	31	32	32
	Missing	70	70	69	69	70	70	69	69
Mean		2.94	3.32	2.81	3.47	3.06	3.45	3.31	3.72
Median		3.00	3.00	3.00	3.00	3.00	4.00	3.00	4.00
Mode		3	3	3	3	3	4	3	4
Std. Deviation		.512	.653	.592	.507	.512	.624	.592	.457

		I assume a leadership role in implementing the school improvement plan throughout the building. : Prior to Institute for Teacher Leaders-Please Answer Each Column	I assume a leadership role in implementing the school improvement plan throughout the building. : After Completing Institute for Teacher Leaders-Please Answer Each Column	I evaluate student progress using a variety of assessment data. : Prior to Institute for Teacher Leaders-Please Answer Each Column	I evaluate student progress using a variety of assessment data. : After Completing Institute for Teacher Leaders-Please Answer Each Column	I seek opportunities to lead decision-making processes. : Prior to Institute for Teacher Leaders-Please Answer Each Column	I seek opportunities to lead decision-making processes. : After Completing Institute for Teacher Leaders-Please Answer Each Column	I assume a leadership role in my professional learning community. : Prior to Institute for Teacher Leaders-Please Answer Each Column	I assume a leadership role in my professional learning community. : After Completing Institute for Teacher Leaders-Please Answer Each Column
N	Valid	32	32	32	32	32	32	32	32
	Missing	69	69	69	69	69	69	69	69
Mean		2.75	3.31	3.25	3.72	2.72	3.25	3.00	3.38
Median		3.00	3.00	3.00	4.00	3.00	3.00	3.00	3.00
Mode		3	3	3	4	3	3	3	3
Std. Deviation		.672	.592	.622	.457	.634	.508	.762	.609

		I promote the implementation of initiatives to improve education. : Prior to Institute for Teacher Leaders-Please Answer Each Column	I promote the implementation of initiatives to improve education. : After Completing Institute for Teacher Leaders-Please Answer Each Column	I provide strong supporting evidence for implementation of initiatives to improve education. : Prior to Institute for Teacher Leaders-Please Answer Each Column	I provide strong supporting evidence for implementation of initiatives to improve education. : After Completing Institute for Teacher Leaders-Please Answer Each Column	I promote positive working relationships through professional growth activities. : Prior to Institute for Teacher Leaders-Please Answer Each Column	I promote positive working relationships through professional growth activities. : After Completing Institute for Teacher Leaders-Please Answer Each Column	I encourage students to take responsibility for their own learning. : Prior to Institute for Teacher Leaders-Please Answer Each Column	I encourage students to take responsibility for their own learning. : After Completing Institute for Teacher Leaders-Please Answer Each Column
N	Valid	32	32	32	32	32	32	32	32
	Missing	69	69	69	69	69	69	69	69
Mean		3.03	3.38	2.81	3.31	3.03	3.50	3.47	3.69
Median		3.00	3.00	3.00	3.00	3.00	3.50	3.00	4.00
Mode		3	3	3	3	3	3[a]	3	4
Std. Deviation		.538	.554	.471	.535	.595	.508	.507	.471

a. Multiple modes exist. The smallest value is shown

		I use classroom assessment data to inform program planning. : Prior to Institute for Teacher Leaders-Please Answer Each Column	I use classroom assessment data to inform program planning. : After Completing Institute for Teacher Leaders-Please Answer Each Column	I seek opportunities to lead professional growth activities. : Prior to Institute for Teacher Leaders-Please Answer Each Column	I seek opportunities to lead professional growth activities. : After Completing Institute for Teacher Leaders-Please Answer Each Column	I empower and encourage students to create and maintain a safe and supportive school and community e... : Prior to Institute for Teacher Leaders-Please Answer Each Column	I empower and encourage students to create and maintain a safe and supportive school and community e... : After Completing Institute for Teacher Leaders-Please Answer Each Column	I participate in implementing practices to improve student learning. : Prior to Institute for Teacher Leaders-Please Answer Each Column	I participate in implementing practices to improve student learning. : After Completing Institute for Teacher Leaders-Please Answer Each Column
N	Valid	32	32	32	32	31	32	32	32
	Missing	69	69	69	69	70	69	69	69
Mean		3.06	3.56	2.56	3.00	3.52	3.59	3.41	3.72
Median		3.00	4.00	3.00	3.00	4.00	4.00	3.00	4.00
Mode		3	4	3	3	4	4	3	4
Std. Deviation		.619	.504	.669	.672	.508	.499	.499	.457

		I know the Code of Ethics for North Carolina Educators and the Standards for Professional Conduct. : Prior to Institute for Teacher Leaders-Please Answer Each Column	I know the Code of Ethics for North Carolina Educators and the Standards for Professional Conduct. : After Completing Institute for Teacher Leaders-Please Answer Each Column	I uphold the Code of Ethics for North Carolina Educators and the Standards for Professional Conduct. : Prior to Institute for Teacher Leaders-Please Answer Each Column	I uphold the Code of Ethics for North Carolina Educators and the Standards for Professional Conduct. : After Completing Institute for Teacher Leaders-Please Answer Each Column	I model the Code of Ethics for North Carolina Educators and the Standards for Professional Conduct. : Prior to Institute for Teacher Leaders-Please Answer Each Column	I model the Code of Ethics for North Carolina Educators and the Standards for Professional Conduct. : After Completing Institute for Teacher Leaders-Please Answer Each Column	I encourage others to uphold the Code of Ethics for North Carolina Educators and the Standards for P... : Prior to Institute for Teacher Leaders-Please Answer Each Column	I encourage others to uphold the Code of Ethics for North Carolina Educators and the Standards for P... : After Completing Institute for Teacher Leaders-Please Answer Each Column
N	Valid	32	32	32	32	32	32	32	32
	Missing	69	69	69	69	69	69	69	69
Mean		3.13	3.44	3.50	3.66	3.44	3.66	3.06	3.38
Median		3.00	3.00	3.50	4.00	3.00	4.00	3.00	3.00
Mode		3	3	3[a]	4	3	4	3	3
Std. Deviation		.554	.504	.508	.483	.504	.483	.716	.609

a. Multiple modes exist. The smallest value is shown

		I promote positive working relationships through collaboration. : Prior to Institute for Teacher Leaders-Please Answer Each Column	I promote positive working relationships through collaboration. : After Completing Institute for Teacher Leaders-Please Answer Each Column	I collaborate with colleagues to improve the quality of learning in the school. : Prior to Institute for Teacher Leaders-Please Answer Each Column	I collaborate with colleagues to improve the quality of learning in the school. : After Completing Institute for Teacher Leaders-Please Answer Each Column	I collaborate with school personnel on school improvement activities. : Prior to Institute for Teacher Leaders-Please Answer Each Column	I collaborate with school personnel on school improvement activities. : After Completing Institute for Teacher Leaders-Please Answer Each Column	I create a classroom that empowers students to collaborate. : Prior to Institute for Teacher Leaders-Please Answer Each Column	I create a classroom that empowers students to collaborate. : After Completing Institute for Teacher Leaders-Please Answer Each Column
N	Valid	32	32	32	32	32	32	32	32
	Missing	69	69	69	69	69	69	69	69
Mean		3.22	3.75	3.22	3.78	3.09	3.53	3.44	3.69
Median		3.00	4.00	3.00	4.00	3.00	4.00	3.00	4.00
Mode		3	4	3	4	3	4	3	4
Std. Deviation		.553	.440	.553	.420	.530	.507	.564	.535

		My teammate communicates to students a vision of being prepared for life in the 21st Century	My teammate leads in the creation of a shared vision for our team.	My teammate participates in developing policies to improve student learning.	My teammate supports positive change in policies and practices that affect student learning.
N	Valid	38	38	38	38
	Missing	63	63	63	63
Mean		3.50	3.58	3.66	3.68
Median		3.50	4.00	4.00	4.00
Mode		3[a]	4	4	4
Std. Deviation		.507	.642	.534	.471

a. Multiple modes exist. The smallest value is shown

		My teammate assumes a leadership role in implementing school improvement plan throughout the building.	My teammate evaluates student progress using a variety of assessment data.	My teammate seeks opportunities to lead decision-making processes.	My teammate assumes a leadership role in the professional learning community.
N	Valid	38	38	38	38
	Missing	63	63	63	63
Mean		3.58	3.79	3.55	3.63
Median		4.00	4.00	4.00	4.00
Mode		4	4	4	4
Std. Deviation		.642	.413	.760	.633

		My teammate promotes the implementation of initiatives to improve education.	My teammate provides strong supporting evidence for implementation of initiatives to improve educati...	My teammate promotes positive working relationships through professional growth activities.	My teammate encourages students to take responsibility for their own learning.
N	Valid	37	38	38	38
	Missing	64	63	63	63
Mean		3.62	3.53	3.53	3.74
Median		4.00	4.00	4.00	4.00
Mode		4	4	4	4
Std. Deviation		.492	.506	.687	.446

		My teammate uses classroom assessment data to inform program planning.	My teammate seeks opportunities to lead professional growth activities.	My teammate empowers and encourages students to create and maintain a safe and supportive school and...	My teammate participates in implementing practices to improve student learning.
N	Valid	38	38	38	38
	Missing	63	63	63	63
Mean		3.71	3.42	3.71	3.82
Median		4.00	4.00	4.00	4.00
Mode		4	4	4	4
Std. Deviation		.460	.758	.515	.393

		My teammate knows the Code of Ethics for North Carolina Educators and the Standards for Professional...	My teammate upholds the Code of Ethics for North Carolina Educators and the Standards for Profession...	My teammate models the Code of Ethics for North Carolina Educators and the Standards for Professiona...	My teammate encourages others to uphold the Code of Ethics for North Carolina Educators and the Stan...
N	Valid	38	38	38	38
	Missing	63	63	63	63
Mean		3.74	3.71	3.74	3.66
Median		4.00	4.00	4.00	4.00
Mode		4	4	4	4
Std. Deviation		.446	.515	.503	.582

		My teammate promotes positive working relationships through collaboration.	My teammate collaborates with colleagues to improve the quality of learning in the school..	My teammate collaborates with school personnel on school improvement activities.	My teammate creates a classroom culture that empowers students to collaborate.
N	Valid	38	37	38	38
	Missing	63	64	63	63
Mean		3.63	3.78	3.63	3.76
Median		4.00	4.00	4.00	4.00
Mode		4	4	4	4
Std. Deviation		.633	.417	.589	.431

		My teacher communicates to students a vision of being prepared for life in the 21st Century.	My teacher leads in the creation of a shared vision for their team.	My teacher participates in developing policies to improve student learning.	My teacher supports positive change in policies and practices that affect student learning.
N	Valid	31	31	31	31
	Missing	70	70	70	70
Mean		3.45	3.42	3.39	3.48
Median		3.00	3.00	3.00	4.00
Mode		3[a]	3	3	4
Std. Deviation		.568	.564	.558	.626

a. Multiple modes exist. The smallest value is shown

		My teacher assumes a leadership role in implementing the school improvement plan throughout the buil...	My teacher evaluates student progress using a variety of assessment data.	My teacher seeks opportunities to lead decision-making processes.	My teacher assumes a leadership role in the professional learning community.
N	Valid	31	31	31	31
	Missing	70	70	70	70
Mean		3.45	3.52	3.39	3.45
Median		4.00	4.00	3.00	3.00
Mode		4	4	3	3[a]
Std. Deviation		.624	.570	.615	.568

a. Multiple modes exist. The smallest value is shown

		My teacher promotes the implementation of initiatives to improve education.	My teacher provides strong supporting evidence for implementation of initiatives to improve educatio...	My teacher promotes positive working relationships through professional growth activities.	My teacher encourages students to take responsibility for their own learning.
N	Valid	31	31	31	31
	Missing	70	70	70	70
Mean		3.45	3.35	3.48	3.58
Median		4.00	3.00	4.00	4.00
Mode		4	3	4	4
Std. Deviation		.624	.608	.626	.564

		My teacher uses classroom assessment data to inform program planning.	My teacher seeks opportunities to lead professional growth activities.	My teacher empowers and encourages students to create and maintain a safe and supportive school and...	My teacher participates in implementing practices to improve student learning.
N	Valid	31	31	31	31
	Missing	70	70	70	70
Mean		3.42	3.23	3.52	3.48
Median		3.00	3.00	4.00	4.00
Mode		4	4	4	4
Std. Deviation		.620	.845	.570	.626

		My teacher knows the Code of Ethics for North Carolina Educators and the Standards for Professional...	My teacher upholds the Code of Ethics for North Carolina Educators and the Standards for Professiona...	My teacher models the Code of Ethics for North Carolina Educators and the Standards for Professional...	My teacher encourages others to uphold the Code of Ethics for North Carolina Educators and the Stand...
N	Valid	30	30	30	30
	Missing	71	71	71	71
Mean		3.73	3.67	3.73	3.57
Median		4.00	4.00	4.00	4.00
Mode		4	4	4	4
Std. Deviation		.450	.547	.521	.504

		My teacher promotes positive working relationships through collaboration.	My teacher collaborates with colleagues to improve the quality of learning in the school.	My teacher collaborates with school personnel on school improvement activities.	My teacher creates a classroom culture that empowers students to collaborate.
N	Valid	31	31	31	30
	Missing	70	70	70	71
Mean		3.52	3.52	3.61	3.60
Median		4.00	4.00	4.00	4.00
Mode		4	4	4	4
Std. Deviation		.626	.626	.495	.563

APPENDIX J: PARTICIPANT APPROVAL FORM

TO: Institute for Teacher Leaders Participants

FROM: Jim Argent, Wake County Public Schools Principal and East Carolina University Doctoral Candidate

RE: Research Study on Institute for Teacher Leaders

DATE: February 16, 2011

My name is Jim Argent and I am currently a doctoral candidate in the Department of Educational Leadership in the College of Education at East Carolina University. I am conducting a dissertation study on the Institute for Teacher Leaders program. It will provide a program evaluation of the Institute for Teacher Leaders program that you participated in through the Wake County Public School System Office of Professional Development.

I would like to invite you to participate in this study by filling out a survey on your perception of your leadership abilities after completing the coursework for the Institute for Teacher Leaders. In addition, I would like to survey your teammates and your principal to obtain their perceptions of your leadership abilities. No names or identifying information will used in the reporting of results, or in any publication about the research. Individual information will be coded and identifying markers will be destroyed to maintain the anonymity of individual study participants. The survey should take approximately fifteen minutes to complete. Your participation is certainly voluntary, with no penalty if you choose not to participate.

The results of this study will be used in context of my dissertation studying the Institute for Teacher Leaders, entitled An Analysis of the Impact of a Teacher Leadership Program on the Perception of Leadership Skills. Your responses would help us understand how the teacher leadership program supported stronger teacher leadership. Once the survey data is compiled, I will compare the responses of the teachers who participated in the cohort with the responses of their teammates and principals.

I would like to invite you to an information session to discuss the study and the survey. I will host two meetings at Lake Myra Elementary School. One meeting will be on February 28 at 5:30 pm and one will be on March 2 at 5:30. If you are not able to attend either meeting, I can arrange an individual meeting to discuss the study or send information to you electronically. Please return the second page of this e-mail with your intent to participate and your intent to attend the informational meeting. Regardless of your participation, if you would like a summary of my findings, please e-mail argentj88@students.ecu.edu with that request.

If you have any questions or concerns, you may contact me at (919) 435-7609 or via e-mail at argentj88@students.ecu.edu. Both the review board at East Carolina University and Wake County Public Schools have approved this study. You may also contact David Holdzkom at dholdzkom@wcpss.net with any concerns about the use of this study in the school system. Thank you for your time and consideration in this matter.

An Analysis of the Impact of a Teacher Leadership Program on the Perception of Leadership Skills

Participant's Name:_____

Permission: (Please check one)

____ I will participate in the research study. I give permission to use my own survey results and the results of my teammates and my principal.

____ I will not participate in the research study.

Information Session: (Please check one)

____ I will attend the February 28 information meeting.

____ I will attend the March 2 information meeting.

____ I would like an individual meeting.

____ I would like to fill out the survey without a meeting.

APPENDIX K: DISTRICT APPROVAL FORM

WAKE COUNTY
PUBLIC SCHOOL SYSTEM

RESEARCH STUDY APPLICATION

"Save As" in your hard drive. Use the Tab Key to move around

Date of Submission: Nov. 18, 2010
Proposal Number: _____ *(E&R use only)*
Title of Proposal: Proposed Project Starting Date: January 5, 2011
Ending Date: December 11, 2011
Research Applicant's Name: James L. Argent
Address: 6412 Ridgemount Street
City: Wake Forest
State: NC
Zip: 27587
Home Telephone Number: Area Code/No. 919/ 435-7609
Work Telephone Number: Area Code/No. 919/ 365-8969 *Ext:*
E-mail Address: argentj88@students.ecu.edu
Fax: Area Code/No. 919/ 365-8968

Sponsor of Research Project Dr. Lynn Bradshaw
Facility, Staff or Agency: East Carolina University
Address: Ragsdale Hall 125
City: Greenville
State: NC
Zip: 27858
Home Telephone Number: Area Code/No.
Work Telephone Number: Area Code/No. 252/ 328-6444 *Ext:*
E-mail Address: bradshawl@ecu.edu
Fax: Area Code/No. /

RESEARCH OVERVIEW

Participants	*Sample Size*	*Description (Schools, Grades, Demographics)*	*Time Required*	*Data Required (From Participants or WCPSS Records)*
Students	*0*			
Staff @WCPSS	*200*	*Teachers that attended the Teacher Leadership cohort and the teammates and principals of the teachers*	*10 minute survey*	*Survey results and EOG data from teams and schools of participants*
Parents	*0*			
Others	*0*			

COMMENTS:

1. *Ultimate Purpose of Study (Thesis, Publication in Journal):*
   Dissertation

2. *Describe how this study will contribute to the Wake County Public School System*
   The study will be able to review the effectiveness of the Teacher Leadership Cohort towards acquisition of leadership skills and alignment to Teacher Evaluation system. Also, to review if increased leadership skills impact student achievement on teams.

3. *Description of anticipated contribution to theory or field:*
   This study will contribute by adding to the research base on the impact of teacher leadership and may guide WCPSS towards creating professional development opportunities for teacher leaders aligned to the new evaluation instrument.

4. *Hypotheses of the study:*

5. *Brief summary of research design including statistical analysis procedures:*

6. *State whether this is a single study, or one of a series planned or contemplated.*
   Single Study

7. *Describe how the equipment or procedures to be used might constitute a potential emotional or physical hazard to subjects.*
   N/A

8. *List at least three prominent research studies, articles, or books most pertinent to the field of this research:*

9. *List equipment and names of tests to be used. (Attach descriptions or copies of test instruments.)*
   EOG and EOC, survey created by me

10. *Facilities needed:*
    None

11. *Source of research funds:* *Doctoral candidate (if any)*

Assurances:

As the applicant of the research project, I understand that I am requesting assistance in a research project and that I am not requesting information pursuant to Open Records legislation. If my request for research assistance is granted, I agree to abide by all policies, rules, and regulations of the district INCLUDING THE SECURING OF WRITTEN PARENT PERMISSION PRIOR TO IMPLEMENTATION OF MY PROJECT.

As the sponsor for the research project, I have read the procedures for External Research in the Wake County Public School System (WCPSS) and understand that supervision of this project and responsibility for a report on its outcome rests with me. The privilege of conducting future studies in Wake County Public School System is conditioned upon the fulfillment of such obligations.

Applicant Signature: _____ Date:_____
(Required)

Sponsor Signature: _____ Date:_____
(When applicable)

Submit an electronic copy of this form to Evaluation and Research Department at:

eandr@wcpss.net

APPENDIX L: INSTITUTIONAL REVIEW BOARD APPROVAL LETTER

EAST CAROLINA UNIVERSITY
University & Medical Center Institutional Review Board Office
IL 09 Brody Medical Sciences Building• 600 Moye Boulevard • Greenville, NC 27834
Office 252-744-2914 • Fax 252-744-2284 • www.ecu.edu/irb

TO: James Lee Argeat, 6412 Ridgemount St., Wake Forest, NC 27587

FROM: UMCIRB

DATE: February 10, 2011

RE: Expedited Category Research Study

TITLE: "The Impact of a Teacher Leadership Program on the Perception of Leadership Skills"

UMCIRB #11-055

This research study has undergone review and approval using expedited review on 2.3.11. This research study is eligible for review under an expedited category number 7. The Chairperson (or designee) deemed this **unfunded** study no **more than minimal risk** requiring a continuing review in **12 months.** Changes to this approved research may not be initiated without UMCIRB review except when necessary to eliminate an apparent immediate hazard to the participant. All **unanticipated problems involving risks to participants and others must be promptly reported to the UMCIRB. The** investigator must submit a continuing review/closure application to the UMCIRB prior to the date of study expiration. The investigator must adhere to all reporting requirements for this study.

The above referenced research study has **been given** approval for the period of **2.3.11** to **2.2.12.** The approval includes the following items:

- Internal Processing Form (dated 11.18.10)
- Survey (received 1.21.11)
- Informed Consent: Principals of Institute for Teacher Leaders Participants (dated 1.10.11)
- Informed Consent: Institute for Teacher Leaders Participants (dated 1.10.11)
- Informed Consent: Teammates of Institute for Teacher Leaders Participants (dated 1.10.11)

The Chairperson (or designee) does not have a potential for conflict of interest on this study.

The UMCIRB applies 45 CFR 46, Subparts A-D, to all research reviewed by the UMCIRB regardless of the funding source. 21 CFR 50 and 21 CFR 56 are applied to all research studies under the Food and Drug Administration regulation. The UMCIRB follows applicable International Conference on Harmonization Good Clinical Practice guidelines.