

EXPLORING CHARACTERISTICS OF PUBLIC SCHOOL FACILITIES AND
RESOURCES AND THE RELATIONSHIP WITH TEACHER RETENTION

A Dissertation
by
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ABSTRACT

EXPLORING CHARACTERISTICS OF PUBLIC SCHOOL FACILITIES AND
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School districts are having problems staffing classrooms with teachers. The problem is not just in hiring new teachers; the challenge is the attrition of both new and experienced teachers. Research establishes the importance of addressing school conditions to improve teacher retention. The purpose of this study was to examine how the eight items within the public school Facilities and Resources domain of the 2008 North Carolina Teachers Working Conditions survey predict teachers' stated intentions to return to the same assignment in North Carolina. The survey items were divided into three clusters: technology, facilities, and instructional materials.

This correlational, predictive research study explored data collected within the public school Facilities and Resources domain of the 2008 North Carolina Teacher Working Conditions Survey. Over 104,000 licensed educators representing 87% of North

Carolina's public schools and every district in the state of North Carolina responded to the survey. A discriminant function analysis was conducted to predict teachers' stated intentions to return to the same assignment in North Carolina or to change positions. For this study, Group 1 consisted of participants who planned to continue teaching at their current school, which was referred to as the "stay" group. Group 2 was made up of the participants who planned to change teaching positions within their current district or state, which was referred to as the "change" group. The valid number of cases for this study was 71,813, which was 68.7% of total cases.

Technology, facilities, and instructional materials were selected as the independent variables. The dependent variable in this study is the teachers' stated intentions to return to the same assignment. First, a Wilks' lambda test was performed to test if the discriminant model as a whole was significant. Second, once the Wilks' lambda test showed significance, then the individual independent variables were assessed to see which differ significantly in mean by group and these were used to classify the dependent variable.

This study found that teachers want to work in a school environment that is safe and has sufficient access to appropriate instructional materials and resources to teach effectively. The study also found that the survey respondents in the "stay" group, which are the teachers that did not plan to leave their current assignment (Group 1), were classified with better accuracy (96.6%) and were more positive about their work environment. The results of this study confirm a relationship between teachers' stated intentions to stay in their current assignment, the condition of school facilities, and the availability of resources in public schools in North Carolina. Implications for policy and practice are presented along with suggestions for further research.

DEDICATION

This dissertation is dedicated to my mother, Betty Brendle, who encouraged me to continue my education; my supportive husband, Brian Corum, who has been with me every step of the way; and to my playful son, Corbin Corum, who joined our family during my doctoral journey.

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Without a doubt, I must acknowledge my immediate family who has been encouraging and supportive throughout this entire process. Thank you to my husband, Brian, for being flexible with family affairs and making sacrifices so that I could attend classes and work on my writing. This journey would not have been possible without his support.

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CHAPTER 1

INTRODUCTION

School districts across the United States are having difficulties staffing classrooms with teachers (Ingersoll, 2001). School administrators and education researchers are realizing the problem is not just in hiring new teachers; the challenge is the attrition of both new and experienced teachers (Buckley, Schneider, & Shang, 2004; Hirsch, Emerick, & Southeast Center for Teaching Quality, 2007). Poor teacher retention is considered a major contributor to severe teacher shortages (Berry, Smylie, & Fuller, 2008). It is not uncommon for more than 20% of teachers in many schools to consistently leave to teach elsewhere or quit the profession annually (Ezring, Gibson, Loney, & Elder, 2007; Hirsch, Emerick, & Southeast Center for Teaching Quality, 2007; Southeast Center for Teaching Quality, n.d.). Unfortunately, this is a trend in education with mass numbers of teachers leaving each school year (Darling-Hammond, 2003; Johnson & National Education Association, 2006; Tye & O'Brien, 2002).

Within five years of being hired, approximately one-third of new teachers leave the profession (Darling-Hammond, 2003). In addition to losing newer teachers, “Over 50 percent of the nation’s teachers and principals are Baby Boomers. During the next four years we could lose a third of our most accomplished educators to retirement” (National Commission on Teaching and America’s Future, 2009, p. 2).

National research indicates the significance of addressing school conditions to improve teacher retention (Southeast Center for Teaching Quality, n.d.). Teachers who leave their teaching assignment cite opportunities for a better teaching assignment, dissatisfaction with administrative support, and dissatisfaction with workplace conditions as the main reasons they seek additional employment (Berry, Smylie, & Fuller, 2008). “Researchers have long documented how school administrators affect the conditions under which teachers teach, and how a principal’s leadership style, communication skills, and supportive behaviors influence teacher recruitment and retention” (Berry, Smylie & Fuller, 2008, p. 13). School leaders have an impact on teacher job satisfaction; therefore, school administrators influence teacher recruitment and retention. However, there is little research on school facility quality and how it affects teacher retention decisions (Buckley, Schneider, & Shang, 2004). “Our nation’s school facilities are a critical part of the educational process” (Schneider & National Clearinghouse for Educational Facilities, 2003, p. 4).

In many schools in the United States, teachers and students are working and attending school in a physical environment that adversely affects their morale (Frazier & ERIC Clearinghouse on Educational Management, 1993). School systems often have to delay construction of new schools and postpone repairs to existing buildings due to financial austerity. “The needs of school building construction and repair present us with a tremendous challenge” (Uline & Tschannen-Moran, 2008, p.1). The cuts to facility and building maintenance appear to be less devastating to stakeholders than eliminating academic programs (Frazier & ERIC Clearinghouse on Educational Management, 1993). Budget shortfalls may force school administrators to delay or cancel construction and renovation projects (Kennedy, 2010). However, the condition of school facilities in the United States is

rapidly deteriorating due to the financial decisions of school systems (Frazier & ERIC Clearinghouse on Educational Management, 1993). Since the downturn in the economy in 2008, school construction plans have slowed for some schools and universities (Kennedy, 2010). “At the K-12 level, 2009 saw fewer of the huge bond referendums that have appeared on ballots in recent years” (Kennedy, 2010, p.19). Teachers want to work in quality facilities and have access to appropriate and needed materials and resources (Buckley, Schneider, & Shang, 2005; Earthman, 2002; Schneider & National Clearinghouse for Educational Facilities, 2003). An important factor in the employment decisions made by individual teachers is the quality of school facilities (Buckley, Schneider, & Shang, 2004). Poor school conditions increase the likelihood that teachers will leave that school and even the teaching profession (Schneider & National Clearinghouse for Educational Facilities, 2003).

Recruiting and retaining teachers in North Carolina is a current and serious issue for districts across the state. Many school systems are struggling to hire qualified teachers. “Retirement, increases in student population, efforts to reduce class size, competition with higher-paying private sector positions, and working conditions have created a demand for teachers that far exceeds the supply” (North Carolina State Board of Education, 2005, p. 2). In March of 2003, North Carolina lost 7,000 teachers who did not return for the 2003-2004 school year. An additional 3,000 teachers did not finish teaching the same school year for a total of 10,000 teachers leaving the profession within one year. The 2005-2006 state average district-level teacher turnover rate was 12.58%. This turnover increased to 13.85% for the 2007-2008 school year (New Teacher Center, n.d.a).

United States political leaders are taking action to address teacher turnover. On February 24, 2009, United States Representative David Price (D-NC) re-introduced legislation to address the retention of qualified public school teachers. *The Keep Teachers Teaching Act* (2009), Price's Bill, would provide federal grants to develop innovative teacher retention programs. One such example is the Kenan Fellows Program administered by North Carolina State University. Kenan Fellows, who are public school teachers, partner with scientists and university faculty for two years while developing math, science and technology curricula for use in classrooms throughout North Carolina. Representative Price referred to this program as a model that is already working and could be expanded to other states. *The Keep Teachers Teaching Act* could help schools cope with the pressures of recruiting enough teachers to fill the demand of the coming years by providing federal grants directly to states or school districts to create their own teacher retention program.

“Teacher retention is just as important a goal---and perhaps a more difficult challenge---as teacher recruitment” (Price, 2009, p. 1). According to a brief on teacher retention in North Carolina prepared for the Hunt Institute by the Southeast Center for Teaching Quality, “Many schools in the state lose at least one-third of teachers in a given year [and] most of the teachers are new teachers” (Southeast Center for Teaching Quality, 2004, p.1). After the first year of teaching, nearly 20% of teachers do not return to teaching. More than 60% of teachers leave the profession after their fifth year of teaching.

In 2005, North Carolina's State Board of Education created a task force to examine teacher retention. The task force used eight guiding principles to make recommendations which were:

1. Quality teachers are essential to high student achievement.
2. Improving Teacher Recruitment and Retention efforts by only increasing salary will not resolve state and local school districts' teacher shortages.
3. Teachers must have working conditions that allow them to do their jobs.
4. Beginning teachers must have an effective induction program.
5. Teachers must be appropriately compensated for their knowledge, skills, and performance.
6. Administrative support of teachers and for the teaching/learning process is essential.
7. The image of the teaching profession must be enhanced.
8. Facilities must be designed, well-maintained, and utilized to support instruction.

While all eight guiding principles were used by the Task Force to make recommendations for teacher retention, this study focused on the following two guiding principles: teachers must have working conditions that allow them to do their jobs, and facilities must be designed, well-maintained, and utilized to support instruction (North Carolina State Board of Education, 2005). Trained and licensed teachers must staff our schools if North Carolina is to meet the students' educational needs. In order to attract quality educators, the State and local communities "must address issues of teacher working conditions, salary and benefits, recruitment, preparation, induction, and professional development and advancement" (North Carolina State Board of Education, 2005, p. 3).

Mike Easley, former governor of North Carolina, established a system for formal reporting of teacher working conditions, making North Carolina the first state in the nation to survey those whose opinion matters most on the issue—teachers themselves (Southeast

Center for Teaching Quality, n.d.). The governor surveyed teachers in an effort to improve teaching and learning in North Carolina (Berry, Smylie, & Fuller, 2008). The North Carolina Teachers Working Conditions Initiative began in 2002 with a voluntary 39-question instrument. The survey was developed to assess whether or not the state working conditions standards, developed by the North Carolina Professional Teaching Standards Commission, were being met. The survey was administered online again in 2004 after it was redesigned and again in 2006 (Hirsch, Emerick, & Southeast Center for Teaching Quality, 2007). The biennial survey measures five teacher working conditions- time, professional development, leadership, empowerment, and facilities and resources.

The latest survey was completed with 104,249 educators responding to the 2008 Teacher Working Conditions Survey (87%), the highest proportion since the advent of the survey in 2002 (Hirsch & Church, 2009a). One hundred percent of all traditional schools and school districts in the state of North Carolina met the minimum response rate of 40% to have the data validated during the 2008 administration of the survey.

Administrators and policy makers should use the results of the biennial survey to improve working conditions of teachers (North Carolina State Board of Education, 2005). If school districts and building administrators understand how educators perceive the working conditions in their schools, then they can make adjustments to improve teachers' job satisfaction and teacher retention.

Statement of the Problem

Schools are forced to devote attention, time, and financial resources to attracting replacement teachers (Schneider & National Clearinghouse for Educational Facilities, 2003). "Turnover comes at great expense, both in the negative cumulative effect on student

achievement and as a financial drain to the state and districts that repeatedly prepare, recruit and support teachers for the same position” (Hirsch, Emerick, & Southeast Center for Teaching Quality, 2007, p. 1). Employees’ work conditions partially determine their job satisfaction and productivity for virtually any business or organization, and schools are no different (Hirsch, Emerick, & Southeast Center for Teaching Quality, 2007). Data from the 2006 North Carolina Teacher Working Conditions Survey indicate that improving conditions in the five domains- time, professional development, leadership, empowerment, and facilities and resources- will improve student learning conditions and help retain teachers (Hirsch, Emerick, & Southeast Center for Teaching Quality, 2007). Poor teacher retention is causing a severe teacher shortage. Research establishes the importance of addressing school conditions to improve teacher retention (Berry, Smylie, & Fuller, 2008).

Purpose of the Study

The purpose of this study was to examine how the eight items within the public school Facilities and Resources domain of the 2008 North Carolina Teachers Working Conditions survey predict teachers’ stated intentions to return to the same assignment in North Carolina. The survey items were divided into three clusters: technology, facilities, and instructional materials. The following four research questions guided the study:

1. Does the technology cluster predict teachers’ stated intentions to return to the same assignment?
2. Does the facilities cluster predict teachers’ stated intentions to return to the same assignment?
3. Does the instructional materials cluster predict teachers’ stated intentions to return to the same assignment?

4. What combinations of the three clusters best predict teachers' stated intentions to return to the same assignment?

The eight items on the survey were divided into three clusters: Technology, Facilities, and Instructional Materials. The survey items were divided as follows:

Technology:
1. Teachers have sufficient access to instructional technology, including computers, printers, software and internet access.
2. Teachers have sufficient access to communications technology, including phones, faxes, email and network drives.
3. The reliability and speed of Internet connections in this school are sufficient to support instructional practices.

Facilities:
1. Teachers have adequate professional space to work productively.
2. Teachers and staff work in a school environment that is clean and well-maintained.
3. Teachers and staff work in a school environment that is safe.

Instructional Materials:
1. Teachers have sufficient access to appropriate instructional materials and resources.
2. Teachers have sufficient access to office equipment and supplies such as copy machines, paper, pens, etc.

Significance of the Study

Over the last several years, a great deal of information about teacher working conditions has been uncovered for policymakers and practitioners to consider; but more needs to be done (Berry, Smylie, & Fuller, 2008). Research has been conducted to help determine the relationship between public school facilities and teacher job satisfaction (Schneider & National Clearinghouse for Educational Facilities, 2003; Stallings, 2008). Stallings (2008) conducted a study to explore the difference between teachers who plan to stay in current positions and those who plan to leave in terms of their perceptions of the

conditions of public school facilities and the availability of resources. In the Stallings study the eight items within the public school Facilities and Resources domain of the 2006 North Carolina Teachers Working Conditions survey were condensed into one variable. The present study would retain the power and detail of Stallings' results by separating the dimensions of the Facilities and Resources domain into two groups- those that have an effect and those that do not. The design of the present study included three independent variables, which are technology, facilities, and instructional materials. Since three independent variables were used to attempt to predict one dependent variable, teachers' stated intentions to return to the same assignment, a discriminant function analysis was used to predict group membership. Using this approach allows for more specific analysis and conclusions about which items impact teacher retention.

Teacher working conditions matter. It is important for districts to consider and respond to data from those whose perceptions matter most: the classroom teachers who are thoroughly aware of the achievements and areas of concerns in their own schools (Hirsch, Emerick, & Southeast Center for Teaching Quality, 2007). School systems and boards of education could use the information from this study when designing new school buildings and renovating existing structures. Central office personnel and school-based administrators could use the information to gain a better understanding of why teachers leave their assignments, and school leaders could identify and address some of the issues within the school building and possibly retain teachers. School systems could save money by reducing the cost of recruiting and training new personnel each school year when teacher retention rates increase. "The North Carolina Teacher Working Conditions Survey continues to provide educators, stakeholders, policymakers and the community with this critical

understanding of the status of working conditions in schools across North Carolina” (Hirsch, Emerick, & Southeast Center for Teaching Quality, 2007, p. 2). Previous reports on the 2008 Teacher Working Conditions Survey present findings on all five domains and offer conclusions on student achievement and teacher retention (Hirsch & Church, n.d.). This study looked only at the Facilities and Resources Domain and offers findings on each item from the survey in comparison to teachers’ answers about their employment intentions. Overall, this study could determine the items in the Facilities and Resources Domain that influence teacher retention and help schools retain qualified teachers.

Assumptions

Data for this study were collected through a cross-sectional survey administered in the spring of 2008.

1. An assumption of this study was that participants answered the items accurately in terms of teacher responsiveness. While all teachers that were employed during the administration time-frame of this survey were invited, encouraged, and had the opportunity to participate in the survey, not all teachers responded to the survey since it was voluntary. Additionally, this study collected data during one administration of the survey from one state and may not be generalizable to other unique and individual situations.
2. The 2008 North Carolina Teacher Working Conditions Survey contained five domains of items: Time, Facilities and Resources, Educator Leadership, School Leadership, and Professional Development. This study analyzed the Facilities and Resources domain to garner information about the relationship of public school facilities and resources and teachers’ stated intentions to return to the same

- assignment in North Carolina. The survey instrument contained eight items in this domain which were divided into three clusters: technology, facilities, and instructional materials. The survey items were pertaining to access to technology (including communications technology and instructional technology), public school facilities (adequate professional work space, the cleanliness and maintenance of the facility, and issues of safety), and instructional materials (access to instructional materials and resources, and access to office equipment). The availability of resources and materials is an essential component when addressing a positive work and learning environment (Stallings, 2008). In the area of school facilities, a more inclusive list of items would provide greater information about the relationship to school facilities and teachers' stated intentions to return to the same assignment. A limitation of this study is the minimal number of items in the Facilities and Resources domain on the survey instrument that is administered to public school educators.
3. Findings noted in the review of the literature suggest that comfort factors, lighting, regular maintenance, the quality of the air flow and temperature control are important factors in a school environment (Earthman, 2004; Schneider & National Clearinghouse for Educational Facilities, 2002). Teacher perceptions of their work environment are gathered on the North Carolina Teacher Working Conditions Survey; however, it "does not obtain information related to specific qualities such as the age of the facilities, the quality of air flow and temperature control, acoustics, lighting, cleanliness and maintenance, technology, and issues of safety" (Stallings, 2008, p. 111). The survey could be enhanced if verbal or written discussions were included regarding these specific qualities of the teaching environment.

4. Researchers have documented various factors that play a part in teacher retention (Berry, Smylie, & Fuller, 2008; Buckley, Schneider, & Shang, 2004; Hirsch, Emerick, & Southeast Center for Teaching Quality, 2007). In some cases, teachers may want to change schools to be closer to their home or they are moving. “Administrators have little control when teachers leave because of retirement, family responsibilities, or health issues” (Improving Teacher Retention, 2007). While these personal reasons are important retention factors, this study is not looking at these items. In addition, there are professional factors such as salary and local supplements, poor administrative support, crime statistics and student behavior that impact teacher retention (Buckley, Schneider, & Shang, 2004; Buckley, Schneider, & Shang, 2005; Hall, Pearson, & Carroll, 1992). “Job dissatisfaction, primarily due to poor salary, poor administrative support and student discipline problems, is also among the most frequent reasons teachers give for leaving the profession” (Buckley, Schneider, & Shang, 2004, p.1). Once again, these are noteworthy aspects that can make a difference with teacher retention, but this study was only looking at the public school facilities and resources and teachers’ stated intentions to return to the same assignment.

Definition of Terms

Assignment- In this study *assignment* refers to the teachers staying in their current position within the same school.

Facilities- For purposes of this study *facilities* includes items related to professional space to work productively and school environments that are clean, well-maintained, and safe.

Instructional Materials- This term was used in the current study to represent teachers having access to office equipment and supplies such as copy machines, paper, pens and appropriate instructional materials and resources.

North Carolina Teacher Working Conditions Survey- State-level survey instrument developed to gather and analyze information about teachers' perceptions of working conditions in North Carolina schools. The survey is administered every two years and has five categories — time, facilities and resources, empowerment, leadership, and professional development.

Public school facility- This study used Berube's (1982) definition of a public school facility: "an elementary or secondary school supported by public funds and providing free education for children of a community or district" (p. 1,001). The structure that houses the school is the public school facility.

Teacher retention- For purposes of this study *teacher retention* refers to teachers staying at their current teaching assignment.

Technology- This research study grouped instructional technology, computers, printers, software, and internet access; communications technology, which is comprised of phones, faxes, email and network drives; and the reliability and speed of Internet connections in the schools.

Summary

This chapter introduced a study of the relationship between public school facilities and teachers' stated intentions of returning to the same assignment as reported by the findings of the 2008 North Carolina Teacher Working Conditions Survey (Hirsch, Emerick, & Southeast Center for Teaching Quality, 2007). Chapter 2 presents a review of the literature

and research for this study. Chapter 3 explains the research methods, information on participants, data collection, and the research design. Chapter 4 summarizes the findings of the study and conclusions and recommendations will be discussed in chapter 5.

CHAPTER 2

REVIEW OF THE LITERATURE

This chapter provides an overview of existing literature and research on public school facilities and resources and teacher retention. The literature review is broken down into three parts with a section for each of the independent variables used in this study: technology, facilities and instructional materials. This study is guided by the unique combination of variables as they relate to teachers' stated intentions to return to the same assignment in North Carolina. Implications for this study and a theoretical framework are presented.

“Across the nation, schools, districts and states struggle with the dilemma of recruiting and retaining quality teachers” (Hirsch, 2006, p.1). Organizations such as New Teacher Center and Center for Teaching Quality are working with states across the nation to learn more about teacher retention. The Center for Teaching Quality, originally known as The Southeast Center for Teaching Quality, changed its name in 2005 when the need for national data and assistance became prominent. The organization is the same, but has a new and broader focus. The current initiatives of the Center for Teaching Quality are teacher leadership, research and policy in an effort to close the student achievement gap by closing the teaching quality gap (Center for Teaching Quality, 2008). One such way of closing the teacher quality gap is by learning about teacher working conditions through formal state – wide surveys (Hirsch, 2006). “A growing body of research clearly demonstrates that assessing, understanding, and improving such conditions can have many benefits: from

strengthening school leadership to fostering a collaborative working environment” (Hirsch, Sioberg, & Germuth, 2009). The New Teacher Center has vast experience conducting surveys across the country. In 2008-2009, The New Teacher Center clients were: Alabama, Colorado, Fairfax County (VA), Illinois, Kansas, Maine, Maryland, Massachusetts, North Carolina, Vermont, and West Virginia (New Teacher Center, n.d.). The state of Kentucky recently signed up as a client to conduct research for their own state. The Teaching and Learning Conditions Survey was pioneered in North Carolina in 2002 and has now been replicated across the nation (New Teacher Center, n.d.). “In North Carolina, policy and practice are at an historical intersection drawing upon the voices of educators as an integral component of policy design through a statewide, voluntary, survey of teacher working conditions administered biennially” (Maddock, 2009, p.1).

Recruiting and retaining teachers has become a challenge for educational leaders across the state of North Carolina (Hirsch et al., 2007). There is a reduced pool of candidates for teacher positions for various reasons: retirement, competition with higher-paying private sector positions, working conditions, increases in student population and efforts to reduce class size (North Carolina State Board of Education, 2005). Retirement accounts for why some teachers leave the profession, but almost one-third of teachers only work for five years or less after being hired (Price, 2009; Southeast Center for Teaching Quality, 2004). Nearly 80% of first-year teachers return to teach a second year. Fewer than 40% of teachers remain in the profession after their fifth year of teaching (Southeast Center for Teaching Quality, 2004). The state average district-level teacher turnover rate for the 2005-2006 school year was 12.58% (Hirsch, Emerick, & Southeast Center for Teaching Quality, 2007). For the 2007-2008 school year, the statewide system level teacher turnover was 13.85% (New

Teacher Center, n.d.a). With so many teachers leaving the field there are less qualified applicants for the available teaching positions. On average, North Carolina hires approximately 10,000 new teachers annually (North Carolina State Board of Education, 2005). The colleges and universities in North Carolina produce approximately 3,000 new teachers each year, with about two-thirds of these graduates beginning their teaching career within one year of graduating. The remainder of the new teachers come to North Carolina from other states or enters the profession through alternate routes (North Carolina State Board of Education, 2005). School systems must determine why teachers are leaving and find ways to address the reasons to keep experienced teachers in the classroom.

Hall, Pearson, and Carroll (1992) surveyed teachers who were contemplating quitting the teaching profession along with teachers who planned to continue in their chosen career. The participants were K-12 public school teachers from a large, urban district in Florida. The 6,400 teachers in the district were stratified by school, and about 12% proportional random sample was drawn from each school. The response rate was 54% ($N=416$ cases). Forty-five of the total cases were excluded from the study because they indicated they planned to retire. Two additional cases were excluded because they were outliers, leaving 369 cases for the study. Sixty percent of the cases were randomly selected ($n=189$) for the analysis, and the remaining cases were used for cross-validation. Of the 189 cases selected for the analysis, 148 teachers (78%) indicated they were planning to continue teaching. The remaining 41 teachers (22%) indicated they were leaving the profession. The survey consisted of four sections: rate the importance of 10 different reasons for explaining why teachers leave their jobs, conditions in the teachers' work environment, teachers' perceptions of their classroom autonomy, and attitudes towards teaching as a career. The results of this study suggest that

the two groups of teachers can be distinguished by the pattern of work-related attitudes and perceptions that they express. Teachers who planned to leave the profession expressed less satisfaction with their current employment and salary and had a more negative attitude toward teaching as a career and administrators at the school level (Hall, Pearson, & Carroll, 1992).

Supportive working conditions can enhance teacher quality and improve retention (Berry, Smylie & Fuller, 2008). “As found in previous surveys and corroborated by other research, the presence of working conditions is strongly connected to the future employment plans of North Carolina teachers and actual attrition” (Hirsch & Church, 2009a, p. 2). Teachers in North Carolina schools with the lowest turnover rates state there is an atmosphere of trust and effective school leadership in their buildings (Hirsch & Church, 2009a). “Researchers have long documented how school administrators affect the conditions under which teachers teach, and how a principal’s leadership style, communication skills, and supportive behaviors influence teacher recruitment and retention” (Berry, Smylie & Fuller, 2008, p.13). Teachers want to work with administrators and colleagues who are supportive (Berry, Smylie & Fuller, 2008; Hirsch, Emerick, & Southeast Center for Teaching Quality, 2007). Teachers also indicate that they like to have input on school decisions through the School Improvement Team (Hirsch & Church, 2009b). Berry, Smylie & Fuller (2008) have come to understand that the working conditions that matter for teacher retention transcend typical issues. “Factors such as time, leadership, professional development, access to resources, and teacher empowerment all exert a significant influence on the degree of satisfaction teachers feel in their jobs” (Improving Teacher Retention, 2007, p.1). It is

essential for schools to have positive working conditions to retain teachers (Berry, Smylie & Fuller, 2008; *Improving Teacher Retention*, 2007).

Teacher retention is often related to school facilities and the resources within the building. Buckley, Schneider and Shang (2004) found the benefits of facility improvement for retention to be equal to or greater than those from pay increases. Additional benefits of facilities improvement include: the building lasting for multiple years, a one-time expense, and supplemental funding from the state or federal level. Pay increases must be budgeted yearly. A major facilities improvement could be a more cost-effective teacher retention strategy than a permanent salary increase for teachers.

Former Governor Easley realized the importance of retaining teachers and created an initiative to address teachers' perceptions of their working conditions (Southeast Center for Teaching Quality, n.d.). One avenue of discovering how teachers feel about the building in which they work is through a formal, state-wide survey. Since 2002, the Governor, along with the North Carolina Professional Teaching Standards Commission, has been asking licensed educators in the state about the teaching and learning conditions in their schools as a way to gather more information about working conditions. The purpose of this study is to examine how the eight items within the public school Facilities and Resources domain of the 2008 North Carolina Teachers Working Conditions survey predict teachers' stated intentions to return to the same assignment in North Carolina. The data collected from this study falls into three categories: technology, facilities, and instructional materials. This chapter presents a synthesis of related research in each category.

Overview of Related Literature

Technology

Our nation's school buildings are aging (Lewis et al., 2000). Fifty percent of these buildings are at least thirty years old and another 21% are more than fifty years old (Uline & Tschannen-Moran, 2008). In 2000, a total of \$127 billion dollars in new construction and retro-fitting was required for these schools (Lewis et al., 2000). A National Education Association (NEA) study (2000), estimated the cost at \$268 billion to modernize America's schools. When the technology needs of \$52 billion were added, the total swelled to \$322 billion (NEA, 2000). Teachers need services "such as accessible laminating machines, dependable photocopy machines, good computers and reliable connections to the Internet" (Johnson & National Education Association, 2006, p. 11) within the school facility to instruct students properly.

Kadel (2007) proposed a definition of a technology supportive environment (TSE) as the first step to discovering the relationship between technology and teacher retention.

Kadel's definition includes administrators doing the following:

- Providing preservice support to college and university students by informing them about what they need to know about technology
- Modeling a positive technology attitude with colleagues
- Offering professional development that is focused and intensive with ongoing training
- Supporting use of new technology initiatives
- Encouraging school personnel to utilize technology
- Participating in determining technology solutions that are individualized for schools

Kadel (2007) recommends creating a survey to learn more about the technology supportive environment and what effect technology has on teacher retention. “The bottom line is, it is possible to measure a TSE and it is possible to uncover whether (or to what degree) a TSE has an effect on teacher retention” (2007, p. 28). This suggested survey needs to be created so that it can be administered.

Hall (2000) suggests five ways schools and districts can implement technology to help retain teachers. First, technology training helps teachers feel more comfortable in their work environment. Technology can augment student learning, which can lead to successful students. “Successful students lead to more satisfied teachers” (2000, p. 33). Second, use the teacher that is frustrated with technology to mentor the remaining teachers. “Lack of access, training and familiarity are the most often cited as reasons for teacher frustration with technology” (2000, p. 33). Administrators could provide training and tools to help ease the technology frustration, and then encourage the teacher to mentor his/her colleagues. Mentoring will make the teacher more confident in and satisfied with the work environment. This system will also speed adoption of new technologies in the school by having positive role models. Third, schools and districts should use the Internet for teacher recruitment. Fourth, schools should augment curricula and classroom experiences with web-based resources, which often improves classroom perceptions of students and teachers. Finally, Hall (2000) contends that the school with the “most toys” wins. The toys, known as technology gadgets, can create a more positive working environment, “even when below-market salaries and other conditions in the school and community may add elements of stress, confusion or personal danger” (Hall, 2000, p, 33).

Facilities

There are studies that examine the relationship between building conditions and student achievement (Berner, 1993; Buckley, Schneider, & Shang, 2004; McGuffey, 1982). Cash (1993) found that comfort factors in the school building design appeared to have more of an effect on student achievement than structural factors. The comfort factors included schools that were located in less noisy locations, were air conditioned, had less graffiti, and classroom furniture and student lockers in good repair. Schneider & National Clearinghouse for Educational Facilities (2002) found the quality of school buildings is also related to student behavior, absenteeism, violence, smoking, vandalism, and suspensions. Temperature within the school building, heating and air quality are rated by Earthman (2004) as the more important individual elements affecting student achievement. Lighting within the school is another factor that impacts student learning (Earthman, 2004; Heschong Mahone Group, 1999). Thus, building conditions are important factors in a school environment (Earthman, 2004; Schneider & National Clearinghouse for Educational Facilities, 2002).

Students are not the only individuals affected by poor quality buildings. Teacher behaviors and attitudes have also been linked to the quality of school facilities (Uline & Tschannen-Moran, 2008). A myriad of factors affect teacher retention, but most teachers work in a specific physical facility (the school building) and the quality of that building has an impact on teacher morale, the ability of teachers to teach, and the health and safety of teachers (Buckley, Schneider, & Shang, 2004). Unfortunately, we should expect school facilities problems to worsen since school buildings in the United States, on average, are over forty-years-old, just the time when rapid deterioration typically begins (2004).

Individual teachers make decisions about their future employment based on the quality of school facilities. Buckley, Schneider, and Shang (2004) surveyed 835 teachers in Washington, DC in the spring of 2002. The results of the study found that the quality of school facilities is an important predictor of the retention/attrition decision of teachers, even when controlling for a host of other factors. The researchers were primarily interested in the conditions of the school facility and asked the teachers to rate the school facility with the familiar school grading scale of A, B, C, D and F. The teachers also indicated whether they planned to remain another year in their current school. The researchers found that as the perceived quality of the school facilities improved, the probability of teacher retention increased. While this comparison was based on the change of a school's facility quality from F to A, there was also a relationship in perceived quality from F to C. Basically, the effect of a facility's quality on teacher retention is substantively significant (Buckley, Schneider, & Shang, 2004).

Many factors contribute to the quality of the school building and, in turn, affect teacher working conditions and student achievement. In the Buckley, Schneider, and Shang (2004) study, two-thirds of the teachers reported poor indoor air quality in their school. Poor indoor air quality within a building is also known as "sick building syndrome". Student absenteeism increases and student performance is reduced in these buildings (Leach, 1997). The health of teachers is also impacted because of the poor conditions of schools (Buckley, Schneider, & Shang, 2004), and teachers could lose considerable class time instructing the students they are appointed to teach. It is unreasonable to expect positive results from students, teachers, and principals when they work daily in an adverse environment (Frazier & ERIC Clearinghouse on Educational Management, 1993).

Thermal comfort within a building is another area in which research has linked school facilities to teacher performance. Lackney (1999) showed that teaching quality and student achievement is linked to teachers' beliefs about thermal comfort. Lowe (1990) found that the recipients of the State Teachers of the Year awards, typically regarded as the best teachers, emphasized their ability to control classroom temperature as central to the performance of both teachers and students.

Lighting in the classroom impacts student performance. Jago and Tanner (1999) cite results of seventeen studies from 1931-1997. These studies suggest that appropriate lighting plays a significant role in the achievement of students, improves test scores, and reduces off-task behavior. It is interesting to note that in the Buckley, Schneider, and Shang (2004) study in Washington, DC over 21% of the teachers reported that the lighting in their building was inadequate and over 20% of the teachers could not see through the windows in their classroom. Lighting is an important factor for student achievement; teacher morale could be impacted by the lack of lighting in the school facility (Heschong Mahone Group, 1999). Poor school facilities make it difficult for teachers to instruct their students, and increase the probability that teachers will leave their school and the teaching profession (Schneider & National Clearinghouse for Educational Facilities, 2003).

Instructional Materials

The amount and quality of instructional supplies available to teachers affect teachers' perceptions of their working environment (Improving Teacher Retention, 2007). Hoff (2001) reported that less than half of teachers surveyed for *Quality Counts* stated they had plenty of access to instructional materials and resource guides or textbooks. Teachers expect schools to supply the resources needed to teach the curriculum; including basic materials such as paper,

crayons, pencils, and textbooks for each student (Johnson & National Education Association, 2006). By the end of the first week of school in Philadelphia schools, two-thirds of new teachers had not received the district's curriculum guide of what they were required to teach (Neild, Useem, Travers, & Lesnick, 2003). Kauffman, Johnson, Kardos, Liu, and Peske (2002) conducted a study of new Massachusetts teachers and revealed that a majority of the teachers did not have a curriculum guide or only had a list of general topics to teach. The teachers who did have classroom textbooks often reported that the books did not cover the content on the curriculum framework (2002). When classroom resources do not align with the state standards, teachers spend excessive amounts of time and money developing their own resource materials from scratch (Kauffman et al., 2002). Teachers who plan for multiple subjects or grades without the needed resources may be driven out of the field of teaching (Johnson & National Education Association, 2006).

Kaufhold, Alvarez, and Arnold (2006) surveyed 750 special education teachers from 48 South Texas schools of Region II. The participants worked with students ranging in age from three to twenty-two years. A total of 228 teachers (31%) responded to the Likert scale survey. Of the teachers responding, 50% indicated that they "strongly agreed" that they lacked the needed supplies to teach their students. An additional 40% "agreed" that they did not have sufficient resources and materials for their classroom. An overwhelming 90% of the respondents felt like they needed access to more materials and instructional resources, and not a single teacher stated that they had adequate supplies (2006). Several teachers indicated a high degree of frustration and burnout due to the lack of sufficient supplies in the classroom and having to spend personal money for needed materials (2006). Kaufhold, Alvarez, and Arnold (2006) urged "administrators to channel allotted funds to these teachers and to ensure

that they have the necessary resources and administrative support in order to perform their duties” (p. 161).

Several qualitative studies of teachers’ work environments document stories of schools and classrooms that do not have the needed supplies for good teaching (Buchanan, 2009; Corcoran, Walker & White, 1988; Johnson, 1990). New teachers regularly spend their own money and numerous hours outside the school day creating or locating materials (Improving Teacher Retention, 2007) just to survive in their chosen profession. Teachers share experiences of stringent quotas on paper, limited and antiquated audiovisual materials, and out-of-date textbooks (Corcoran, 1988; Johnson, et al. 1990). Teachers feel compelled to spend their own money if they are to succeed, or at least function, in the classroom by purchasing groceries for in-class cooking projects, stickers for rewards, posters to decorate the classroom, materials for science projects and paperback books to promote reading (Johnson & National Education Association, 2006).

The lack of resources in a school contributes to teacher job dissatisfaction and attrition (Berry, Smylie & Fuller, 2008; Buckley, Schneider, & Shang, 2004). School leaders must consider what instructional materials are needed to effectively teach the standards and take steps to provide the resources (Improving Teacher Retention, 2007).

Implications for this Study and Theoretical Framework

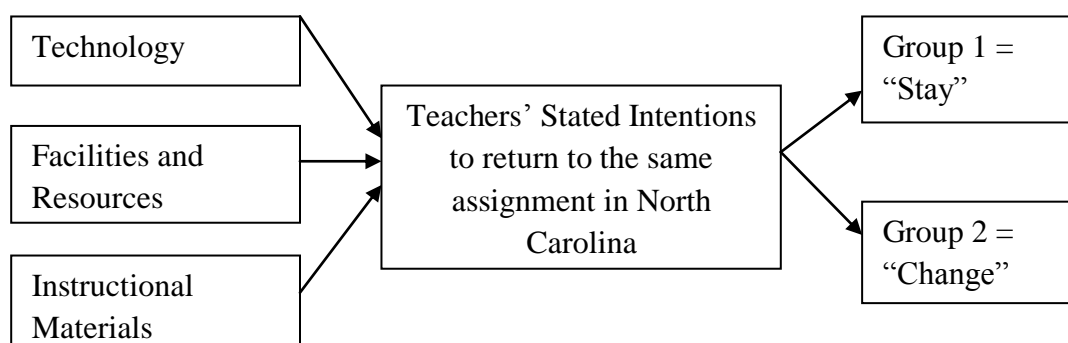
The literature linking school facilities and resources to teacher retention decisions is growing. Stallings (2008) conducted a study to explore the difference between teachers who plan to stay in current positions and those who plan to leave in terms of their perceptions of the conditions of public school facilities and the availability of resources. Stallings’ quantitative study used data from the 2006 North Carolina Teacher Working Conditions

Survey, with over 64,000 teachers responding. The teachers' responses to items in the Facilities and Resources domain were compared to responses to additional items regarding the aspect of the work environment that most influenced their job satisfaction and future professional plans. The respondents were then divided into two groups: those wishing to stay in their current school (stayers) and those wishing to leave (leavers). A mean satisfaction score was created for each respondent on those variables representing the conditions of public school facilities and resources. An independent samples t-test was used to explore the difference between teachers intending to stay and those intending to leave their current positions. The study suggested that work environment and availability of resources do impact job satisfaction, and may be part of the reason for teacher attrition. The results from Stallings (2008) study "did confirm that there was a relationship between teacher job satisfaction and the condition of school facilities and the availability of resources in public schools in North Carolina," (p. 110) and may be associated with teachers' decisions to remain in the profession. While Stallings study shows a link to school facilities and resources to teacher job satisfaction, "there is little research on the effects of school facility quality on teacher retention decisions" (Buckley, Schneider, & Shang, 2004), which was explored in the current study.

The Stallings' (2008) research compressed the data into one defined variable. This study replicates the concept of the Stallings' study, but retains the power and detail of the data by using a predictive model that separates the dimensions of the Facilities and Resources domain into those that have an effect and those that do not. A discriminate analysis approach provides greater detail and more specific analysis and conclusions that will contribute to the literature.

The present study utilizes a unique combination of variables including technology, facilities, and instructional materials, as they relate to teachers' stated intentions to return to the same assignment in North Carolina. Each variable was examined and analyzed and compared to the teachers' stated professional intentions in the next two years. The responses of the participants were sorted into two groups. Group 1 consisted of participants who planned to continue teaching at their current school, which was referred to as the "stay" group. Group 2 was made up of the participants who planned to change teaching positions within their current district or state, which was referred to as the "change" group. Figure 1 provides a map of the theoretical framework.

Figure 1. Theoretical Framework



Summary

A synthesis of research and literature on public school facilities and resources and teacher retention highlights a possible correlation between the two factors. The literature reviewed in the chapter describes areas of concern that can be connected to teacher retention in regard to school facilities and resources; these include technology, facilities, and instructional resources.

With growing concerns about teacher retention in North Carolina, there is a rising interest in understanding teacher working conditions (Southeast Center for Teaching Quality, n.d.). Positive working conditions are essential for schools in order to attract and retain teachers and administrators (Hirsch & Church, 2009b). Districts must assess their needs for new and upgraded facilities (Buckley, Schneider, & Shang, 2004). It is important to explore the relationship between school facilities and resources and teacher retention (Stallings, 2008). The purpose of this study was to examine how the eight items within the public school Facilities and Resources domain of the 2008 North Carolina Teachers Working Conditions survey predict teachers' stated intentions to return to the same assignment in North Carolina. The survey items were divided into three clusters: technology, facilities, and instructional materials. The study included an analysis of the eight items in the Facilities and Resources domain of the survey, along with combinations of the eight items, which predict teachers' stated intentions to return to the same assignment.

Chapter 2 provided an overview of the literature on the independent variables in this study; technology, facilities, and instructional resources. Chapter 3 will describe the methodology for the study and the 2008 North Carolina Teacher Working Conditions Survey will be discussed. Procedures for obtaining and analyzing the data will be explained. The results of the study will be included in chapter 4 and conclusions and recommendations will be explained in chapter 5.

CHAPTER 3

METHODOLOGY INTRODUCTION

Losing teachers can be costly for school districts (Southeast Center for Teaching Quality, n.d.). Lack of highly qualified teachers in the classroom can be detrimental for schools, as students are taught by fewer experienced teachers (Bozonelos, 2008). Attrition is damaging to a school district due to the cost of hiring and training new teachers as replacements (2008). Teacher behaviors and attitudes have been linked to the quality of school facilities, which in turn is associated with teacher retention (Improving Teacher Retention, 2007; Uline & Tschannen-Moran, 2008). In an effort to reduce expenses, school districts are looking at teacher working conditions (Southeast Center for Teaching Quality, n.d.). “Isn’t it possible that improving working conditions would be less expensive to school districts than the costs of losing ---and replacing---unhappy teachers” (Tye & O’Brien, 2002, p.31)? One domain of teacher working conditions that individual schools and districts can address is the public school facility. Various factors affect teacher retention, but most teachers work in a specific physical facility (the school building) and the quality of that building has an impact on the quality of teacher life and educational outcomes (Buckley, Schnider, & Shang, 2004). This chapter describes the North Carolina Teacher Working Conditions Survey design and provides an overview of the research methods used for the study. This quantitative study will use the data to evaluate the items from this survey instrument.

Research Questions

The purpose of this study is to examine if and how the eight items within the public school Facilities and Resources domain of the 2008 North Carolina Teachers Working Conditions survey predict teachers' stated intentions to return to the same assignment in North Carolina. The responses will be divided into three clusters: technology, facilities, and instructional materials. The division of the survey items will be as follows:

Technology:
1. Teachers have sufficient access to instructional technology, including computers, printers, software and internet access.
2. Teachers have sufficient access to communications technology, including phones, faxes, email and network drives.
3. The reliability and speed of Internet connections in this school are sufficient to support instructional practices.
Facilities:
1. Teachers have adequate professional space to work productively.
2. Teachers and staff work in a school environment that is clean and well-maintained.
3. Teachers and staff work in a school environment that is safe.
Instructional Materials:
1. Teachers have sufficient access to appropriate instructional materials and resources.
2. Teachers have sufficient access to office equipment and supplies such as copy machines, paper, pens, etc.

This study is guided by the following four research questions:

1. Does the technology cluster predict teachers' stated intentions to return to the same assignment?
2. Does the facilities cluster predict teachers' stated intentions to return to the same assignment?
3. Does the instructional materials cluster predict teachers' stated intentions to return to the same assignment?
4. What combinations of the three clusters best predict teachers' stated intentions to return to the same assignment?

Research Design

This quantitative, correlational, predictive research study used data collected within the public school Facilities and Resources domain of the 2008 North Carolina Teacher Working Conditions Survey as part of Governor Easley's initiative to learn about teacher working conditions. The design of this study allowed the researcher "to measure the degree of association between two or more variables using the statistical procedure of correlational analysis" (Creswell, 2008, p. 60). There are three independent variables for this study, which are the three clusters previously mentioned: technology, facilities, and instructional materials. Since three independent variables, a priori, were used to attempt to predict one dependent variable, teachers' stated intentions to return to the same assignment, a discriminant function analysis was used to predict group membership (Garson, 1998). The

participants' responses were sorted into two groups. Group 1 consisted of participants who planned to continue teaching at their current school, which was referred to as the "stay" group. Group 2 was made up of the participants who planned to change teaching positions within their current district or state, which was referred to as the "change" group.

Discriminant function analysis will produce "a model that allows prediction of group membership when only the interval variables are known" (Stockburger, 1997, p. 1). This study analyzed the data from the Facilities and Resources domain of the survey to determine which of the three clusters and combinations of clusters predict teachers' stated intentions to return to the same assignment.

Rationale for the Design

A survey design provides a quantitative description of attitudes and opinions of a population by studying a sample of that population (Creswell, 2008). This study analyzed, among other things, teachers' opinions about facilities and resources and how they predict the teachers' decisions to leave the profession or to change schools. Technology, facilities, and instructional materials were selected as the independent variables in this study. The dependent variable in this study was the teachers' stated intentions to return to the same assignment, which was measured by responses on the survey to the question about teachers' plans regarding their future employment. A cross-sectional survey, with the data collected at one time (Creswell, 2008), was administered via the Internet to teachers in North Carolina in spring of 2008. Since the survey was administered statewide, it was more economical to do so online and easier for teachers to complete and return. The data for this particular study were analyzed by a discriminant function analysis, which is a multivariate statistical method

that assists with predicting group memberships. Discriminant function analysis is a “conceptually and mathematically powerful multivariate method” (Buyukozturk, & Cokluk-Bokeoglu, 2008, p.73).

Data Source

The North Carolina Teachers Working Conditions Survey was first administered in 2002, as one of Governor Easley’s initiatives to address teachers’ perceptions of their working conditions. The initial survey was an expansion of the North Carolina Professional Teaching Standards Commission pilot project in 2001, commonly referred to as the Commission. The Commission developed 30 working conditions standards for schools in five categories through research and focus groups. More than 500 teachers and focus groups validated the standards. A survey was developed by the Commission based on the 30 standards and then was administered as a pilot study in the fall of 2001 to 2,300 teachers and administrators in 60 schools throughout the North Carolina. Governor Easley expanded the initiative based on the results of the pilot study. In partnership with the Commission, assistance from the North Carolina Association of Educators (NCAE), and support and funding from BellSouth-NC, the first official voluntary survey was sent out in May of 2002 to every licensed public school-based educator in North Carolina (North Carolina Professional Teaching Standards Commission, n.d.; Southeast Center for Teaching Quality, n.d.).

The survey was administered again in both 2004 and 2006 with minor changes each time. The fourth iteration of the survey was administered March 17 - April 21, 2008, and is scheduled to be given biannually. For the first time in 2008, principals had additional items to answer. These items were developed by administrators and key education groups from

across the state (North Carolina Professional Teaching Standards Commission, n.d.). The 2008 survey has 39 statements and items about working conditions in five domains: time, facilities and resources, educator leadership, school leadership, and professional development. The response range is a Likert scale of 1 (“Strongly Disagree”), 2 (“Somewhat Disagree”), 3 (“Neither Disagree or Agree”), 4 (“Somewhat Agree”) to 5 (“Strongly Agree”). “Likert scale items [can] surface more precise descriptions” (Berry, Smylie, & Fuller, 2008, p. 28). All statements were written to indicate a positive description of the school environment; therefore, higher scores always indicate a more positive opinion of the school environment (North Carolina Professional Teaching Standards Commission, n.d.).

Analyses were performed measuring the reliability of the Teacher Working Conditions Survey “for measuring the presence of various components of teaching conditions. Reliability was assessed for subscales within the survey on the five identified factors of the survey” (New Teacher Center & the North Carolina Professional Teaching Standards Commission, n.d.b, p. 4). The range for the alpha coefficient ranges from 0 to 1 with higher coefficients signifying higher levels of instrument consistency (Fraenkel & Wallen, 1990). All five domains of the survey were found to be reliable with alphas above 0.8. The Facilities and Resources domain had a high level of reliability at 0.852 (New Teacher Center & the North Carolina Professional Teaching Standards Commission, n.d.b).

With 87% of educators responding to the 2008 survey, every district in the state of North Carolina was represented. For an individual school to have its data validated, at least 40% of its staff had to respond to the survey. The same was required for a Local Education Association (LEA) to be validated. Validated participation ranged from 40% to 100% at the school level. The 2008 North Carolina Teacher Working Conditions Survey for all five

domains is presented in Appendix A. Following are the eight items in the Facilities and Resources domain on the 2008 survey.

1. Teachers have sufficient access to appropriate instructional materials and resources.
2. Teachers have sufficient access to instructional technology, including computers, printers, software, and internet access.
3. Teachers have sufficient access to communication technology, including phones, faxes, e-mail, and network drives.
4. Teachers have sufficient access to office equipment and supplies such as copy machines, paper, pens, etc.
5. The reliability and speed of Internet connections in the school are sufficient to support instructional practices.
6. Teachers have adequate professional space to work productively.
7. Teachers and staff work in a school environment that is clean and well maintained.
8. Teachers and staff work in a school environment that is safe.

Three additional sets of items complete the survey. The survey included two sets of demographic items with nine questions total. An additional section obtained information about overall conditions. Teachers and principals were able to rank the importance of the five domains and state their employment intentions. The final section included items for mentees and mentors to respond about their experiences over the past year. The mentee section included nine items and the mentor portion had six items. For this research study, only the professional intention question was analyzed from the additional items.

Role of the Researcher and Ethical Considerations

As a former assistant principal in North Carolina public schools, the researcher understands the hiring process and how difficult it can be to find a qualified teacher for the classroom. During the time the data were collected on the 2008 Teacher Working Conditions survey, the researcher was a graduate student on maternity leave from the public school system. The researcher did not participate in the survey; therefore, her opinions were not expressed or documented in the data. The researcher tried to be impartial, but that may have been impossible since the researcher has worked in public schools and has been affected by school facilities in previous employment decisions.

Data Collection Procedures

Data regarding the 2008 North Carolina Teacher Working Conditions Survey was retrieved from LEARN NC. LEARN NC is a program of the University of North Carolina at Chapel Hill School of Education which provides all educators, parents, and interested persons free quality resources and professional development that are tied to the North Carolina Standard Course of Study (LEARN NC, 2009). After gaining approval from the Institutional Review Board (IRB) at Appalachian State University, the data were retrieved. Documentation supporting approval from the IRB is provided in Appendix B.

Participant Selection

Teachers who completed the 2008 North Carolina Teacher Working Conditions Survey were the participants for this study. The online survey was administered March 17-April 21, 2008. The fourth iteration of the North Carolina Teacher Working Conditions Survey was administered to over 104,000 (87%) licensed educators (North Carolina Teacher Working Conditions Initiative, 2008). As in the 2004 and 2006 online surveys that were

administered for the state of North Carolina, the participants were given anonymous access codes to complete the survey from any Internet location and assure anonymity (North Carolina Teacher Working Conditions Initiative, 2008). All codes were mailed to the North Carolina Association of Educators (NCAE) association representative at each school. No teacher names or identifying data were recorded, maintaining teacher confidentiality throughout data collection and analysis, and in the report of findings.

Data Analysis

This study used a predictive model that separated the dimensions of the Facilities and Resources domain into those that have an effect and those that do not (Stockburger, 1997). A discriminate function analysis approach gives great detail and provides for specific analysis and conclusions that will contribute to the literature on teacher retention (Garson, 1998). Discriminant function analysis has two steps. First, a Wilks' lambda test was performed to test if the discriminant model as a whole was significant. Second, if the Wilks' lambda test showed significance, then the individual independent variables were assessed to see which differ significantly in mean by group and these were used to classify the dependent variable (Garson, 1998). The analysis tool for this test was Statistical Package for the Social Sciences 17 (SPSS).

Trustworthiness

Data collected for this study were gathered through a cross-sectional survey administered in the spring of 2008 (Hirsch & Church, 2009b). This study assumed the data gathered to be accurate in terms of teacher responsiveness. All teachers who were employed during the administration time-frame of this survey were invited, encouraged, and had the opportunity to participate in the survey; however, the survey was voluntary and not all

teachers responded. Teacher anonymity was maintained since anonymous access codes allowed the teachers to submit their opinions through the Internet. In addition, no identifying names or data were recorded.

Summary

This chapter described the research procedures and methods used in this study. The chapter included the research questions and design, along with the procedures used for data collection and analysis. Chapter 4 reports the results of the data analysis including descriptive statistics. Chapter 5 includes conclusions and recommendations.

CHAPTER 4

FINDINGS

The purpose of this study was to examine how the eight items within the public school Facilities and Resources domain of the 2008 North Carolina Teachers Working Conditions survey predict teachers' stated intentions to return to the same assignment in North Carolina. The survey items were divided into three clusters: technology, facilities, and instructional materials. The following four research questions guided the study:

1. Does the technology cluster predict teachers' stated intention to return to the same assignment?
2. Does the facilities cluster predict teachers' stated intention to return to the same assignment?
3. Does the instructional materials cluster predict teachers' stated intention to return to the same assignment?
4. What combinations of the three clusters best predict teachers' stated intentions to return to the same assignment?

The descriptive statistics and findings are presented in this chapter based on the collected data. The statistical analyses were conducted using SPSS Version 17.

Descriptive Statistics

In the spring of 2008, a survey was administered to teachers across the state of North Carolina about their working conditions. The total number of respondents to the survey was 104,607. This study looked at the responses of the eight items from the Facilities and Resources domain which were divided into three clusters. The predictor variables were technology, facilities and instructional materials. A discriminant function analysis was conducted to predict teachers' stated intentions to return to the same assignment in North Carolina or to change positions. For this study, Group 1 consisted of the participants who planned to continue teaching at their current school, which was referred to as the "stay" group. Group 2 was made up of the participants who planned to change teaching positions within their current district or state, which was referred to as the "change" group. This study was not looking at teachers who left teaching; therefore, all the remaining responses were omitted since they asked about why a teacher was planning on leaving the teaching profession. The valid number of cases for this study was 71,813, which was 68.7% of total cases. Table 1 presents the dissection of the sample based on responses to the dependent variable.

Table 1. Dissection of the Sample, $n=71,813$

Group	N	Percent
Group 1: Teaching at Current School	55,124	77%
Group 2: Change Teaching Positions	16,689	23%

The Facilities and Resources domain portion of the survey instrument consisted of eight items. The eight items were divided into three clusters: technology, facilities, and instructional resources. Participants responded to each of the eight items using a Likert scale from one through five with a range of one ("Strongly Disagree"), two ("Somewhat

Disagree”), three (“Neither Disagree or Agree”), four (“Somewhat Agree”) to five (“Strongly Agree”). Table 2 presents the items and clusters that were used for this study.

Table 2. Facilities and Resources Survey Items Broken Down Into Three Clusters

Cluster	Cluster Abbreviation	Survey Items
Technology	TQ	<ol style="list-style-type: none"> 1. Teachers have sufficient access to instructional technology, including computers, printers, software and internet access. (Q3.1b) 2. Teachers have sufficient access to communications technology, including phones, faxes, email, and network drives. (Q3.1c) 3. The reliability and speed of Internet connections in this school are sufficient to support instructional practices. (Q3.1e)
Facilities	FQ	<ol style="list-style-type: none"> 1. Teachers have adequate professional space to work productively. (Q3.1f) 2. Teachers and staff work in a school environment that is clean and well-maintained. (Q3.1g) 3. Teachers and staff work in a school environment that is safe. (Q3.1h)
Instructional Materials	IMQ	<ol style="list-style-type: none"> 1. Teachers have sufficient access to appropriate instructional materials and resources. (Q3.1a) 2. Teachers have sufficient access to office equipment and supplies such as copy machines, paper, pens, etc. (Q3.1d)

Note. The parenthesis at the end of each item is the actual item number from the survey instrument located in Appendix A.

The Teacher Working Conditions survey was administered to all licensed public school educators in the state of North Carolina in the spring of 2008, and the Facilities and Resources domain of the survey was the part analyzed for this study. The responses of the participants were sorted into two groups. Group 1 was the participants who planned to continue teaching at their current school, which will be referred to as the “stay” group. Group 2 was the participants who planned to change teaching positions within their current district or state, which will be referred to as the “change” group. Table 3 lists the statistics associated with the instrument administered.

Table 3. Statistics of Facilities and Resources Items

Group	Survey Items	Mean	Standard Deviation
1.00 “Stay”	TQ1	3.98	1.197
	TQ2	4.09	1.118
	TQ3	4.07	1.116
	FQ1	3.91	1.191
	FQ2	4.08	1.140
	FQ3	4.32	0.944
	IMQ1	3.98	1.108
	IMQ2	3.95	1.195
2.00 “Change”	TQ1	3.58	1.336
	TQ2	3.71	1.273
	TQ3	3.82	1.215
	FQ1	3.54	1.298
	FQ2	3.66	1.301
	FQ3	3.78	1.208
	IMQ1	3.48	1.278
	IMQ2	3.46	1.348
Total	TQ1	3.89	1.242
	TQ2	4.00	1.167
	TQ3	4.01	1.144
	FQ1	3.83	1.227
	FQ2	3.98	1.192
	FQ3	4.19	1.037
	IMQ1	3.86	1.168
	IMQ2	3.83	1.249

Table 3 indicates that the participants in the “stay” group responded more favorably to all eight survey items than the “change” group. The means of the “stay” group responses on the survey ranged from 3.91 to 4.32; whereas, the “change” group means were from 3.46 to 3.82. The mean of all eight variables for the “stay” group were higher than those of the “change” group and the standard deviations of all eight variables were less for the “stay” group than the “change” group. These results suggest that all three clusters may be good discriminators as separations exist for all eight items on the survey. Table 4 provides statistical evidence of significant differences with all eight items. The results are shown at $p < .000$ in Table 4.

Table 4. Tests of Equality of Group Means

	Wilks' Lambda	F	df1	df2	Sig.
TQ1	.982	1329.909	1	71811	.000
TQ2	.981	1387.035	1	71811	.000
TQ3	.992	610.122	1	71811	.000
FQ1	.984	1203.471	1	71811	.000
FQ2	.979	1569.249	1	71811	.000
FQ3	.951	3728.765	1	71811	.000
IMQ1	.968	2375.506	1	71811	.000
IMQ2	.973	2024.645	1	71811	.000

Table 5 reveals that six variables are in the most significant prediction function. The order in which predictor variables were included indicates the relative strength of the relationship between the predictor variable and the dependent variable. FQ3, which is “Teachers and staff work in a school environment that is safe”, was the strongest predictor at .951. The next important predictor at .940 was IMQ1, which is “Teachers have sufficient access to appropriate instructional materials and resources”. The four remaining variables in order of prediction were “Teachers have sufficient access to office equipment and supplies such as copy machines, paper, pens, etc.” (IMQ2), “The reliability and speed of the Internet connections in this school are sufficient to support instructional practices” (TQ3, note – negative sign), “Teachers have sufficient access to communications technology, including phones, faxes, email and network drives” (TQ2), and “Teachers and staff work in a school environment that is clean and well-maintained” (FQ2). All four of these variables showed a prediction at .937.

Two of the variables (TQ1 and FQ1) were excluded as predictors because they did not help to improve the discriminant function’s ability to predict the dependent variable. These items were, “Teachers have sufficient access to instructional technology, including

computers, printers, software and internet access” (TQ1) and “Teachers have adequate professional space to work productively” (FQ1).

Table 5. Variables Entered/Removed

Step	Entered	Statistic	df1	Wilks' Lambda	
				df2	df3
1	FQ3	.951	1	1	71811.000
2	IMQ1	.940	2	1	71811.000
3	IMQ2	.937	3	1	71811.000
4	TQ3	.937	4	1	71811.000
5	TQ2	.937	5	1	71811.000
6	FQ2	.937	6	1	71811.000

Note. At each step, the variable that minimizes the overall Wilks' lambda is entered.

The coefficients in Table 6 below represent the actual coefficients that would be used in the prediction equation for the discriminant function. Table 6 provides an index of the importance of each predictor. The sign indicates the direction of the relationship. Positive values indicate that higher levels of agreement and negative values indicate that higher levels of disagreement better predict the outcome of the dependent variable. When a participant responded with a five in this study, they were “Strongly Agreeing” to the question. When the participant responded with a one they were “Strongly Disagreeing” with the question. Five of the six variables that were in the most significant prediction function were all positive showing that the participants “Somewhat Agree” or “Strongly Agree”. The one variable (TQ3) that showed a higher level of disagreement, represented by the negative sign, was the question “The reliability and speed of the Internet connections in this school are sufficient to support instructional practices”. The participants in this survey answered more with “Somewhat Disagree” or “Strongly Disagree” to this question.

Table 6. Standardized Canonical Discriminant Function Coefficients

	Function
	1
TQ2	.062
TQ3	-.102
FQ2	.041
FQ3	.652
IM1	.339
IM2	.266

Note. Pooled within-in groups correlations between discriminating variables and standardized canonical discriminant functions. Variables ordered by absolute size of correlation within function.

The Eigenvalue (.068) shows that the discriminate function explains a relatively small part of the variation on the dependent variable. The actual variation explained is about 6.3% ((Canonical Correlation = .252) squared).

Table 7. Eigenvalues

Function	Eigenvalue	% of Variance	Cumulative %	Canonical Correlation
1	.068 ^a	100.0	100.0	.252

a. First 1 canonical discriminant functions were used in the analysis

Wilks' lambda indicates the significance of the discriminant function. Table 8 indicates a highly significant function ($p < .000$) and provides the proportion of total variability not explained. The Wilks' lambda is .937 which is the within group variance divided by total variance. So, about 93.7% of the total variance is explained by random factors within the groups of the dependent variable; however, the test for Wilks' lambda is very significant which means the model can accurately explain the remaining part of the variance.

Table 8. Wilks' Lambda

Test of Function(s)	Wilks' Lambda	Chi-square	df	Sig.
1	.937	4699.289	8	.000

The classification results (Table 9) reveal that 76.6% of respondents would have been classified correctly into “stay” or “change” groups. The “stay” group was classified with better accuracy (96.6%) than the “change” group (10.4%). As can be seen, this percentage rate for correct placement for the “stay” group is better than that which would have been achieved by random placement (50%).

Table 9. Classification Results for Group Membership of “Stayers” and “Changers”

		Stay or Change	Predicted Group Membership		Total
			Stay (Group 1)	Change (Group 2)	
Original	Count	Stay (Group 1)	53258	1866	55124
		Change (Group 2)	14945	1744	16689
		Ungrouped Cases	26980	1616	28596
	%	Stay (Group 1)	96.6	3.4	100.0
		Change (Group 2)	89.6	10.4	100.0
		Ungrouped Cases	94.3	5.7	100.0

a. 76.6% of original grouped cases correctly classified.

Summary

The descriptive statistics of the sample were presented in chapter 4. Six of the eight variables were included in the most significant prediction function. The variable with the strongest prediction (.951) was “Teachers and staff work in a school environment that is safe”, (FQ3). The second most important predictor (.940) was “Teachers have sufficient access to appropriate instructional materials and resources”, (IMQ1). This study also found that the respondents to the survey in the “stay” group, who are the teachers who did not plan to leave their current assignment (Group 1), were classified with better accuracy (96.6%) and were more positive about their work environment. Chapter 5 includes a summary of the findings, conclusions, and recommendations for future research.

CHAPTER 5

FINDINGS, CONCLUSIONS AND RECOMMENDATIONS

Staffing classrooms with teachers is an issue school districts are facing in the United States (Ingersoll, 2001). “National research demonstrates the importance of addressing school conditions to improve teacher retention” (Berry, Smylie, & Fuller, 2008, p. 5). This chapter reviews the findings of the current study, presents the conclusions, and makes recommendations for further research.

Summary of Findings

The purpose of this study was to explore how the eight items within the public school Facilities and Resources domain of the 2008 North Carolina Teachers Working Conditions survey predict teachers’ stated intentions to remain in their present work setting. The survey items were divided into three clusters: technology, facilities, and instructional materials, which were the independent variables in this study. A discriminant function analysis was conducted to predict teachers’ stated intentions to return to the same assignment in North Carolina or to change positions, which was the dependent variable.

The data set included 104,607 participants. This study only analyzed the teachers who planned to continue teaching at their current school or change teaching positions within their current district or state; therefore, the teachers who left the profession were omitted from the study. This left a sample of 71,813, which was 68.7% of total cases. The responses were

divided into two groups for this study. Group 1 ($n=55,124$) consisted of the participants who planned to continue teaching at their current school and was considered the “stay” group. Group 2 ($n=16,689$) was the participants who planned to change teaching positions within their district or state and was referred to as the “change” group.

The eight question survey instrument used in this study was divided into three clusters: technology, facilities, and instructional materials. Both the technology and facilities clusters contained three items and the instructional materials cluster had two items. A five-point Likert scale was used as the measurement tool for the survey, with one representing “Strongly Disagree,” two representing “Somewhat Disagree,” three representing “Neither Disagree or Agree,” four representing “Somewhat Agree,” and five representing “Strongly Agree.”

The descriptive statistics associated with the survey instrument indicated that the “stay” group responded more favorably to all eight survey items than the “change” group. The mean of all eight variables were higher for the “stay” group (3.91-4.32) than the “change” group (3.46-3.82) and standard deviations of all eight variables were less for the “stay” group than the “change” group. The statistics of the facilities and resources items results suggest that these three clusters may be good discriminators as separations exist for all eight items. Statistical evidence of significant differences with all eight items is shown at $p < .000$.

The following sections will explain the research findings based on the first three research questions: 1) Does the technology cluster predict teachers’ stated intentions to return to the same assignment?; 2) Does the facilities cluster predict teacher’ stated intentions to return to the same assignment?; and 3) Does the instructional materials cluster predict

teachers' stated intentions to return to the same assignment? Findings related to question four - What combinations of the three clusters best predict teachers' stated intentions to return to the same assignment? – will be integrated into each of the three sections.

Question One: Technology

The results of this study reveal that six variables were in the most significant prediction function (Table 5). Out of the three items in the technology cluster, one of the variables (TQ1) was excluded as a predictor because it did not help to predict the dependent variable. This question was “Teachers have sufficient access to instructional technology, including computers, printers, software and internet access.”

The remaining two items in this cluster were ranked as fourth, “The reliability and speed of Internet connections in this school are sufficient to support instructional practices” (TQ3) and fifth, “Teachers have sufficient access to communications technology, including phones, faxes, email, and network drives” (TQ2) out of the six variables in the prediction function. These two variables showed a Wilks' lambda at .937. While these two variables were part of the prediction function, they were not considered as the most important predictors since variables three, four, five and six showed the same Wilks' lambda at .937 and could not be differentiated in importance.

It is essential to note that all the variables in the prediction equation for the discriminant function were positive showing that the participants “Somewhat Agree” or “Strongly Agree” except for one variable (TQ3), “The reliability and speed of Internet connections in this school are sufficient to support instructional practices, which is in this cluster. This variable showed a higher level of disagreement by the participants who answered more with “Somewhat Disagree” or “Strongly Disagree” to this question.

The results of this study support the findings by Johnson and National Education Association (2006) that teachers need reliable connections to the Internet to instruct students properly. “A facility that is identified as a 21st century learning environment contains the infrastructure and resources that highlight the commitment to the infusion of technology” (Stallings, 2008, p. 103). While the question about “The reliability and speed of Internet connections in this school are sufficient to support instructional practices” was not one of the top two most significant predictor variables, it was still included in the most significant prediction function and should be considered when addressing teacher retention and workplace conditions.

As a whole, the technology cluster indicated that technology within a school building does not play an important role in teachers’ stated intentions of returning to the same assignment. However, “facilities are needed that encompass state-of-the-art technology and learning environments that entice teaching and learning” (Stallings, 2008, p. 114).

Question Two: Facilities

The facilities cluster, comprised of three items, included the most significant prediction function variable (FQ3) at a Wilks’ lambda of .951, which was “Teachers and staff work in a school environment that is safe.” One of the variables was excluded as a predictor from this cluster (FQ1) because it did not help predict the dependent variable. This question was “Teachers have adequate professional space to work productively.” The remaining question (FQ2) in this cluster, “Teachers and staff work in a school environment that is clean and well-maintained” was ranked sixth out of six variables in the most significant prediction

function at a Wilks' lambda of .937. Just like the two variables in the technology cluster, this variable was part of the prediction function, but could not be considered as an important predictor since it had the same prediction as variables three, four and five. However, this cluster did have the highest ranked variable in the most significant prediction function and should be considered by school leaders when making plans to help with teacher retention.

The results of this study support findings by Johnson and National Education Association (2006) who found that maintenance and functionality are what matter most in a school. Is it clean or dirty? Are the walls pleasingly painted or scratched and peeling? Do the restroom facilities work properly or are in need of repair?

Buckley, Schneider, and Shang (2004) concluded that facility quality is an important predictor of teachers' decisions to leave their current position after surveying 835 K-12 teachers in Washington, D.C. The researchers found that as the perceived quality of the school facilities improved, the probability of teacher retention increased. "In short, the effect of facilities quality on retention is substantively significant" (Buckley, Schneider, & Shang, 2004, p. 6). Schools and school districts attempting to increase their rate of teacher retention have several possible strategies. One strategy according to Buckley, Schneider, and Shang (2004) is a major facilities improvement. While the cost could be significant, it is a one-time expense that will last for many years and could be supplemented by state or federal funding. The condition and upkeep of our school facilities must be addressed in the ongoing discourse about student achievement and teacher retention (Schneider & National Clearinghouse for Educational Facilities, 2003).

Question Three: Instructional Materials

The instructional materials cluster included the second most significant prediction function variable (IMQ1) at a Wilks' lambda of .940, which was "Teachers have sufficient access to appropriate instructional materials and resources." The remaining question in this cluster was ranked third in the prediction function at a Wilks' lambda of .937, the same as variables four, five and six. The question was "Teachers have sufficient access to office equipment and supplies such as copy machines, paper, pens, etc" (IMQ2). As stated before, this variable could not be considered as an important predictor even though it was part of the prediction function.

According to the results of this study, the item of teachers who have sufficient access to appropriate instructional materials and resources is the second most significant prediction function variable. This is congruent with a study conducted by Kaufhold, Alvarez, and Arnold (2006). In Kaufhold, Alvarez, and Arnold's study in 2006, 50% of the teachers "reported that they 'strongly agreed' that they lacked sufficient school supplies, materials and resources in order to do their jobs properly" (p.160). In addition, 40% of the respondents "agreed" that they lacked sufficient school supplies, materials and resources. An overwhelming 90% of the participants claimed to lack the materials needed to instruct their students properly. In a study conducted by Buckley, Schneider, and Shang (2004), teachers reported that they did not have enough textbooks for their classroom and were forced to photocopy materials. Frequently the school copy machines were broken and the teachers had to rely on family, friends, or personal resources to reproduce the materials.

A number of studies found that teachers need adequate resources and materials to provide an effective learning environment (Berry, Smylie, & Fuller, 2008; Bozonelos, 2008; Johnson & National Education Association, 2006; Stallings, 2008). “Conversely, lack of resources contributes to teachers’ job dissatisfaction and attrition” (Berry, Smylie, & Fuller, 2008, p.11). School leaders should be certain that appropriate resources and materials are available to teachers so that they can adequately teach students. When teachers lack adequate materials or support to successfully implement a standards-based curriculum, they end up making the materials and operating in “survival mode” (Improving Teacher Retention, 2007). As districts and schools adopt instructional approaches, leaders must consider what supplies and materials teachers will need and take steps to provide those resources. If financial resources are not available, schools could apply for community grants or seek funding through the parent teacher association as a way to gain additional funds and instructional materials for teachers to use in their instruction. Administrators may want to create a plan to inform teachers of the location of instructional resources, which could potentially influence overall school climate in positive ways as well as help retention efforts (Bozonelos, 2008).

The classification results for group membership of “stayers” and “changers” disclose that 76.6% of original grouped cases correctly classified. The “stay” group was classified with better accuracy (96.6%) than the “change” group (10.4%). While the data source for this study did not lend itself to the exploration of cause and effect relationships, the results did confirm that there was a relationship between teachers’ stated intentions to stay in their current assignment and the condition of school facilities and the availability of resources in public schools in North Carolina. It is important for school administrators to deal with teacher shortages in education by using retention strategies (Bozonelos, 2008).

Implications for Practice and Policy

The teacher retention literature is growing on teacher working conditions (Berry, Smylie, & Fuller, 2008). While research has been conducted to help determine the relationship between public school facilities and teacher job satisfaction (Stallings, 2008), there is a gap in the literature on what specific facilities and resources impact teacher retention. Stallings' study explored the difference between teachers who plan to stay in current positions and those who plan to leave in terms of their perceptions of the conditions of public school facilities and the availability of resources. The eight items within the public school Facilities and Resources domain of 2006 North Carolina Teachers Working Conditions survey were condensed into one variable. The current study retained the power and detail of Stallings' results by separating the dimensions of the Facilities and Resources domain into two groups- those that have an effect and those that do not. Policymakers and practitioners can understand more in depth which specific items on the survey have more of an impact on teacher retention since this approach allows for more specific analysis and conclusions.

Teacher turnover and retention should be sources of immense concern to educational administrators, policy makers and teacher-preparation institutions (Hall, Pearson, & Carroll, 1992). "A wide variety of education researchers and economists agree that teachers make the most important in-school difference for student achievement" (Berry, Smylie, & Fuller, 2008, p. 4). The teaching profession represents 4% of the entire civilian workforce; there are five times as many teachers as either lawyers or professors and over twice as many K-12 teachers as registered nurses (Ingersoll, 2001). "While existing national data on teacher turnover is helpful, for schools and communities to effectively address the specific working

condition concerns of their unique teaching corps, they need data from their own schools and communities to effectively inform local reform strategies” (Southeast Center for Teaching Quality, n.d., p.1). This study could help educational administrators in North Carolina make the case for more funding, better facilities, and redirect resource allocations to directly impact teacher retention.

State-level Implications

School facilities are a significant part of the educational process. “Poor school conditions make it more difficult for teachers to deliver an adequate education to their students, adversely affect teachers’ health, and increase the likelihood that teachers will leave their school and the teaching profession” (Schneider & National Clearinghouse for Educational Facilities, 2003, p.4). Teacher turnover causes a financial drain to the state and districts that repeatedly recruit, prepare, and support teachers for the same position (Hirsch, Emerick, & Southeast Center for Teaching Quality, 2007). A report on teacher retention prepared by the Southeast Center for Teaching Quality (2004), reports the average cost for losing a teacher is \$11,500. The 2007-2008 state average district-level teacher turnover rate was 13.85% (New Teacher Center, n.d.a), which reveals that 13,432 of the 96,966 teachers employed during the 2007-2008 school year left their systems (Public Schools of North Carolina, 2008). That would equate to over \$154 million spent replacing these teachers. “High attrition means that schools must take funds urgently needed for school improvements and spend them instead in a manner that produces little long-term payoff” (Darling-Hammond, 2003, p. 8).

In this study, 6.3% of the actual variation on the dependent variable, teachers’ stated intentions to return to the same assignment, was explained with the discriminate function.

While this was a small part of the variation, this could have a huge impact at the state level when you consider impacting 6.3% of the 13.85% of the state teacher turnover rate. This could produce a significant cost savings for school districts replacing teachers each year.

There is no doubt that teacher attrition has a large economic cost. Beyond the estimated costs of replacing a teacher, there are unquantifiable costs that result from a constant revolving door of inexperienced teachers. As the quality of education decreases, the cost of remediating students increases. Taxpayers, parents, and students foot the bill for after-school programs, summer school, tutoring, and even remedial college courses for students that graduate high school but lack the skills to successfully maneuver a first year college course.

Communities and local businesses struggle as well, since a properly educated workforce is necessary for economic survival. Not only are businesses more attracted to areas with a potential pool of strong employees, communities left without business growth may struggle to provide the essential services to the constituents who remain. This puts pressure on county commissioners to adequately fund and provide incentives for recruitment and retention.

School and community leaders must learn what measures can be put in place to retain teachers. The data from this research reveal the strongest predictor in the most significant prediction function with a Wilks' lambda of .951 for this study was "Teachers and staff work in a school environment that is safe" (FQ3). Teachers want to work in a school where they feel safe whether it is a real or perceived threat. "Schools face new and unimaginable threats to their safety" (Cooper & Beatty, 2006). With the highly publicized school shootings, such as Columbine in 1999, educators' eyes are open to the possibility of violence within the

school body. Each year, schools in North Carolina individually complete a safe school plan, which consists of 15 components that are imbedded in the school improvement plan. These plans are then submitted to the district office. In most cases, once the plan is presented, it is not revisited until the following year. More needs to be done with these plans. It is painless for school improvement teams to put a check beside the safe school plan component, but it requires effort for the component to be implemented. Since teachers have viewed school violence in the news, they want their schools to take measures to keep them safe while they are at work and they need to be included in the process. North Carolina offers schools a security assessment checklist to examine security conditions. Typically, these assessments are completed by administrators or custodians in each school. Teams of school personnel, including teachers, could possibly be formed to evaluate the school. Potential security threats could be detected by those that use the building in another capacity.

District-level Implications

Safety must also be addressed at the district-level. With the strongest predictor in the most significant predication function being, “Teachers and staff work in a school environment that is safe” (FQ3), school districts must realize the connection between school safety and teacher retention.

The condition and upkeep of school facilities and resources should be addressed in the ongoing dialogue about teacher retention. Safety matters are of the most importance to a principal because of the possible harm that may come. These administrators are inclined to have the building in as safe a condition as possible (Earthman, 2004). Safety in this context also includes maintenance and functionality. For most teachers, what matters is having a well maintained and functional building (Johnson & National Education Association, 2006). Is the

school regularly repaired? Does it have broken windows? Are the floors routinely waxed or warped from a leaky roof? “From the perspective of teachers, students, and parents, a school facility that is carefully maintained signals respect for those who teach and learn there” (Johnson & National Education Association, 2006, p. 15). School leaders could create a maintenance schedule to keep school buildings in workable order and to provide a comfortable work environment. This action could show educators that they are respected by the administration and that they are a valuable part of the team.

The quality of school facilities are an important factor in the employment decisions of teachers (Buckley, Schneider, & Shang, 2004). Teachers want to work in quality facilities and have access to appropriate and needed materials and resources (Buckley, Schneider, & Shang, 2005; Earthman, 2002; Schneider & National Clearinghouse for Educational Facilities, 2003). Poor school conditions increase the likelihood that teachers will leave their assigned school and even the teaching profession (Schneider & National Clearinghouse for Educational Facilities, 2003).

How can districts retain teachers? School leaders could consider building new facilities. Since the downturn in the economy, bond referendums for the K-12 level have decreased on ballots in recent years and school construction plans have slowed for some schools and universities (Kennedy, 2010). But, with the low cost of construction, now, may be the time to build new schools. Those in charge of school systems often believe that delaying construction of new schools and postponing repairs are less devastating than eliminating academic programs (Frazier & ERIC Clearinghouse on Educational Management, 1993); however, at some point, repairs and dilapidated buildings cannot be

neglected any longer. School districts may want to work with county commissioners to design and organize a bond referendum for new school construction.

“High teacher turnover forces schools to devote attention, time, and financial resources to attracting replacement teachers” (Schneider & National Clearinghouse for Educational Facilities, 2003, p. 4). If schools could address school facility and resource needs, then the teacher turnover rate may be reduced and free up much needed assets for the school system (Johnson & National Education Association, 2006).

School-level Implications

School leaders must acknowledge that teacher working conditions matter. “Working conditions proved far more important in retaining teachers than school officials originally anticipated” (Johnson & National Education Association, 2006, p.2-3). A supportive workplace provides the curricular resources teachers need to teach the standards, (Improving Teacher Retention, 2007) and teachers in North Carolina confirmed that having the resources and materials make a difference in their retention decisions. A key result of this study, “Teachers have sufficient access to appropriate instructional materials and resources”, was the second most important predictor in the most significant prediction function with a Wilks’ lambda of .940 (IMQ1). “As instructional approaches are adopted by districts and schools, leaders must consider what new and veteran teachers will need in hand to effectively implement them and take steps to provide those resources” (Improving Teacher Retention, 2007, p. 3). Schools should have the basic resources needed to teach the standards and support good teaching (Johnson & National Education Association, 2006). It is not enough to have the resources, but teachers should know where the materials are and how to gain access to them.

This study also found that teachers felt they had enough technology resources to teach effectively, and that it did not make a difference in their retention decisions. The discriminant function excluded the variable, “Teachers have sufficient access to instructional technology, including computers, printers, software and internet access” (TQ1), because it did not help to predict the dependent variable, teachers’ stated intentions to remain in their current assignment. At first glance, it appears that technology is not an important factor in teacher retention; however, administrators could glean from this data that teachers may feel comfortable using the technology they use frequently, but may not know what all is available as instructional technology. Professional development within the school environment could be established on a regular basis so that teachers know how to implement the technology that is already available in the school building. Technology facilitators and curriculum specialists should work with individual teachers and grade levels of teachers to develop lesson plans that use the instructional technology. Once teachers become knowledgeable with and implement technology into their daily plans, they may become dependent on the instructional technology resources and it could have more of an impact on their decision to stay or leave their current teaching assignment.

The classification results from this study reveal that the participants in the “stay” group were classified with an accuracy of 96.6%. School leaders should use this data to realize that more time and attention need to be directed to the teachers who plan to stay within the same teaching assignment instead of focusing energy on teachers who plan to change teaching assignments. Those teachers who said they planned to stay with their current employment had more positive perceptions about their work environment. “The more we understand about those perceptions, their origin and impact, the better equipped we will be in

preparing teachers for a long and successful commitment to their chosen profession” (Hall, Pearson, & Carroll, 1992, p. 225).

School based administrators could have an impact on the teachers that plan to “stay” by taking time to analyze the North Carolina Teacher Working Conditions Survey results to assess the effectiveness of current policies. “To support conversations and school improvement plans around survey results, a variety of tools and guides have been developed and are accessible” (North Carolina Teacher Working Conditions Initiative, 2010, p. 1). These tools include steps to make it easier for school leaders to use the Teacher Working Conditions Survey data. Identifying policies that act as catalysts and barriers to improve working conditions based on the survey results will create a more positive work environment.

While the results from this study should be used as a foundation for reform, the data should not be considered a permanent and static descriptor of any school’s working conditions. This data collected at one point in time should be considered as a baseline tool for measuring improvements. Instead of using the data as a document of the current conditions, the information should be used as a current system blueprint to help schools take action toward improvement.

Recommendations for Future Research

This study explored the Facilities and Resources domain of the 2008 North Carolina Teachers Working Conditions survey. The same study could be replicated with multiple years of data to increase the sample size and to increase the statistical power. Data from several states and across different regions of the United States would also strengthen the result.

Additional research could include an expanded survey instrument that included further items within the Facilities and Resources domain to learn more specific information. The items could ask about the age of the building, temperature control, quality of air flow, acoustics, lighting, cleanliness and maintenance schedules. Another way to learn more about teacher working conditions is to analyze one of the other four domains (Time, Educator Leadership, School Leadership and Professional Development) on the survey instrument. This knowledge could lead to higher rates of teacher retention if it is used as a tool to learn about current teacher working conditions and not as data to blame educators about what is not currently working in the schools.

Future studies could incorporate a qualitative element to the research as well. “The North Carolina Teacher Working Conditions Survey data is a compilation of the voices of those who know schools best-the dedicated educators working in them each and every day” (Hirsch & Church, 2009a, p.4). A mixed-methods approach with qualitative inquiries such as follow-up interviews with teachers could strengthen the statistics gleaned from the quantitative survey and analysis by providing more detailed information. The researcher could ask additional questions during an interview that are not included on the survey which could offer additional and specific data.

Conclusion

As educational leaders continue to recruit and retain teachers, it will be important to understand how school facilities and resources impact a teacher’s decision to stay or leave their teaching assignment. This study found that teachers and staff want to work in a school environment that is safe and teachers want to have sufficient access to appropriate instructional materials and resources to teach effectively. This study also found that the

survey respondents in the “stay” group, which are the teachers that did not plan to leave their current assignment (Group 1), were classified with better accuracy (96.6%) and were more positive about their work environment. The data signify that school leaders should be conscious of which employees they spend a majority of their time with and concentrate on working with the employees that plan to stay in their current placement. While there are many factors that contribute to working conditions, there is evidence that teachers are more likely to remain in teaching when the facilities are safe and schools supply appropriate instructional materials and resources. The information presented in this study can offer educational leaders two strategies for improving teacher retention within the school setting.

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Appendix A: Survey Instrument

Thank you in advance for your time and willingness to share your views on working conditions in your school.

Research has demonstrated that teacher working conditions are critical to increasing student achievement and retaining teachers. North Carolina policymakers and education stakeholders have expressed great interest in using your collective responses on this survey to help improve working conditions in schools and districts across the state.

Access Code

You have been assigned an anonymous access code to ensure that we can identify the school in which you work and to ensure the survey is taken only once by each respondent. The code can only be used to identify a school, and not an individual. The effectiveness of the survey is dependent upon your honest completion.

Introduction

Please indicate your position:

- Teacher (including intervention specialist, vocational, literacy specialist, special education teacher, etc.)
- Principal
- Assistant Principal
- Other Education Professional (school counselor, school psychologist, social worker, library media specialist, etc.)

Please know that your anonymity is guaranteed.

No one in your school, the district or state will be able to view individual surveys, and reports on the results will not include data that could identify individuals. You are being asked demographic information to learn whether teachers from different backgrounds and different characteristics look at working conditions differently.

Please know that your anonymity is guaranteed.

During the survey, you will be asked some questions for principals only. In order to protect your anonymity, the data collected from principals on these items will be reported at the district level only if your district has five or more principals respond to the survey, and the principal response rate meets or exceeds forty percent for your district. No one from your school or district will be able to identify individual results or have access to the database. The effectiveness of the survey is dependent upon your honest completion.

Introduction

How many total years have you been employed as an educator?

- 1 First Year
- 2 2 - 3 Years
- 3 4 - 6 Years
- 4 7 - 10 Years
- 5 11 - 20 Years
- 6 20+ Years

How many total years have you been employed as a principal?

- 1 First Year
- 2 2 - 3 Years
- 3 4 - 6 Years
- 4 7 - 10 Years
- 5 11 - 20 Years
- 6 20+ Years

Introduction

How many total years have you been employed in the school in which you are currently working?

- 1 First Year
- 2 2 - 3 Years
- 3 4 - 6 Years
- 4 7 - 10 Years
- 5 11 - 20 Years
- 6 20+ Years

How many total years have you been a principal in the school in which you are currently working?

- 1 First Year
 2 2 - 3 Years
 3 4 - 6 Years
 4 7 - 10 Years
 5 11 - 20 Years
 6 20+ Years

Introduction

How many total years have you been a principal in the district in which you are currently working?

- 1 First Year
 2 2 - 3 Years
 3 4 - 6 Years
 4 7 - 10 Years
 5 11 - 20 Years
 6 20+ Years

Time

Please rate how strongly you agree or disagree with the following statement about the use of time in your school.

	Strongly disagree	Somewhat disagree	Neither disagree nor agree	Somewhat agree	Strongly agree
a. Teachers* have reasonable class sizes, affording them time to meet the educational needs of all students.	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	<input type="checkbox"/> 5
b. Teachers have time available to collaborate with their colleagues.	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	<input type="checkbox"/> 5
c. Teachers are protected from duties that interfere with their essential role of educating students.	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	<input type="checkbox"/> 5
d. School leadership tries to minimize the amount of routine administrative paperwork required of teachers.	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	<input type="checkbox"/> 5
e. The non-instructional time** provided for teachers in my school is sufficient.	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	<input type="checkbox"/> 5

**Teachers means a majority of teachers in your school.*

***Non-instructional time includes collaboration with colleagues, individual planning, meetings/conferences with students and parents, etc.*

Time

Please rate how strongly you agree or disagree with the following statement about the use of time in your school and district.

	Strongly disagree	Somewhat disagree	Neither disagree nor agree	Somewhat agree	Strongly agree
a. Central office has streamlined procedures to minimize principals' time on non-instructional tasks.	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	<input type="checkbox"/> 5
b. Principals* are provided time to collaborate with other principals and district leaders.	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	<input type="checkbox"/> 5
c. Principals are provided time for networking and collaboration outside of the district.	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	<input type="checkbox"/> 5
d. Principals have sufficient time to focus on instructional leadership issues (i.e., data analysis, professional development, etc.)	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	<input type="checkbox"/> 5

**Principals means a majority of principals in your school district.*

Time

In an average week of teaching, how many hours do you have for non-instructional time during the regular school day?

- 1 None
- 2 Less than or equal to 3 hours
- 3 More than 3 hours but less than or equal to 5 hours
- 4 More than 5 hours but less than or equal to 10 hours
- 5 More than 10 hours

Of these hours, how many are available for individual planning?

- 1 None
- 2 Less than or equal to 3 hours
- 3 More than 3 hours but less than or equal to 5 hours
- 4 More than 5 hours but less than or equal to 10 hours
- 5 More than 10 hours

And how many hours are available for structured collaborative planning?

- 1 None
- 2 Less than or equal to 3 hours
- 3 More than 3 hours but less than or equal to 5 hours
- 4 More than 5 hours but less than or equal to 10 hours
- 5 More than 10 hours

Time

In an average week of teaching, how many hours do you spend on school-related activities outside the regular school work day?

- 1 None
- 2 Less than or equal to 3 hours
- 3 More than 3 hours but less than or equal to 5 hours
- 4 More than 5 hours but less than or equal to 10 hours
- 5 More than 10 hours

Time

In an average week of teaching, how much non-instructional time do TEACHERS have available during the regular school day?

- 1 None
- 2 Less than or equal to 3 hours
- 3 More than 3 hours but less than or equal to 5 hours
- 4 More than 5 hours but less than or equal to 10 hours
- 5 More than 10 hours

In an average week of teaching, how many hours do TEACHERS spend on school-related activities outside the regular school work day?

- 1 None
- 2 Less than or equal to 3 hours
- 3 More than 3 hours but less than or equal to 5 hours
- 4 More than 5 hours but less than or equal to 10 hours
- 5 More than 10 hours

Time

In an average week, how many hours do YOU spend on school-related activities?

- 1 Less than 40 hours
- 2 40 - 45 hours
- 3 46 - 50 hours
- 4 51 - 55 hours
- 5 56 - 60 hours
- 6 61 - 65 hours
- 7 66 - 70 hours
- 8 More than 70 hours

Time

In an average week, how much time do YOU devote to the following activities?

	None	Less than or equal to 3 hours	More than 3 hours but less than or equal to 5 hours	More than 5 hours but less than or equal to 10 hours	More than 10 hours
a. Instructional planning with teachers	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	<input type="checkbox"/> 5
b. Observing and coaching teachers	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	<input type="checkbox"/> 5
c. Covering classes for certified or non-certified absences on-site	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	<input type="checkbox"/> 5
d. Meetings with or sponsored by central office	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	<input type="checkbox"/> 5
e. Personnel issues*	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	<input type="checkbox"/> 5
f. Administrative duties**	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	<input type="checkbox"/> 5
g. Meetings with parents and the community	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	<input type="checkbox"/> 5
h. Student discipline issues	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	<input type="checkbox"/> 5
i. Working directly with students (i.e. teaching, tutoring, etc.)	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	<input type="checkbox"/> 5

*Personnel issues includes time hiring, supervising, and remediating all staff on issues not directly related to instructional planning and improvement.

**Administrative duties include tasks related directly to the operations of your school including, but not limited to: transportation, paperwork or other documentation of compliance with district, state or federal requirements, etc.

Facilities and Resources

Please rate how strongly you agree or disagree with the following statements about your school facilities and resources.

	Strongly disagree	Somewhat disagree	Neither disagree nor agree	Somewhat agree	Strongly agree
a. Teachers have sufficient access to appropriate instructional materials* and resources.	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	<input type="checkbox"/> 5
b. Teachers have sufficient access to instructional technology, including computers, printers, software and internet access.	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	<input type="checkbox"/> 5
c. Teachers have sufficient access to communications technology, including phones, faxes, email and network drives.	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	<input type="checkbox"/> 5
d. Teachers have sufficient access to office equipment and supplies such as copy machines, paper, pens, etc.	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	<input type="checkbox"/> 5
e. The reliability and speed of Internet connections in this school are sufficient to support instructional practices.	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	<input type="checkbox"/> 5
f. Teachers have adequate professional space to work productively.	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	<input type="checkbox"/> 5
g. Teachers and staff work in a school environment that is clean and well-maintained.	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	<input type="checkbox"/> 5
h. Teachers and staff work in a school environment that is safe.	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	<input type="checkbox"/> 5

*Instructional materials include items such as textbooks, curriculum materials, content references, etc.

Facilities and Resources

Please rate how strongly you agree or disagree with the following statements about your school facilities and resources.

	Strongly disagree	Somewhat disagree	Neither disagree nor agree	Somewhat agree	Strongly agree
a. My school has a sufficient number of licensed staff provided by the district to meet the educational needs of our students.	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	<input type="checkbox"/> 5
b. My district HR department provides highly qualified applicants for open faculty positions in this school.	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	<input type="checkbox"/> 5
c. My school has a sufficient number of non-licensed staff to operate efficiently and effectively.	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	<input type="checkbox"/> 5
d. My school is provided sufficient data and information to make informed decisions.	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	<input type="checkbox"/> 5
e. My school receives instructional resources commensurate with other schools in the district.	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	<input type="checkbox"/> 5

Educator Leadership

Please rate how strongly you agree or disagree with the following statements about educator leadership in your school.

	Strongly disagree	Somewhat disagree	Neither disagree nor agree	Somewhat agree	Strongly agree
a. Teachers are centrally involved in decision making about educational issues.	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	<input type="checkbox"/> 5
b. Teachers are trusted to make sound professional decisions about instruction.	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	<input type="checkbox"/> 5
c. The faculty has an effective process for making group decisions and solving problems.	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	<input type="checkbox"/> 5
d. In this school we take steps to solve problems.	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	<input type="checkbox"/> 5
e. Opportunities for advancement within the teaching profession (other than administration) are available to me.	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	<input type="checkbox"/> 5

Educator Leadership

Please rate how strongly you agree or disagree with the following statements about empowerment in your district.

	Strongly disagree	Somewhat disagree	Neither disagree nor agree	Somewhat agree	Strongly agree
a. Principals are actively involved in district decision making about educational issues.	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	<input type="checkbox"/> 5
b. Principals are trusted to make sound professional decisions about instruction in this district.	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	<input type="checkbox"/> 5
c. In this district we take steps to solve problems.	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	<input type="checkbox"/> 5
d. The district has an effective process for making group decisions and solving problems.	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	<input type="checkbox"/> 5
e. The district involves principals in decisions that directly impact the operations of my school.	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	<input type="checkbox"/> 5

Educator Leadership

Please indicate how large a role teachers have at your school in each of the following areas.

	No role at all	Small role	Moderate role	Large role	The primary role
a. Selecting instructional materials and resources	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	<input type="checkbox"/> 5
b. Devising teaching techniques	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	<input type="checkbox"/> 5
c. Setting grading and student assessment practices	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	<input type="checkbox"/> 5
d. Determining the content of in-service professional development programs	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	<input type="checkbox"/> 5
e. Hiring new teachers	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	<input type="checkbox"/> 5
f. Establishing and implementing policies and student discipline	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	<input type="checkbox"/> 5
g. Deciding how the school budget will be spent	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	<input type="checkbox"/> 5
h. School improvement planning	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	<input type="checkbox"/> 5

Members of the school improvement team are elected.

- 1 Yes
 2 No
 3 Don't know

Educator Leadership

Please indicate how large a role YOU and/or your leadership team have in each of the following areas in your school.

	No role at all	Small role	Moderate role	Large role	The primary role
a. Selecting instructional materials and resources	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	<input type="checkbox"/> 5
b. Devising teaching techniques	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	<input type="checkbox"/> 5
c. Setting grading and student assessment practices	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	<input type="checkbox"/> 5
d. Determining the content of in-service professional development programs	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	<input type="checkbox"/> 5
e. Implementing mentoring programs for new teachers	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	<input type="checkbox"/> 5
f. Hiring new teachers	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	<input type="checkbox"/> 5
g. Evaluating teachers	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	<input type="checkbox"/> 5
h. Removing teachers/teacher transfer	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	<input type="checkbox"/> 5
i. Establishing and implementing policies for student discipline	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	<input type="checkbox"/> 5
j. Establishing the school schedule	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	<input type="checkbox"/> 5
k. Establishing DISTRICT budget priorities	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	<input type="checkbox"/> 5
l. Establishing SCHOOL budget priorities	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	<input type="checkbox"/> 5
m. School improvement planning	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	<input type="checkbox"/> 5
n. Establishing the school mission and vision	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	<input type="checkbox"/> 5

School Leadership

Please rate how strongly you agree or disagree with statements about leadership in your school.

	Strongly disagree	Somewhat disagree	Neither disagree nor agree	Somewhat agree	Strongly agree
a. There is an atmosphere of trust and mutual respect within the school.	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	<input type="checkbox"/> 5
b. The faculty are committed to helping every student learn.	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	<input type="checkbox"/> 5
c. The school leadership communicates clear expectations to students and parents.	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	<input type="checkbox"/> 5
d. The school leadership shields teachers from disruptions, allowing teachers to focus on educating students.	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	<input type="checkbox"/> 5
e. The school leadership consistently enforces rules for student conduct.	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	<input type="checkbox"/> 5
f. The school leadership support teachers' efforts to maintain discipline in the classroom.	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	<input type="checkbox"/> 5
g. Opportunities are available for members of the community to actively contribute to this school's success.	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	<input type="checkbox"/> 5
h. The school leadership consistently supports teachers.	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	<input type="checkbox"/> 5
i. The school improvement team provides effective leadership at this school.	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	<input type="checkbox"/> 5
j. The faculty and staff have a shared vision.	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	<input type="checkbox"/> 5
k. Teachers are held to high professional standards for delivering instruction.	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	<input type="checkbox"/> 5
l. Teacher performance evaluations are handled in an appropriate manner.	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	<input type="checkbox"/> 5
m. The procedures for teacher performance evaluations are consistent.	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	<input type="checkbox"/> 5
n. Teachers receive feedback that can help them improve teaching.	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	<input type="checkbox"/> 5

School Leadership

Please rate how strongly you agree or disagree with statements about leadership in your district.

	Strongly disagree	Somewhat disagree	Neither disagree nor agree	Somewhat agree	Strongly agree
a. Central office supports appropriate school improvement decisions when challenged by parents and the community.	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	<input type="checkbox"/> 5
b. The district clearly defines expectations for schools.	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	<input type="checkbox"/> 5
c. The district provides constructive feedback to principals toward improving performance.	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	<input type="checkbox"/> 5
d. There is an atmosphere of trust and mutual respect within this district.	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	<input type="checkbox"/> 5
e. Central office provides principals support when they need it.	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	<input type="checkbox"/> 5
f. The district has a clearly defined mission and vision for all schools.	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	<input type="checkbox"/> 5
g. The district encourages cooperation among schools.	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	<input type="checkbox"/> 5

School Leadership

The school leadership makes a sustained effort to address teacher concerns about:

	Strongly disagree	Somewhat disagree	Neither disagree nor agree	Somewhat agree	Strongly agree
a. Facilities and resources.	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	<input type="checkbox"/> 5
b. The use of time in my school.	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	<input type="checkbox"/> 5
c. Professional development.	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	<input type="checkbox"/> 5
d. Empowering teachers	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	<input type="checkbox"/> 5
e. Leadership issues.	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	<input type="checkbox"/> 5
f. New teacher support.	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	<input type="checkbox"/> 5

Overall, the school leadership in my school is effective.

- 1 Strongly disagree
 2 Somewhat disagree
 3 Neither disagree nor agree
 4 Somewhat agree
 5 Strongly agree

School Leadership

Which position best describes the person who most often provides instructional leadership at your school? (*Select one.*)

- 1 a. Principal or school head
 2 b. Assistant or vice principal
 3 c. Department chair or grade level chair
 4 d. School-based instructional specialist
 5 e. Director of curriculum and instruction or other central office based personnel
 6 f. Other teachers
 7 h. None of the above

Professional Development

Please rate how strongly you agree or disagree with statements about professional development in your school.

	Strongly disagree	Somewhat disagree	Neither disagree nor agree	Somewhat agree	Strongly agree
a. Sufficient funds and resources are available to allow teachers to take advantage of professional development activities.	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	<input type="checkbox"/> 5
b. Teachers are provided with opportunities to learn from one another.	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	<input type="checkbox"/> 5
c. Adequate time is provided for professional development.	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	<input type="checkbox"/> 5
d. Teachers have sufficient training to fully utilize instructional technology.	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	<input type="checkbox"/> 5
e. Professional development provides teachers with the knowledge and skills most needed to teach effectively.	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	<input type="checkbox"/> 5

Professional Development

In which of the following areas (if any) do you need professional development to teach your students more effectively? *(Check all that apply.)*

- 1 a. Special Education
- 2 b. Gifted and talented
- 3 c. English Language Learners
- 4 d. Closing the achievement gap
- 5 e. Your content area(s)
- 6 f. Methods of teaching
- 7 g. Student assessment
- 8 h. Classroom management techniques
- 9 i. Reading strategies

In the past 2 years have you had 10 clock hours or more of professional development in any of the following areas? *(Check all that apply.)*

- 1 a. Special Education
- 2 b. Gifted and talented
- 3 c. English Language Learners
- 4 d. Closing the achievement gap
- 5 e. Your content area(s)
- 6 f. Methods of teaching
- 7 g. Student assessment
- 8 h. Classroom management techniques
- 9 i. Reading strategies

In which of the following areas (if any) do TEACHERS need additional support to teach students in your school more effectively? *(Check all that apply.)*

- 1 a. Special Education
- 2 b. Gifted and talented
- 3 c. English Language Learners
- 4 d. Closing the achievement gap
- 5 e. Content area(s)
- 6 f. Methods of teaching
- 7 g. Student assessment
- 8 h. Classroom management techniques
- 9 i. Reading strategies

Professional Development

Professional development has provided YOU with strategies that you have incorporated into your instructional delivery methods.

- 1 Strongly disagree
- 2 Somewhat disagree
- 3 Neither disagree nor agree
- 4 Somewhat agree
- 5 Strongly agree

Professional development has provided teachers with strategies that that they have incorporated into your instructional delivery methods.

- 1 Strongly disagree
- 2 Somewhat disagree
- 3 Neither disagree nor agree
- 4 Somewhat agree
- 5 Strongly agree

Professional development has proven useful to YOU in your efforts to improve student achievement.

- 1 Strongly disagree
- 2 Somewhat disagree
- 3 Neither disagree nor agree
- 4 Somewhat agree
- 5 Strongly agree

Professional development has proven useful to teachers in their efforts to improve student achievement.

- 1 Strongly disagree
- 2 Somewhat disagree
- 3 Neither disagree nor agree
- 4 Somewhat agree
- 5 Strongly agree

I participate in ongoing follow up from professional development opportunities that help me improve my teaching.

- 1 Strongly disagree
- 2 Somewhat disagree
- 3 Neither disagree nor agree
- 4 Somewhat agree
- 5 Strongly agree

Professional Development

Professional development opportunities are made available to principals in this district.

- 1 Strongly disagree
- 2 Somewhat disagree
- 3 Neither disagree nor agree
- 4 Somewhat agree
- 5 Strongly agree

Professional development provides principals with the knowledge and skills most needed to be effective.

- 1 Strongly disagree
- 2 Somewhat disagree
- 3 Neither disagree nor agree
- 4 Somewhat agree
- 5 Strongly agree

Professional Development

In which of the following areas (if any) do you need additional support to lead your school more effectively? (Check all that apply.)

- 1 a. Instructional leadership
- 2 b. Student assessment
- 3 c. Creating positive learning environments
- 4 d. School improvement planning
- 5 e. Budgeting
- 6 f. School scheduling
- 7 g. Staffing (hiring, etc.)
- 8 h. Teacher evaluation
- 9 i. Teacher remediation/coaching
- 10 j. Data-driven decision-making
- 11 k. Working with parents and the community

In the past 2 years have you had 10 clock hours or more of professional development in any of the following areas? (Check all that apply.)

- 1 a. Instructional leadership
- 2 b. Student assessment
- 3 c. Creating positive learning environments
- 4 d. School improvement planning
- 5 e. Budgeting
- 6 f. School scheduling
- 7 g. Staffing (hiring, etc.)
- 8 h. Teacher evaluation
- 9 i. Teacher remediation/coaching
- 10 j. Data-driven decision-making
- 11 k. Working with parents and the community

Professional Development

Principal professional development is a priority in this district.

- 1 Strongly disagree
- 2 Somewhat disagree
- 3 Neither disagree nor agree
- 4 Somewhat agree
- 5 Strongly agree

Sufficient resources are available to principals to participate in professional development opportunities.

- 1 Strongly disagree
- 2 Somewhat disagree
- 3 Neither disagree nor agree
- 4 Somewhat agree
- 5 Strongly agree

Overall

Which aspect of your work environment MOST affects your willingness to keep teaching at your school? (Select one.)

- 1 Time during the work day
- 2 School facilities and resources
- 3 School leadership
- 4 Teacher empowerment
- 5 Professional Development

Which aspect of your work environment MOST affects teachers' willingness to keep teaching at your school? (Select one.)

- 1 Time during the work day
- 2 School facilities and resources
- 3 School leadership
- 4 Teacher empowerment
- 5 Professional Development

Which aspect of these five working conditions is MOST important to you in promoting student learning? (Select one.)

- 1 Time during the work day
- 2 School facilities and resources
- 3 School leadership
- 4 Teacher empowerment
- 5 Professional Development

Overall

Which aspect of these five working conditions **MOST** affects **YOUR** willingness to remain as principal in this school? *(Select one.)*

- 1 Time
- 2 School facilities and resources
- 3 District leadership
- 4 School empowerment/site-based decision making
- 5 Professional Development

Which aspect of these five working conditions is **MOST** important to you in promoting student learning? *(Select one.)*

- 1 Time
- 2 School facilities and resources
- 3 District leadership
- 4 School empowerment/site-based decision making
- 5 Professional Development

Overall

Overall, my school is a good place to teach and learn.

- 1 Strongly disagree
- 2 Somewhat disagree
- 3 Neither disagree nor agree
- 4 Somewhat agree
- 5 Strongly agree

At this school we utilize the results from the Teacher Working Conditions survey as a tool for school improvement.

- 1 Strongly disagree
- 2 Somewhat disagree
- 3 Neither disagree nor agree
- 4 Somewhat agree
- 5 Strongly agree

Overall

Which **BEST DESCRIBES** your professional intentions in the next 2 years?

- 1 Continue teaching at my current school
- 2 Continue teaching in my current district
- 3 Continue teaching in this state
- 4 Leave teaching for another position in education (administration, etc.)
- 5 Leave teaching for personal reasons (health, family, etc.)
- 6 Retire from teaching
- 7 Leave teaching for another reason

Which BEST DESCRIBES your professional intentions in the next 2 years?

- 1 Continue as a principal at my current school
- 2 Continue as a principal in my current district
- 3 Continue as a principal in this state
- 4 Leave the principalship for another administrative or teaching position
- 5 Leave the principalship for personal reasons (health, family, etc.)
- 6 Retire from the principalship
- 7 Leave the principalship for another reason

Demographics

Please indicate your race/ethnicity. (Select one.)

- 1 American Indian or Alaska Native
- 2 Asian or Pacific Islander
- 3 Black or African American
- 4 Hispanic
- 5 White
- 6 Mixed or multiple ethnicity
- 7 Some other race or ethnicity

Please indicate your gender. (Select one.)

- 1 Female
- 2 Male

Demographics

How did you train to become an educator?

- 1 Bachelor's degree
- 2 Master's degree
- 3 Alternative route or lateral entry

What is the highest degree you have attained?

- 1 Bachelor's degree
- 2 Master's degree
- 3 Doctorate
- 4 Other

Demographics

Are you certified by National Board for Professional Teaching Standards (NBPTS)?

- 1 Yes
 2 No

Have you served as a mentor to new teachers in North Carolina in the past five years?

- 1 Yes
 2 No

Mentoring

Have you been formally assigned a mentor during any of your first three years teaching in North Carolina?

- 1 Yes
 2 No

Have you been formally assigned a mentor in your first AND second year teaching in North Carolina?

- 1 Yes
 2 No

Mentoring

Please answer the following items for YOUR MOST RECENT mentoring experience.

My mentor provided effective support in the following areas.

	Strongly disagree	Somewhat disagree	Neither disagree nor agree	Somewhat agree	Strongly agree
a. Instructional strategies	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	<input type="checkbox"/> 5
b. Curriculum and subject content I teach	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	<input type="checkbox"/> 5
c. Classroom management/discipline strategies	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	<input type="checkbox"/> 5
d. School and/or district policies and procedures	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	<input type="checkbox"/> 5
e. Completing products or documentation required of new teachers	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	<input type="checkbox"/> 5
f. Completing other school or district paperwork	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	<input type="checkbox"/> 5
g. Social support and general encouragement	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	<input type="checkbox"/> 5
h. Other	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	<input type="checkbox"/> 5

Mentoring

Please indicate whether each of the following were true for you and your mentor.

- | | Yes | No |
|---|----------------------------|----------------------------|
| a. My mentor and I were in the same building. | <input type="checkbox"/> 1 | <input type="checkbox"/> 2 |
| b. My mentor and I taught in the same content area. | <input type="checkbox"/> 1 | <input type="checkbox"/> 2 |
| c. My mentor and I taught the same grade level. | <input type="checkbox"/> 1 | <input type="checkbox"/> 2 |

On average, how often did you engage in each of the following activities with your mentor?

- | | Never | Less than
once per
month | Once per
month | Several
times per
month | Once per
week | Almost
daily |
|--|----------------------------|--------------------------------|----------------------------|-------------------------------|----------------------------|----------------------------|
| a. Planning during the school day with my mentor | <input type="checkbox"/> 1 | <input type="checkbox"/> 2 | <input type="checkbox"/> 3 | <input type="checkbox"/> 4 | <input type="checkbox"/> 5 | <input type="checkbox"/> 6 |
| b. Being observed teaching by my mentor | <input type="checkbox"/> 1 | <input type="checkbox"/> 2 | <input type="checkbox"/> 3 | <input type="checkbox"/> 4 | <input type="checkbox"/> 5 | <input type="checkbox"/> 6 |
| c. Observing my mentor's teaching | <input type="checkbox"/> 1 | <input type="checkbox"/> 2 | <input type="checkbox"/> 3 | <input type="checkbox"/> 4 | <input type="checkbox"/> 5 | <input type="checkbox"/> 6 |
| d. Planning instruction with my mentor | <input type="checkbox"/> 1 | <input type="checkbox"/> 2 | <input type="checkbox"/> 3 | <input type="checkbox"/> 4 | <input type="checkbox"/> 5 | <input type="checkbox"/> 6 |
| e. Having discussions with my mentor about my teaching | <input type="checkbox"/> 1 | <input type="checkbox"/> 2 | <input type="checkbox"/> 3 | <input type="checkbox"/> 4 | <input type="checkbox"/> 5 | <input type="checkbox"/> 6 |

Mentoring

Of the success you have had as a beginning teacher, what proportion would you attribute to your mentoring experience?

- 1 None
- 2 Hardly any
- 3 Some
- 4 Quite a bit
- 5 A great deal

Overall, my mentoring experience has been important in my decision to continue teaching at this school.

- 1 Strongly disagree
- 2 Somewhat disagree
- 3 Neither disagree nor agree
- 4 Somewhat agree
- 5 Strongly agree

Mentoring

Did your mentor perform your peer evaluation?

- 1 Yes
- 2 No

Did your mentor perform peer evaluations for other teachers in your school?

- 1 Yes
- 2 No

Mentor Questions

If you have served as mentor in the past 5 years, please answer the following questions for YOUR MOST RECENT mentoring experience.

Are you a full time release mentor?

- 1 Yes
 2 No

How many teachers did/do you mentor?

- 1 1
 2 2
 3 3
 4 4 - 6
 5 7 - 10
 6 10+

On average, how often did/do you meet with your mentee(s)?

- 1 Never
 2 Less than once per month
 3 Once per month
 4 Several times per month
 5 Once per week
 6 Almost daily

Mentor Questions

Please indicate which best describes you and your mentee(s).

	None of them	Some of them	All of them
a. My mentee(s) and I were in the same building.	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3
b. My mentee(s) and I taught in the same content area.	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3
c. My mentee(s) and I taught the same grade level.	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3

On average, how often did you engage in each of the following activities with your mentee(s)?

	Never	Less than once per month	Once per month	Several times per month	Once per week	Almost daily
a. Planning during the school day with my mentee(s)	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	<input type="checkbox"/> 5	<input type="checkbox"/> 6
b. Observing my mentee(s)' teaching	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	<input type="checkbox"/> 5	<input type="checkbox"/> 6
c. Being observed by my mentee(s)	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	<input type="checkbox"/> 5	<input type="checkbox"/> 6
d. Planning instruction with my mentee(s)	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	<input type="checkbox"/> 5	<input type="checkbox"/> 6
e. Having discussions with my mentee(s) about their teaching	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	<input type="checkbox"/> 5	<input type="checkbox"/> 6

Mentor Questions

Please indicate which of the following kinds of support, if any, you received as a formally assigned mentor. (Check all that apply.)

- 1 Release time to observe your mentee(s)
- 2 Release time to observe other mentors
- 3 Reduced teaching schedule
- 4 Reduced number of preparations
- 5 Common planning time with teachers you are mentoring
- 6 Specific training to serve as a mentor (e.g., seminars or classes)
- 7 Regular communication with principals, other administrator or department chair
- 8 Other

Principal Mentoring

Have you been **formally*** assigned a mentor in the past three years?

- 1 Yes
- 2 No

**Formally means assigned by the superintendent or other central office staff to a mentor (another principal, administrator, etc.) to provide induction and additional support.*

Principal Mentoring

My mentor was effective in providing support in the following areas:

	Strongly disagree	Somewhat disagree	Neither disagree nor agree	Somewhat agree	Strongly agree
a. Instructional leadership	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	<input type="checkbox"/> 5
b. School improvement planning	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	<input type="checkbox"/> 5
c. Budgeting	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	<input type="checkbox"/> 5
d. Scheduling	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	<input type="checkbox"/> 5
e. Staffing (hiring, firing, etc.)	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	<input type="checkbox"/> 5
f. Teacher evaluation	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	<input type="checkbox"/> 5
g. Teacher remediation	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	<input type="checkbox"/> 5
h. Data-driven decision-making	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	<input type="checkbox"/> 5
i. Working with parents and the community	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	<input type="checkbox"/> 5

Principal Mentoring

Please indicate whether each of the following were true for you and your mentor.

	Yes	No
a. My mentor and I work in schools at the same level.	<input type="checkbox"/> 1	<input type="checkbox"/> 2
b. My mentor and I work in the same district.	<input type="checkbox"/> 1	<input type="checkbox"/> 2
c. My mentor and I work in schools within 50 miles of each other.	<input type="checkbox"/> 1	<input type="checkbox"/> 2

On average, how often did you engage in each of the following activities with your mentor?

	Never	Less than once per month	Once per month	Several times per month	Once per week	Almost daily
a. Coaching conversations with my mentor	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	<input type="checkbox"/> 5	<input type="checkbox"/> 6
b. Being observed in my school by my mentor	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	<input type="checkbox"/> 5	<input type="checkbox"/> 6
c. Observing my mentor's school	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	<input type="checkbox"/> 5	<input type="checkbox"/> 6
d. School improvement planning with my mentor	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	<input type="checkbox"/> 5	<input type="checkbox"/> 6
e. Having discussions with my mentor about leadership	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	<input type="checkbox"/> 5	<input type="checkbox"/> 6

Principal Mentoring

Overall, my mentoring experience has been important in my decision to remain as principal in this school.

- 1 Strongly disagree
- 2 Somewhat disagree
- 3 Neither disagree nor agree
- 4 Somewhat agree
- 5 Strongly agree

My mentoring experience has been important in my effectiveness as a school leader.

- 1 Strongly disagree
- 2 Somewhat disagree
- 3 Neither disagree nor agree
- 4 Somewhat agree
- 5 Strongly agree

**Thank you for your time.
Please submit your responses.**

Appendix B: IRB Approval

To: Anita Brendle-Corum

CAMPUS MAIL

From: _____
Julie Taubman, IRB Administrator

Date: 12/15/2009

RE: Determination that Research or Research-Like Activity does not require IRB Approval

Study #: 10-0123

Study Title: Exploring Characteristics of Public School Facilities and Resources and the Relationship with Teacher Retention

This submission was reviewed by the IRB. It was determined that it does not constitute human subjects research as defined under federal regulations [45 CFR 46.102 (d or f)] and does not require IRB approval. If your study protocol changes, this determination may no longer apply, and you should contact the IRB before making the changes.

BIOGRAPHICAL SKETCH

Anita Dawn Brendle-Corum was born on June 6, 1975, and was raised in Catawba County in North Carolina by both her parents. She attended public school in Newton, North Carolina, and graduated from Fred T. Foard High School in June 1993. The following autumn, she entered Appalachian State University and was awarded a Bachelor of Science degree in Elementary Education in 1997; where she was subsequently hired as a second grade teacher in Raleigh, North Carolina. She received a Master of Education in Elementary Education from The University of North Carolina at Charlotte in December 2001 while working as a first grade teacher in Winston-Salem, North Carolina. The next spring, she was awarded the North Carolina Principal Fellows Scholarship, which allowed her to complete a two-year full-time Master of School Administration degree from The University of North Carolina at Greensboro in May 2004. Her career in school administration began the next month as an assistant principal in Cabarrus County in North Carolina at C. C. Griffin Middle School. She began working on her Education Specialist degree in Educational Administration from Appalachian State University that summer and graduated in May 2006. The following summer, she continued her schooling while working as an assistant principal at Bethel Elementary School in Cabarrus County. Mid-way through the program, she became a full-time student. She was awarded a Doctor of Education in Educational Leadership degree from Appalachian State University in August 2010.

Mrs. Brendle-Corum lives in Harrisburg, N.C., is married to Brian Corum, and has one child, Corbin, 22 months. Her parents are Dean and Betty Brendle of Vale, North Carolina.