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Perceptions Of North Dakota Principals Regarding Teacher Hiring Practices

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PERCEPTIONS OF NORTH DAKOTA PRINCIPALS REGARDING TEACHER HIRING PRACTICES

by

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This dissertation, submitted by David James Saxberg in partial fulfillment of the requirements for the Degree of Doctor of Philosophy from the University of North Dakota, has been read by the Faculty Advisory committee under whom the work has been done and is hereby approved.

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Title	Perceptions of North Dakota Principals Regarding Teacher Hiring Practices
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David J. Saxberg
July 5, 2012

TABLE OF CONTENTS

LIST OF TABLES

Table Page

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ABSTRACT

The purpose of this study was to determine the extent to which North Dakota public school principals consider research-based professional and personal teacher characteristics when hiring teachers. Additionally, this study sought to determine North Dakota public school principals' perceptions regarding teacher hiring practices – the interviewing and teacher selection process.

This study utilized the conceptual framework on effective teacher qualities and personal teacher characteristics that are taken into consideration during the interviewing and teacher selection process. Participating principals completed surveys that asked them to rank order professional and personal teacher characteristics when considering teachers for hire. The principals also reported on a Likert-type scale the extent they agreed with statements regarding interviewing and selecting teachers in their school districts.

The results of this study revealed that North Dakota public school principals take into consideration research-based effective teacher characteristics when they hire teachers. Evidence from this study could help principals make informed decisions for hiring the most effective teachers. Information obtained from this study may also help school district leaders analyze their hiring policies, practices, and procedures, and make any necessary changes for identifying and hiring effective teachers.

Recommendations for practice as a result of this study include: school districts working to ensure hiring policies and procedures are developed, principals providing appropriate interview training for interview committee members, teacher preparation

programs updating prospective teachers on principals' perceptions of the teacher hiring process, and principal preparation programs providing training for prospective principals in the teacher hiring process.

Keywords: Effective teachers, Teacher hiring, Interviewing, Teacher selection

CHAPTER I

INTRODUCTION

"If we want our students to succeed to their maximum potential, having a quality teacher working with every student is paramount" (Stronge & Hindman, 2006, p. 1). Teachers with the characteristics and skills necessary to meet the ever-increasing demands of society for increased school improvement and student achievement are imperative (Murnane & Steele, 2007). Further, students need a high quality public education led by effective teachers to prepare them with the skills needed to meet the demands of the future. Highly effective teachers are needed in public schools to teach students the skills they will require to succeed in a competitive economy in the United States and abroad (Murnane & Steele, 2007).

An effective teacher is defined by characteristics associated with positive student achievement (Danielson, 2007; Lauer, Dean, Martin-Glenn, & Asensio, 2005; Little, Goe, & Bell, 2009; Marzano, 2003; Marzano, 2007; Marzano, Pickering, & Pollock, 2001; McEwan, 2002; Stronge, 2007). Marzano et al. (2001) defined the effective teacher as employing certain instructional strategies linked to positive student academic growth. Additionally, Marzano (2003) defined the effective teacher according to how the teacher manages the classroom and designs classroom curriculum.

According to Stronge's *Qualities of Effective Teachers* (2007), effective teachers possess certain research-based characteristics (professional and personal) associated with

positive student achievement. Danielson's *Framework for Teaching* (2007) also defines the effective teacher by a research-based set of responsibilities and characteristics linked to student academic and social achievement. Moreover, Little et al. (2009) described an effective teacher as helping students with their social skills and attitudes about learning. Finally, the United States federal government through the No Child Left Behind (NCLB) Act of 2001 defines an effective teacher as holding a bachelor's degree, being licensed in the state in which they teach, and demonstrating subject area competence.

Since teacher effectiveness is highly correlated to students' success in schools (Reeves, 2009), teacher selection is one of the most important responsibilities of a principal (Kersten, 2008; Norton, 2008; Stronge & Hindman, 2006). Principals who understand research-based effective teacher characteristics and how to utilize research-based hiring practices in teacher selection are more likely to select quality teachers (Cohen-Vogel, 2011; Stronge, 2007). Beteille, Kalogrides, and Loeb (2009) noted that principals play a critical role in the quality of instruction and the learning process by recommending effective teachers for hire to the school board. Other key factors affecting the teacher hiring process include: district policies and procedures, negotiated agreements between school boards and teachers, budgeting, and enrollment forecasts (Stotko, Ingram, & Beaty-O'Ferrall, 2007; Strunk & Grissom, 2010).

The teacher hiring process involves recruiting, screening, interviewing and then selecting the teacher candidate to be recommended for hire. Recruitment is the practice of attracting and identifying personnel in order to gather an ample collection of potential candidates for vacant positions (Norton, 2008). School districts can successfully attract quality teacher applicants using effective recruitment strategies (Balter &

Duncombe, 2008). The interview process is an important step as principals determine the most appropriate teachers to hire (Clement, 2009; Mason & Schroeder, 2010; Sargent, 2003). School districts screen the applicants from the applicant pool to narrow the field for potential candidates to interview (Balter & Duncombe, 2005; Mason & Schroeder, 2010; Norton, 2008; Peterson, 2002). The Teacher Quality Index protocol by Stronge and Hindman (2006) provides principals with a research-based structured interview tool designed to align candidates' responses during the interview with research-based effective teacher characteristics.

Problem Statement

The quality of the classroom teacher makes a significant difference on student achievement and school success (Danielson, 2007; Marzano, 2003; Stronge, 2007; Stronge & Hindman, 2006; Whitaker, 2004). Effective teachers have been linked to students' academic and social success in schools (Balter & Duncombe, 2005; Darling-Hammond & Youngs, 2002; Marzano, 2003; Mason & Schroeder, 2010; National Council on Teacher Quality, n.d.; Peterson & Goodwin, 2008; Stronge & Hindman, 2006). According to Marzano (2003), students with effective teachers learn more in an academic year than their peers who have less competent teachers. Furthermore, the cumulative effect for student achievement over three years between students with the least effective and the most effective teachers is almost 50 percentile points (Marzano, 2003, p. 73).

A school's success is dependent on the individual teachers within the building (Mason & Schroeder, 2010; Stronge & Hindman, 2006). Good teachers are fundamental for school-wide initiatives, school improvement, curriculum design and implementation,

and overall climate and culture of the school (Mason & Schroeder, 2010; Peterson, 2002; Whitaker, 2004). Good teachers influence the overall success of school programs (Clement, 2009; Mason & Schroeder, 2010).

Since as many as one third of teachers leave teaching after the first year (Norton, 2008), the cost of poor teacher hiring decisions must be taken into consideration. Having to rehire after making poor hiring decisions is also a financial burden to school districts (Darling-Hammond, 2006). Benner (as cited in Darling-Hammond, 2006) reported a study that estimated the cost of thousands of dollars for replacing teachers. Students will not only be negatively impacted in the classroom, academically and socially, due to ineffective hiring but also the whole culture of the school will suffer (Peterson, 2002).

Hiring teachers is one of the most important responsibilities of school principals (Clement, 2009; Mason & Schroeder, 2010; Peterson, 2002; Stronge & Hindman, 2006). However, often, the interview process is conducted in an unreliable or invalid manner (Stronge & Hindman, 2006). With a recent emphasis on school accountability based on student academic achievement (Boyd, Goldhaber, Lankford, & Wyckoff, 2007), principals play an important role in the hiring process for effective teachers (National Council on Teacher Quality, 2010). The council suggested that decisions on teacher hiring be made at the building level with strong principal involvement.

Contrary to using research-based characteristics when selecting teachers, most principals rely on personal preferences and perceptions on what constitutes an effective teacher (Stronge & Hindman, 2006). For instance, some principals may consider an effective teacher to be one who has a master's degree in education while others perceive an effective teacher as one who graduated from a certain college or university. The goal

of teacher hiring should be to select a highly effective teacher for every student (Stronge & Hindman, 2006). Thus, hiring teachers based on research-based effective characteristics would help to improve students and overall school success (Stronge & Hindman, 2006).

Successful teacher hiring involves the process of interviewing candidates who exhibit effective teacher characteristics (Stronge & Hindman, 2006). The top candidate is then selected and recommended to the school board for hire. The research-based effective teacher characteristics valued by North Dakota public school principals when considering teacher candidates for hire are unknown. Furthermore, North Dakota public school principals' perceptions of the teacher hiring process when interviewing and selecting teachers for hire are unknown. For principals to have a better understanding and to make better-informed decisions during teacher hiring, information is needed to assist principals in the important task of hiring effective teachers.

Conceptual Framework

Teachers affect what students learn, as well as assist students to learn how to get along well in society (Stronge, 2007). This study utilized the conceptual framework on effective teacher qualities and personal teacher characteristics (Stronge, 2007) that are taken into consideration during the interviewing and teacher selection process. Stronge (2007) identified specific teacher behaviors and characteristics that contribute to positive student achievement. Stronge's research on effective teacher qualities can be classified as professional teacher characteristics and personal teacher characteristics. Effective professional teacher characteristics include: classroom management and organization,

planning and organizing for instruction, implementing instruction, and monitoring student progress and potential. A summary of this information is provided in Table 1.

Table 1. Stronge's Qualities of Effective Professional Teacher Characteristics.

Effective Professional Teacher Characteristics
Classroom Management and Organization
Classroom Management
Organization
Expectations for Student Behavior/Discipline of Students
Planning and Organization for Instruction
Focusing on Instruction
Maximizing Instructional Time
Expecting Students to Achieve
Planning and Preparing for Instruction
Implementing Instruction
Instructional Strategies
Communication of Content and Expectations
Instructional Complexity
Questioning Strategies
Student Engagement
Monitoring Student Progress and Potential
Homework
Monitoring Student Progress
Responding to Student Needs and Abilities

The affective characteristics of the teacher as a person have great influence on student achievement (Danielson, 2007; Stronge, 2007). Principals can utilize Stronge's framework on effective teacher qualities during the interview and selection process to identify teacher candidates with the professional and personal characteristics of effective teaching (Stronge, 2007). Further, the research on effective personal teacher characteristics could be used to identify teacher candidates with the research-based

personal teacher characteristics aligned with student achievement. The qualities and indicators connected to effective personal teacher effectiveness are provided in Table 2.

Table 2. Stronge's Qualities of Effective Personal Teacher Characteristics.

Effective Personal Teacher Characteristics
The Teacher as a Person
Caring and Concern for Students
Fairness and Respect
Attitude Toward the Teaching Profession
Interactions with Students
Promotion of Enthusiasm and Motivation for Learning
Reflective Practice of Teaching
Dedication to Teaching
Verbal Ability

Purpose of the Study

The purpose of this study was to determine the extent to which North Dakota public school principals consider research-based professional and personal teacher characteristics when hiring teachers. Additionally, this study sought to determine North Dakota public school principals' perceptions regarding teacher hiring practices – the interviewing and selection process.

Significance of the Study

Hiring effective teachers is a primary responsibility for school administrators and more information on the teacher hiring process is needed to assist principals in selecting and hiring the most effective teachers (Balter & Duncombe, 2005; Mason & Schroeder, 2010; Peterson, 2002). Given the role of teachers in regard to curriculum, classroom management, instructional strategies, and instructional planning and preparation

(Danielson, 2007; Marzano, 2003; Stronge, 2007; Whitaker, 2004), evidence from this study could assist principals to make informed decisions for hiring the most effective teachers. Examining perceptions of principals regarding the teacher hiring process is important for university professors to prepare effective teacher candidates who are aware of what principals might be looking for during the hiring process.

This study could be also be relevant for school district leaders (school board members, superintendents), parents and stakeholders. School districts spend relatively large portions of their budgets on teachers. Investing taxpayer money on the best teachers is wise for fiscal and educational reasons. Finally, information obtained from this study may help school district leaders analyze their hiring policies, practices, and procedures, and make any necessary changes for identifying and hiring effective teachers.

Research Questions

The study examined the following research questions:

1. When considering teachers for hire, how do North Dakota public school principals rank a list including five research-based and five non-research based professional teacher characteristics?
2. When considering teachers for hire, what are the significant differences in how North Dakota public school principals rank a list including five research-based and five non-research based professional teacher characteristics?
3. When considering teachers for hire, how do North Dakota public school principals rank a list including five research-based and five non-research based personal teacher characteristics?

4. When considering teachers for hire, what are the significant differences in how North Dakota public school principals rank a list including five research-based and five non-research based personal teacher characteristics?
5. What are North Dakota public school principals' perceptions of the interviewing and selection process during teacher hiring?

Definitions

The definitions of terms critical to this study are provided below:

Effective Teacher: Effective teachers provide instruction so their students achieve educational and social success. Certain behaviors of effective teachers and effective teaching have been connected to student achievement (Danielson, 2007; Stronge, 2007). Effective teachers are the result of a combination of personal and professional characteristics (Stronge, 2007).

Professional Characteristics of Teachers: Effective teachers exhibit their professional knowledge acquired from formal training and experience in areas of planning and preparation, classroom management, instruction, and monitoring student progress (Danielson, 2007; Stronge, 2007).

Personal Characteristics of Teachers: The personal characteristics of an effective teacher include the ability to care deeply, recognize complexity, communicate clearly, and serve conscientiously (Stronge, 2007, p. 100).

Qualities of Effective Teachers: Identifies specific attributes that characterize teacher effectiveness for the prerequisite themes of effective teaching, teacher as a person, classroom management and classroom organization, instructional planning and organization, and implementing instruction (Stronge, 2007).

Class A School District: A school district in North Dakota with 325 or more students in high school.

Class B School District: A school district in North Dakota with less than 325 students in high school.

Teacher Hiring Process: The procedures and practices used by education administrators when hiring teachers that include: recruitment, screening, interviewing, and selection.

Recruitment: The strategies utilized by school districts to attract a pool of qualified applicants. Effective recruiting results in an ample supply of applicants for teacher openings (Stronge & Hindman, 2006).

Screening: Screening involves analyzing the application paperwork (resumes, credentials, letters of recommendation, portfolios), verbal references, teaching experience, teaching certification, and professional characteristics to determine the teacher applicants to interview (Balter & Duncombe, 2005; Mason & Schroeder, 2010; Norton, 2008; Peterson, 2002).

Interview: The interview consists of questions designed and asked by the interviewer to evaluate applicants for vacant positions (Stronge & Hindman, 2006). The interview is typically used for making the final hiring decision (Mason & Schroeder, 2010).

Selection: The process resulting in choosing the best-qualified candidate among the applicants and then making a final hiring decision (Norton, 2008; Peterson, 2002; Stronge & Hindman, 2006).

NCLB: The No Child Left Behind Act of 2001 is the current reauthorization of the Elementary and Secondary Education Act.

KIPP: The Knowledge is Power Program is a national network of free, open-enrollment, college-preparatory public charter schools.

TQI: The Teacher Quality Index is a research-based interview protocol designed by Stronge and Hindman (2006) to assist in identifying effective teachers according to candidates' responses made to prepared questions during the interview.

TPI: The Gallup Teacher Perceiver is a structured interview that consists of a set of open-ended items. It is based on Gallup's research on what are believed to be the characteristics that make the best teachers. The interviews may be given face to face or over the telephone.

SPSS: The Statistical Packages for the Social Sciences is a computer program used for survey statistical analysis.

NDDPI: The North Dakota Department of Public Instruction

ANOVA: An analysis of variance provides a statistical test of whether or not the means of several groups are all equal, and therefore generalizes *t*-tests to more than two groups. Doing multiple two-sample t-tests would result in an increased chance of committing a type I error. For this reason, ANOVAs are useful in comparing two, three, or more means.

GPA: Grade Point Average

Limitations

1. This study was limited to the extent the participating principals understood the professional and personal teacher characteristics and teacher hiring methods questioned on the survey instrument.
2. This study was limited to the extent the participating principals completed the survey completely, accurately, and honestly.

Delimitations

1. This study was restricted to principals from North Dakota public school districts. Therefore, the results may not be generalized to principals or assistant principals responsible for hiring outside of North Dakota.
2. To manage and effectively analyze the collected date, the survey instrument did not collect information from open-ended responses.

Assumptions

1. Principals are involved in the teacher hiring process.
2. The principals' understanding of the defined terms of this study is compatible with the researcher's understanding of the defined terms.
3. The principals in this study responded to the survey honestly.
4. Principals have an interest in the teacher hiring process.
5. Electronic surveys are convenient instruments and their use could generate higher response rates.

Organization of Study

This study is organized into five chapters. Chapter I included the introduction, problem statement, purpose of the study, significance of the study, research questions,

definitions of terms, and limitations and delimitations of the study. Chapter II is a review of related literature on teacher effectiveness and the hiring process. The description of the study participants, the survey used, and the procedures used to collect and analyze the data are presented in Chapter III. Chapter IV is comprised of the study results and findings. Chapter V contains the summary and discussion along with conclusions and recommendations of this study.

CHAPTER II

LITERATURE REVIEW

Hiring effective teachers to ensure overall school success is one of the most important responsibilities of a principal (Mason & Schroeder, 2010). Additionally, student learning must be the center of all hiring decisions as all students deserve to have the very best teacher possible (Behrstock & Coggshall, 2009; Stronge & Hindman, 2006). Characteristics principals may be looking for when hiring teachers (Behrstock & Coggshall, 2009; Mason & Schroeder, 2010) and the teaching characteristics proven to increase student achievement (Danielson, 2007; Darling-Hammond & Youngs, 2002; Goodwin, 2008; Marzano, 2007; Marzano et al., 2001; National Council on Teacher Quality, n.d.; Stronge & Hindman, 2006) have been documented. Behrstock and Coggshall (2009) noted, "perhaps the most important strategy related to teacher hiring is being able to identify an effective candidate for the position" (p. 16).

Definitions of Teacher Effectiveness

There has been much debate on the definition of teacher effectiveness (Lauer et al., 2005). Several research projects have been conducted in recent years for the purpose of defining an effective teacher (Danielson, 2007; Danielson & McGreal, 2000; Little et al., 2009; Measures of Effective Teaching Project, 2009). As a result, practitioners have developed models and checklists to define specific measurable behaviors that correlate to effective teaching based on student achievement (McEwan, 2002).

Marzano et al. (2001) defined effective teaching according to student academic achievement and a set of instructional strategies linked to positive student academic growth. Further, these researchers examined decades of empirical research that resulted in the identification of nine broad effective teaching strategies associated with positive effects on student learning. When implemented by teachers, the research-based instructional strategies were identified as having a high likelihood of boosting student achievement (Marzano et al., 2001). Students taught by teachers who use the nine instructional strategies compared to students taught by teachers who do not use the nine instructional strategies and the corresponding percentile gains are listed below (Marzano, 2003; Marzano et al., 2001).

1. Identifying similarities and differences- 45 percentile gain
2. Summarizing and note-taking- 34 percentile gain
3. Reinforcing effort and providing recognition- 29 percentile gain
4. Homework and practice- 28 percentile gain
5. Nonlinguistic representations- 27 percentile gain
6. Cooperative learning- 27 percentile gain
7. Setting objectives and providing feedback- 23 percentile gain
8. Generating and testing hypotheses- 23 percentile gain
9. Cues, questions, and advance organizers- 22 percentile gain

In his later work, Marzano (2003) defined the effective teacher according to three teacher-level factors – instructional strategies, classroom management, and classroom curriculum design – and the effect each factor has on student achievement. Marzano (2003) found that students taught by the most effective teachers achieve more

academically in one year than expected while students taught by the least effective teachers achieve less in a year than expected (p. 73). For example, in a study conducted by Nye, Konstantopoulos, & Hedges (as cited in Marzano, 2007, p. 2), students taught by effective teachers performed better than students taught by an ineffective teacher by 14 percentile points in reading and 18 percentile points in math.

Professional teacher characteristics connected to positive student achievement include: classroom management and organization, planning and organizing for instruction, implementing instruction, and monitoring student progress and potential (Stronge, 2007). Personal characteristics are also used to define teacher effectiveness and include: caring and concern for students, fairness and respect, attitude toward the teaching profession, interactions with students, promotion of enthusiasm and motivation for learning, reflective practice of teaching, dedication to teaching, and verbal ability (Stronge, 2007).

The *Framework for Teaching* by Danielson (2007) was documented through empirical studies and theoretical research as enhancing student achievement academically and socially. Danielson's framework defines the characteristics and responsibilities of effective teachers and is organized into four domains of teaching responsibility: planning and preparation, classroom environment, instruction, and professional responsibilities and provides a definition and foundation for determining characteristics, skills, and knowledge sets of effective teachers. Teachers can utilize the framework to reflect and assess their own teaching, with the goal of improving student learning (Danielson, 2007).

A key determinant of teacher effectiveness is student academic achievement, but teacher effectiveness is more than just the progress students make on standardized

achievement tests (Little et al., 2009). For example, teachers impact the social success of students, but students' learning of social skills is not measured on standardized achievement tests (Little et al., 2009). Also, student test data are not available for non-tested subjects and several factors (peers, family, home environment, poverty, school resources, school climate, other teachers) besides the teacher contribute to how well students learn (Little et al., 2009). Further, five-point benchmarks of teacher effectiveness beyond student academic achievement include:

1. Effective teachers have high expectations for all students and help students learn as measured by value-added or growth measures.
2. Effective teachers contribute to positive outcomes for students in not only the academics, but also their social skills and attitudes about learning.
3. Effective teachers utilize a wide-range of resources, plan and implement engaging lessons, monitor the progress students are making, and differentiate instruction as needed.
4. Effective teachers contribute to the overall classroom and school culture.
5. Effective teachers work collaboratively with their peers, administrators, parents, and other education professionals to guarantee to success of all students. (Little et al., 2009, p. 3)

Marzano's (2007) *The Art and Science of Teaching: A Comprehensive Framework for Effective Instruction* is a model for defining effective teaching that balances the use of research-based instructional strategies with knowing when and with whom to use the strategies. The science of effective teaching provides teachers with instructional strategies that are most likely to work well with students (Marzano, 2007).

Further, knowing when and with whom to use the appropriate research-based instructional strategies is the art of teaching. Marzano (2007) argues that an effective teacher utilizes instructional strategies grounded in research with the appropriate students at the right time, and indeed "there is not a formula for effective teaching" (p. 4).

The federal government has also worked to define and measure the qualities of an effective teacher. The No Child Left Behind (NCLB) Act of 2001, the current reauthorization of the Elementary and Secondary Education Act, has advanced the teacher quality movement by demanding teachers be highly qualified as measured by a determined level of education and certification (United States Department of Education, 2002). NCLB defines an effective teacher by the coursework taken and college degree received in the area they are teaching. Only teachers meeting the coursework and college degree requirements to be certified and licensed to teach in individual states are considered by the law to be "highly qualified" (United States Department of Education, 2002).

Impact of Effective Teachers

In recent years, effective teaching has centered on accountability and value-added analysis to determine whether an educator is effective or not (DeArmond, Gross, & Goldhaber, 2010; Stronge, 2007). Regardless of what generation of students or education movement, there is evidence from empirical studies to suggest a relationship between effective teachers and student academic performance (Rockoff, 2004; Stronge, Tucker, & Hindman, 2004). In other words, "the growing body of research on teacher effectiveness has reinforced the notion that characteristics and behaviors matter in teaching, in terms of student achievement as well as other desirable outcomes" (Stronge, 2007, p. x).

Effective teachers not only make an immediate difference on students, but their influence affects students over a period of years (Pollock, 2007; Rivkin, Hanushek, & Kain, 2005; Tucker & Stronge, 2005; Wright, Horn, & Sanders, 1997). Sander's study (as cited in Tucker & Stronge, 2005) found a 52-percentile difference in 3rd grade students' math scores when taught by high-performing teachers instead of low-performing teachers. Sanders (as cited in Tucker & Stronge, 2005) also discovered when children, beginning in 3rd grade, were placed with three high-performing teachers in a row, they scored on average at the 96th percentile on Tennessee's statewide mathematics assessment at the end of 5th grade. When students with comparable achievement histories starting in 3rd grade were placed with three low-performing teachers in a row, their average scores on the same mathematics assessment was at the 44th percentile (pp. 3-4).

Teachers influence student test scores more than any other factor (Reichardt, 2003; Rivkin et al., 2005; Sanders & Horn, 1994; Wright et al., 1997). Teachers are the foremost factor in determining student learning (Guarino, Santibanez, & Daley, 2006; Harris, 2006; Marzano, 2003; Reeves, 2006; Reeves, 2009; Rutledge, Harris, & Ingle, 2010; Schmoker, 2006; Stronge & Hindman, 2003). However, Little et al. (2009) noted that teachers are crucial not only to the enhancement of student achievement, but also to the promotion of students' social outcomes such as self-efficacy and cooperative behavior. Furthermore, effective teachers contribute to the development of the overall school that values "diversity and civic-mindedness" (p. 7).

Professional Characteristics of Effective Teachers

Classroom Management and Organization

Classroom management and organization pertains to the ability of the teacher to effectively manage classroom routines and procedures, the physical space of the classroom, and student behavior (Danielson, 2007). Further, effective teachers establish a positive, safe, and orderly classroom environment, and "expertly manage and organize the classroom and expect their students to contribute in a positive and productive manner" (Stronge et al., 2004, p. 64).

Classroom management. Classroom management skills are connected to teacher effectiveness in the classroom and with students (McEwan, 2002). Effective teachers strive to establish classroom routines and procedures before instruction, as the best instructional strategies are of no value in a chaotic learning environment (Danielson, 2007). Effective teachers facilitate seamless transitions between lessons and activities, multitask, and demonstrate "with-it-ness" (Marzano, 2003) while anticipating potential problems (Stronge, 2007). Effective classroom management ensures students are actively learning (Stronge et al., 2004) and involves the teacher using proximity and movement around the classroom to encourage student attention on learning (Stronge, 2007).

Classroom organization. Effective teachers with classroom organization skills handle routine tasks successfully, utilize classroom space efficiently, and prepare materials and resources ahead of time so they are ready for use (Stronge, 2007, p. 111). Additionally, they plan in advance and are prepared for unforeseen challenges or disruptions in the day (Stronge et al., 2004). Effective teachers arrange the classroom for

students to move about the classroom smoothly and safely in order to access all learning activities (Danielson, 2007).

Expectations for student behavior/discipline of students. A focus on teaching and learning is difficult in a classroom with student misbehavior and lack of student engagement (Danielson, 2007; McEwan, 2002). Little effective learning will occur in environments where students do not feel safe and secure (Marzano, 2003). Effective teachers appropriately manage student behaviors (Stronge, 2007) and respond appropriately to student misbehavior without becoming emotionally involved (Marzano, 2003).

Effective teachers appropriately interact with students to encourage attention and participation (Danielson, 2007; Stronge, 2007). Effective teachers strive to establish and implement classroom rules fairly and consistently, reinforce positive behavior expectations, and use appropriate discipline measures (Marzano, 2007; Whitaker, 2004). Effective teachers also use specific strategies to reinforce positive student behavior and provide consequences for negative student behavior (Marzano, 2003).

Planning and Organization for Instruction

The elements of teacher effectiveness in the realm of planning and organization for instruction include: focus on instruction, maximizing instructional time, expecting students to achieve, and planning and preparing for instruction (Danielson, 2007; Stronge, 2007, p. 112). Effective teachers strive to link classroom student learning to the real world (Stronge, 2007) and help the students derive personal meaning out of new information (Marzano, 2007). Whitaker (2004) noted that successful teachers have high expectations for student achievement. Shellard and Protheroe (as cited in Stronge et

al., 2004) reported that effective teachers take the necessary time and make sure to develop instructional plans and materials to meet students' needs.

Focusing on instruction. While focusing on the needs of the students, the teacher must plan appropriate lessons for the time allotted, standards and learning objectives mandated, and resources available to them (Stronge, 2007). Effective teachers maintain an intense focus so they can refine their lessons' activities to match the learning goals and individual needs of their students (Peart & Campbell, 1999). Teachers plan not only for the day, but also for the week, unit, term, and year to successfully present the essential curriculum in a sequential and timely manner (Stronge et al., 2004).

Maximizing instructional time. Effective teachers know the importance of spending time wisely (Stronge, 2007). Effective teachers follow a consistent schedule, limit disruptions and distractions, maintain momentum within and across lessons, handle administrative tasks quickly and efficiently, and prepare materials in advance (Stronge, 2007, p. 112). Despite interruptions and time spent on tasks unrelated to instruction, Stronge et al. (2004) indicated that effective teachers maximize the amount of time spent on instruction. Effective teachers design lessons that are structured with a beginning, middle, and end with realistic time allocations (Danielson, 2007).

Expecting students to achieve. Effective teachers set high expectations for all students (Stronge et al., 2004). Effective teachers believe their students can learn and expect them to reach goals for learning no matter the individual abilities (Goodwin, 2008; McEwan, 2002). Effective teachers not only have high expectations of their students, but also have even higher expectations for themselves as they strive to do what is best for students (Whitaker, 2004). Further, the teachers must communicate these high

expectations to all students as well as provide support for students to achieve them. Effective teachers also exhibit confidence in their students' abilities and convey a message encouraging students to do their best (Peart & Campbell, 1999).

Planning and preparing for instruction. Effective teachers plan instruction that aligns with district, state, and national standards and curriculum (Stronge, 2007). Making a distinction between learning goals and learning activities and assignments is important for teachers (Marzano, 2007). The effective teacher has mastery of the content and understands the important concepts to be taught (Goodwin, 2008). In a practical sense, effective teachers should ensure that individual needs of students are met, student understanding is assessed, content is organized for effective instructional delivery, lessons are connected to learning objectives and goals, and resources are utilized to enhance instruction (Danielson, 2007; Stronge et al., 2004).

Implementing Instruction

Instructional strategies. Teachers should implement instruction only after they have a plan for instruction (Stronge, 2007). Effective teachers have knowledge of several research-based instructional strategies and effective questioning techniques to engage students, and appropriately utilize pedagogy to reach a wide variety of student needs (Marzano, 2007). Inquiry-based problems, hands-on learning activities, and critical thinking exercises are strategies of effective instruction (Stronge, 2007). An effective teacher has the ability to employ the various research-based instructional strategies and techniques (Marzano et al., 2001; Miller, 2003).

Communication of content and expectations. Effective teachers clearly communicate expectations, provide meaningful feedback, and encourage students to do

their best through various verbal and written means. One-way communication from teacher to students is an important part of teaching (Stronge et al., 2004). For instance, writing the learning objectives of the lesson is one-way communication. Presenting facts and information to students is another example of one-way communication. Stronge et al. (2004) suggested that effective teachers incorporate two-way communication (student to student and student to teacher). Two-way communication provides students with the opportunity to express their thoughts and develop a deeper understanding of the content that teachers expect their students to understand, and provides encouragement and support resulting in students achieving at higher levels (Marzano, 2007; Stronge, 2007).

Instructional complexity. Effective teachers know that teaching is complex (Stronge et al., 2004). Since each student has unique needs and requires differentiated instruction (Stronge et al., 2004), teachers need to have sufficient knowledge of subject matter and pedagogy to productively deal with the complexities of teaching (Stronge, 2007). The effective teacher knows higher-order thinking skills are critical and reading skills are essential for student achievement (Stronge, 2007). Demmon-Berger and Marzano et al. (as cited in Stronge, 2007) reported that effective teachers are concerned with students learning for a deep understanding instead of memorizing information.

Questioning strategies. The retrieval of prior knowledge is critical for learning of all types, and the utilization of questioning can help students relate what they already know to new knowledge, a critical skill in learning (Marzano et al., 2001). Questioning also enhances the educational interaction between teacher and students (Stronge, 2007). Good teachers structure the questions at varying levels to encourage students to think at different levels (Danielson, 2007). Effective teachers utilize appropriate "wait time"

which is the right amount of time given after a question is posed for students to respond (Marzano, 2003; McEwan, 2002; Stronge, 2007; Stronge et al., 2004).

Student engagement. Effective teachers keep students engaged in learning by using a variety of strategies and techniques (Danielson, 2007; Stronge, 2007). Principals observing effective teaching look for these activities in students engaging in the lesson: participating, discussing, asking questions, explaining concepts, and solving problems (Johnson, Uline, & Perez, 2011). It is the responsibility of the teacher to ensure students are engaged, and Marzano (2007) suggested five areas for how teachers might increase student engagement:

1. High energy: students actively involved physically and teachers are enthusiastic and dynamic in their teaching.
2. Missing information: pertains to curiosity with what is unknown and human beings wanting to be engaged in activities such as puzzles and games which ask for missing information.
3. Self-system: has to do with humans and what we decide to attend to based on our interests and perception of our abilities.
4. Mild pressure: people under high anxiety perform poorly; however, pressure exerted at the right level can have a positive influence on learning.
5. Mild controversy and competition: debate with a controversial issue can increase interest while competition designed fairly and positively can encourage students to actively engage in classroom activities.

Monitoring Student Progress and Potential

Effective teachers constantly monitor student progress and potential, while responding to a variety of student needs and abilities (Stronge, 2007; Stronge et al., 2004). Teachers monitor student progress and understanding through a variety of formal and informal means including homework, practice, meaningful feedback, and assessments (Marzano, 2003; Marzano et al., 2001; Stronge, 2007).

Homework. Although sometimes controversial, homework remains a crucial part of effective teaching when used appropriately (Marzano et al., 2001; Stronge, 2007). Effective teachers use homework as independent practice to reinforce and extend what was modeled and taught during the school day (Mangione, 2008). Effective teachers use homework to provide meaningful feedback to students (Marzano & Pickering, 2007). Further, proper teacher use of homework includes providing specific feedback on all assigned homework and assigning homework with the purpose of students practicing the skills that were recently taught in the classroom. Finally, effective teachers assign homework appropriate for the students' age (Marzano & Pickering, 2007). For instance, ten minutes per grade level, i.e., a fifth grader would be assigned 50 minutes.

Monitoring student progress. Effective teachers know students need various opportunities to practice and process new information to gain a deep understanding (Marzano, 2007). Without additional practice and opportunities to process new knowledge, knowledge attained by students might wane and eventually be lost (Marzano, 2007). It is imperative that teachers monitor the progress students have made in mastery of new skills and content (Marzano et al., 2001). Marzano (2007) provided several action steps for teachers to provide students with practice in processing new knowledge:

1. Provide students with tasks to examine similarities and differences.
2. Help students identify errors in thinking.
3. Provide opportunities for students to practice skills, strategies, and processes.
4. Incorporate cooperative learning.
5. Assign purposeful homework.
6. Have students systematically revise their academic notebooks (pp. 71-85).

Successful teachers provide students with meaningful feedback on their work (Stronge, 2007). Effective feedback should be accurate, specific, constructive, timely, and substantive (Danielson, 2007, p. 87). The feedback helps the students know how they are doing compared to what is expected in the classroom by the teacher. For the teacher, the process of feedback provides a means to interact with students on progress students are making in learning. Timely instructional feedback could help students correct their misconceptions or misunderstandings and confirm students' grasp of the content or skill (Stronge et al., 2004).

Responding to student needs and abilities. Effective teachers respond to a wide variety of student needs and recognize individual student and group differences (Tomlinson & Javius, 2012). Effective teachers also use data to respond to individual student needs and abilities to meet the learning needs of a broad range of student abilities and relate to students of different cultural backgrounds (Stronge, 2007). Instruction should be differentiated based on the needs of the individual students and groups (Stronge et al., 2004). Effective teachers know when to provide one-on-one instruction, include cooperative learning, or teach to the whole group (Tomlinson & Javius, 2012).

Assessments are an integral part of instruction (Danielson, 2007). Effective teachers use formative and summative assessments to reflect on the effectiveness of their instruction and student learning (Stronge et al., 2004). Formative assessments offer information to the teacher on progress students are making during the instructional process while summative assessments measure student learning at the end of the learning unit (Stronge et al., 2004). The effective teacher uses the information learned from the assessments to adjust instruction and to meet the needs of the students. Assessments offer invaluable data to help teachers meet individual student needs that could result in higher achievement (Stronge, 2007).

In summary, Stronge (2007) affirmed that effective teachers possess certain professional characteristics that correlate to improved student achievement and success. Effective teachers manage and organize their classrooms to run smoothly and efficiently. Additionally, effective teachers plan instruction carefully to maximize time for lessons and activities. Also, effective teachers implement well-designed lessons by employing a variety of research-based instructional strategies and techniques. Finally, effective teachers monitor students' progress and make the necessary adjustments to meet the individual needs of students.

Personal Characteristics of Effective Teachers

Caring and Concern for Students

Effective teachers care about their students and make sure the students know they care (Goodwin, 2008). These caring teachers are gentle, understanding, nurturing, encouraging, and warm (Stronge, 2007). Caring teachers also know their students individually, demonstrate understanding and patience, accommodate students' needs, and

respect each student as a person (Stronge et al., 2004; Stronge, 2007). Caring teachers, according to Stronge (2007), listen to students to show they are concerned about students' lives beyond the classroom.

Caring is a personal teaching trait desired by students in their teachers and associated with student success in schools (Stronge, 2007). Students reported that the trait of caring by their teachers was a factor that made a positive difference in their school experience (McEwan, 2002). Students have a better chance of succeeding academically if their teachers demonstrate caring and mutual respect for them (Peart & Campbell, 1999; Stronge, 2007). Students who believe their teachers care about them try harder to succeed academically and socially in school (Wenzel, 1997). Additionally, "Students care about great teachers because they know great teachers care about them" (Whitaker, 2004, p. 122).

Fairness and Respect

An effective teacher displays by language, actions, and modeling a high level of fairness and respect (Danielson, 2007; Stronge, 2007). An essential skill of teaching is managing relationships with students in a fair and respectful manner (Danielson, 2007). Adults tend to negatively remember former teachers who failed to treat them with fairness and respect. Students who feel respected by their teachers work harder at school and more readily take responsibility for their learning and actions (McEwan, 2002). Students from elementary to high school age in interviews and surveys consistently identify fairness and respect as an important teacher characteristic (Stronge, 2007).

A positive learning environment is one of the key characteristics of high-achieving and equity-increasing schools (Kyriakides & Creemers, 2011). Teachers able

to exhibit fairness and respect foster a positive teaching and learning environment (Danielson, 2007; Stronge, 2007). Effective teachers provide students with examples of treating each other with fairness and respect regarding race, ethnicity, gender, and individual differences (Peart & Campbell, 1999). Students appreciate when teachers respond to them fairly and respectfully at all levels of school (Stronge, 2007). Further, an effective teacher demonstrates an appropriate level of fairness and respect when dealing with not only students, but also the parents. Effective teachers show respect to parents by acknowledging them as partners in the education of their children and recognize the importance of involving parents in the students' education (Stronge et al., 2004).

Attitude Toward the Teaching Profession

Lack of a positive attitude was a key reason cited by McCarthy, Lambert, O'Donnell, and Melendres (2009) in their study for teacher burnout. To avoid burnout, effective teachers are realistic about the demanding job of teaching and are positive about the difference they make in the lives of students (Stronge et al., 2004). Teachers with positive attitudes impact students academically and socially (Stronge, 2007) as well as the teachers' attitudes about teaching having an impact on the climate of the school (Stronge et al., 2004). A positive attitude results in teachers working together to serve on committees, supporting each other, and assuming leadership roles in the school (Stronge, et al., 2004). Teachers with positive attitudes work collaboratively for the benefit of student achievement (DuFour, DuFour, Eaker, & Many, 2010).

Interactions With Students

Teachers relating positively, connecting to students effectively, and displaying care through various interactions with students foster a learning environment and culture

conducive to advancing student achievement (Goodwin, 2010). In addition to the classroom, teachers can interact with students outside the classroom by attending sporting events and fine arts activities, and taking an interest in students' hobbies and interests (Stronge, 2007). Teachers taking the time to talk to students about their lives is critical since it signifies to the student that the teacher cares about them as not only a student, but also as a person (Blomberg, 2011). Additionally, teachers who connect successfully with students also include humor and respectful joking with their students (McEwan, 2002; Stronge, 2007; Stronge et al., 2004). Teachers should interact in friendly ways, provide positive nonverbal cues, and pay equal attention to all students (Marzano, 2007).

Promotion of Enthusiasm and Motivation for Learning

Effective educators use enthusiasm in their teaching to motivate students to do their best (Stronge et al., 2004). For example, teachers of children who are motivated to read are more likely to reach their full potential (Gambrell, 2011). Further, a 2010 International Student Assessment study of schools in 64 countries found a close link between students' enthusiasm for reading and reading achievement. McEwan (2002) argued that teachers motivate students in the following three ways: through their personal teaching efficacy, through high expectations for student behavior, and through high expectations for student academics. Teachers who exhibit enthusiasm and motivation promote positive relationships with students and encourage students to be interested in learning (Stronge et al., 2004).

Reflective Practice of Teaching

Reflective teachers know their strengths and weaknesses, use reflection to improve their teaching, set high expectations for personal performance, and demonstrate

high competence (Stronge, 2007). Through reflection, effective teachers analyze their teaching and look inside themselves for ways in which they can improve (Stronge, 2007). Reflective teachers have a personal goal of improving themselves as a person and educator (Danielson, 2007). Further, reflective teachers accurately assess their teaching and make conscious decisions for future improvement. Reflective teachers make adjustments and improvements that play a prominent role in teacher effectiveness and student achievement (Stronge, 2007). Through reflection, effective teachers assess their progress toward goals and learn from experience (Stronge et al., 2004).

Dedication to Teaching

Dedicated teachers spend time outside of school preparing for teaching (Stronge, 2007). Bratton (as cited in Stronge, 2007) stated that effective teachers believe the extra time is well worth the effort for student achievement. Furthermore, effective teachers are dedicated to investing in their own professional development and growth by taking classes, attending conferences and workshops (Stronge, 2007). When a student is having difficulty learning, an effective teacher persists and seeks methods for helping that student succeed (Danielson, 2007). Most importantly, teachers who are dedicated to teaching hold their students and themselves responsible for student learning without making excuses (Allington, 2002).

Verbal Ability

High test scores on verbal tests have been associated with teacher effectiveness (Stronge et al., 2004). The verbal ability of teachers is highly correlated with positive student achievement (Boyd, Grossman, Lankford, Loeb, & Wyckoff, 2006; Goodwin, 2010; Harris, 2006; Lauer et al., 2005). Verbal ability is a characteristic of

effective teachers because it enables teachers to clearly communicate key concepts and skills to students (Darling-Hammond & Youngs, 2002; Rotherham, Mikuta, & Freeland, 2008). Teachers need to provide students with clear verbal directions and explanations for enhanced understanding and engagement in learning (Danielson, 2007). A teacher's ability to verbally communicate clearly also helps the teacher positively encourage and support students (Stronge et al., 2004). Additionally, effective communication by the teacher is pivotal to provide the parents of students' progress and other information related to course activities or general instructional programs (Danielson, 2007).

In summary, an effective teacher possesses certain personal characteristics linked with student achievement Stronge (2007). For example, effective teachers show care and concern for their students and demonstrate fairness and respect by their actions and interactions with students. Effective teachers also develop positive relationships with students, colleagues and parents. Additionally, effective teachers use motivation and enthusiasm to encourage students to learn and are committed to improving themselves and students with a positive attitude. Effective teachers should also possess good verbal skills since clear communication is critical for expressing essential skills and concepts and interacting positively with students. Finally, effective teachers are reflective teachers who assess their strengths and weaknesses with the purpose of improving their teaching.

Other Teacher Effectiveness Factors

Pre-service Training, Certification, and Experience

Teacher preparation programming, pedagogical training, academic background, education coursework and content knowledge are associated with teacher effectiveness (Baker & Cooper, 2005; Darling-Hammond & Youngs, 2002; Educational Testing

Service, 2004; Goodwin, 2008; Haycock, 2004; Lauer et al., 2005; Rutledge et al., 2010; Tucker & Stronge, 2005; Whitehurst, 2002). Pre-service teachers need to be provided with extensive training to prepare them to handle the rigors of teaching and help their students do well on achievement tests (Darling-Hammond, 2008; Miller, 2003). It is also important for pre-service teachers to understand how students learn, what students need to be taught, and the methods for helping students learn when the aspiring teachers receive training in programs designed for preparing future teachers (Stronge, 2007).

Various studies suggest that teacher certification is critical for student learning gains (Harris, 2006; Marzano & Waters, 2009; Stronge et al., 2004; Tucker & Stronge, 2005). Darling-Hammond and Youngs (2002) stressed the importance of teacher certification to ensure college graduates in teacher education can demonstrate the high-level academic background needed to support student achievement. Boyd et al. (2007) found in their study that the evidence was insufficient to draw the conclusion that teacher certification requirements were directly related to positively impacting student learning. Kane, Rockoff, and Staiger (2008) found that the performance of the teacher in the classroom during the first two years was a better predictor of teacher effectiveness than the certificate they held.

Some research suggests that teacher experience does make a positive difference in student achievement while other studies have shown that teaching experience makes a difference only after a certain number of years. For instance, Stronge (2007) indicated teachers with experience demonstrate better planning skills, tend to know the needs of their students, are better at organizing and handling difficult situations, do more in less time, and have higher achieving students than novice teachers.

Teacher experience is associated with positive student achievement because the longer teachers teach, the more confident they become while learning on the job (Ingle & Rutledge, 2010; Rutledge et al., 2010). Rockoff (2004) found teaching experience to make a significant difference in students' reading test scores In addition, research by Kane et al., (2008) showed that teacher effectiveness increases with experience. Kane's research estimated the achievement level of students taught by a first year teacher to be ".06 and .03 standard deviations lower in math and reading, respectively, as compared to students assigned to those same teachers after they have gained two years of teaching experience" (p. 619).

On the other hand, the experience factor appears to have a limit (DeArmond et al., 2010: Lauer et al., 2005). The difference between inexperienced and experienced teachers seems to lessen after five or more years of teaching (Boyd et al., 2006; Staiger & Rockoff, 2010; Tucker & Stronge, 2005). According to various studies (Rivkin et al., 2005; Rockoff, 2004; Sanders & Horn, 1994) student achievement improves during a teacher's first three to five years, but no additional gains are found after five years.

Professionalism

According to Danielson (2007), a teacher showing professionalism displays integrity and ethical conduct, serves students, advocates for students, makes appropriate decisions, and complies with school and district regulations. Stronge (2007, pp. 126-127) provided a list of key qualities associated with teacher professionalism:

1. Practices honest communication with colleagues and administration
2. Initiates communication and regularly communicates with parents
3. Maintains accurate records and submits required reports accurately and timely

4. Reflects on teaching
5. Can discuss teaching philosophy
6. Is a true team player, works collaboratively, and treats colleagues with respect and dignity
7. Attends and participates fully in school staff and committee meetings
8. Focuses primarily on students
9. Implements and supports school and district initiatives, policies, and goals
10. Volunteers
11. Is involved in the community
12. Grows professionally while maintaining current teaching certification
13. Communicates effectively for the intended audience

Cognitive Ability

The most important factor for differences in teacher effectiveness is their general cognitive ability (Whitehurst, 2002). There is research, although limited, to conclude that teachers with higher cognitive ability helped their students grow academically (Jacob, 2007). Studies by Harris and Rutledge (2007) showed cognitive ability to be related to teacher effectiveness because an adequate level of cognitive ability makes a difference in helping teachers manage the duties, tasks, and expectations as they work effectively with students. Rutledge et al. (2010) noted that cognitive ability of teachers could help improve student achievement. Cognitive ability is an important characteristic of effective teachers since the teachers' ACT scores has more influence on student achievement than factors such as class size and teaching experience (Goodwin, 2010).

Teacher Hiring Policy

Hiring policy development and implementation is crucial for the operation of a successful school district (Cooper, Fusareli, & Randall, 2004). Through a hiring policy, school districts can be sure to comply with the many federal and state laws when hiring teachers (Thune & Martin, 2010). School boards are granted power by states to adopt policies and procedures for operating and governing schools by the policies they develop (Hess, 2010; Sell, 2005) and school district administrators are typically charged with the task of establishing the administrative procedures necessary for executing the hiring policy (Norton, 2008).

Teacher Hiring Authority

North Dakota law grants the school board of each school district authority to contract and employ school district teachers (North Dakota Century Code, 2011a). Through school board policy, however, the school board can delegate the power to hire teachers to the superintendent or principal (Thune & Martin, 2010).

Principals and Teacher Hiring

Relatively little research exists on principals and teacher hiring (Balter & Duncombe, 2005; Boody, 2009; Liu & Johnson, 2006; Mason & Schroeder, 2010). Principals potentially hold a key position in the teacher hiring process for their schools (Baker & Cooper, 2005; Seyfarth, 2008) and principals could promote student achievement by hiring and maintaining a stable teaching staff (Grissom, 2011; Jacob, 2011). However, the extent of principal involvement in hiring is generally limited to interviewing (National Council on Teacher Quality, 2010). Instead, human resource staff

and central administrative staff make the recommendation to the school board for final approval (National Council on Teacher Quality, 2010).

School districts must have the goal of providing high quality teachers for every student (Guarino et al., 2006). Principals know that an effective school needs effective teachers (Whitaker, 2003) and that teachers are crucial for student achievement (Kersten, 2008; Liu & Johnson, 2006; Rotherham et al., 2008; Seyfarth, 2008). Consequently, principals need to be given more authority to be able to decide who teaches in their buildings (Mason & Schroeder, 2010; National Council on Teacher Quality, 2010). The National Council on Teacher Quality (2010) argued that principals need more authority to interview and hire teachers for their schools. Maranto and Shuls' (2011) study reported the success of Knowledge is Power Program (KIPP) charter schools was due to principals having more freedom and control of staffing decisions than principals from typical public schools.

In a qualitative study of principals and teachers on the recruitment and interview process for their schools, DeArmond et al. (2010) found that the respondents preferred site-based hiring rather than centralized teacher assignments. However, the respondents felt they needed better training in the area of teacher hiring and selection. According to Kersten (2008), principals need to have a background and understanding in best practices for the teacher hiring process. Furthermore, principals need training in district policies and state and federal laws related to teacher hiring (Norton, 2008; Stronge & Hindman, 2006) as asking inappropriate questions can lead to litigation (Thune & Martin, 2010).

The teacher hiring process is complex, but principals can find effective teachers for their schools by understanding and knowing the factors of the teacher hiring process

and how to successfully recruit, screen, interview, and select the most effective teachers (Kersten, 2008; Peterson, 2002). Leaders should not settle for a candidate just to fill a position. If the applicant is not a proper fit for the organization, Collins (2001) and Johnson and Birkeland (2003) suggested not consummating the hire.

The hiring process from start to finish is time-consuming, labor intensive, and probably the most important task of a principal (Mason & Schroeder, 2010), yet effective principals know their schools need quality staff (Grissom, 2011). Depending on school district policies and procedures, the responsibility for the practice of hiring teachers can vary. When principals have the authority and training in the hiring process, they have a better opportunity to select and hire high quality and effective teachers needed for their students and schools (Kersten, 2008; National Council on Teacher Quality, 2010).

Gender of Principals

Does gender matter in the role of the principal as an instructional leader and administrative manager? Do male and female principals lead and perform their jobs differently? A review of the literature has found differences between female and male principals and how they view and do their jobs. Kruger's (2008) research found:

> In general, research into leadership styles has found that women are a bit stronger in relationship-oriented supportive styles, while men score higher on instructive and controlling styles. More men than women judged themselves to be competent in financial and administrative areas. Women are stronger educational leaders than their male colleagues. They carry out more educational activities and spend more time on educational matters than men. Women are more focused on instruction and education, on the school goals, they are higher on creating a

> positive culture and an orderly learning atmosphere, they have a stronger classroom orientation, they reward teachers more often and they create more professional development opportunities for teachers. Their male counterparts spend more time and attention on administrative tasks and external contacts. (pp. 162-163)

What are the different characteristics of male and female leaders? Reed's (2012) study found that women leaders have been described as being able to show compassion and emotion as part of their leadership style. Moreover, Reed's (2012) study found that female leaders have been described as being able to foster relationships while working through difficult challenges associated with change. Finally, Reed (2012) found women tend to view power differently than men. Instead of having power for oneself, women tend to disperse the power throughout the organization (Reed, 2012).

Kruger (2008) indicated that females are viewed less favorably than males in the leadership role. According to Kruger (2008) women are said to be "dependent, conformist, cooperative, passive, emotional, uncertain of themselves, kind, helpful, understanding, sensitive, and weak, to name just a few of these preconceptions. Men are said to be independent, competitive, active, rational, sure of themselves, aggressive, dominant, and strong" (pp. 163-164).

The way men and women are perceived as leaders can impact the way they actually behave (Kruger, 2008). When women behave in a male leadership style manner, they are judged less favorably, but men exhibiting a female leadership style were not judged less favorably (Kruger, 2008). Women appear to have to work twice as hard to be accepted in their role as principal (Kruger, 2008). Instead of focusing on whether one

gender is better than the other in the role of educational leader, Kruger (2008) argued for an embracement of the differences between the genders and how we could achieve more by taking advantage of how men and women can "complement each other in their styles of leadership and preferences for particular leadership tasks" (p. 166).

Other Factors Related to Teacher Hiring

Rural school districts with lower student enrollments face challenges in finding and retaining good teachers (Arnold, 2004; Barley, 2008). North Dakota is an example of a rural state with mostly rural school districts and lower student enrollments. Depending on high school enrollment, North Dakota classifies a school district as Class A or Class B. The North Dakota High School Activities Association defines a Class A school district as having an enrollment of 325 or more students and Class B districts having enrollments of less than 325 students. Of North Dakota's 149 K-12 public school districts, 13 are Class A districts (North Dakota Department of Public Instruction, 2011).

Unlike large urban school districts with human resource staff responsible for recruiting, screening, and determining teacher candidates for the hiring pool, small rural school districts face significant human resource limitations while recruiting and hiring teachers (Arnold, 2004; Balter & Duncombe, 2008; Mason & Schroeder, 2010; Norton, 2008). In smaller rural school districts, there may be no central office human resource staff besides the superintendent, and the teacher hiring process may be the responsibility of one or a few people (Canales, Tejeda-Delgado, & Slate, 2010; Mason & Schroeder, 2010; Norton, 2008).

The number of central office staff responsible for teacher hiring in districts is more important for districts successfully recruiting and attracting quality teacher

candidates than demographic characteristics of the district such as poverty, ethnicity, and location (Opfer, 2011). Certain school district policies and procedures can also hinder teacher hiring in schools. For instance, schools can lose out on quality teachers due to the time of year hiring is done (Mason & Schroeder, 2010). Urban districts fail to land the strongest teacher applicants because of late job offers (Stotko et al., 2007). Revising the hiring timeline to avoid hiring late in the summer will enable schools to act more quickly and not lose out on strong applicants that may accept positions elsewhere (Behrstock & Coggshall, 2009; Center for Comprehensive School Reform and Improvement, 2005; Liu & Johnson, 2006; Peterson & Goodwin, 2008; Urquhart, 2008).

Negotiated agreements and district policies and procedures in the areas of transfer, vacancy, and placement decisions can hinder principal influence in teacher hiring (Strunk & Grissom, 2010). Instead of being able to recommend for hire a teacher who is an appropriate fit for the school and students, principals can be forced to accept transfer requests from teachers with seniority (Cohen-Vogel, 2011) or accept a teacher who can fill an extra-curricular opening. Negotiated agreements are barriers for teachers being placed in schools in a timely manner since some negotiated agreements permit teachers to retire or resign just prior to the school year with limited time to prepare for an opening that occurs at the last minute (Stotko et al., 2007). Therefore, school boards could improve the teacher hiring process for principals by facilitating changes in negotiated agreements that provide more flexibility for principals when recommending teachers for hire in their schools (Stotko et al., 2007).

Budget timetables and ineffective student enrollment forecasting can also impede the teacher hiring process for principals (Stotko et al., 2007). With the fiscal year ending

on June 30th in many states like North Dakota, principals might not know whether they can fill an anticipated opening due to lack of appropriate budget information (Behrstock & Coggshall, 2009). Principals may have to recommend for hire less experienced teachers who require a lower salary because of uncertain budgets. Furthermore, the inability of districts to accurately forecast student enrollments can force principals to wait on teacher hiring until very late in the summer until more accurate numbers are provided by the district office (Stotko et al., 2007). Adjustments made to move up the budget timetables (Behrstock & Coggshall, 2009) and student enrollment forecasts could alleviate hiring problems for principals (Stotko et al., 2007).

Teacher Hiring Process

No matter how complex the process, all teacher hiring processes tend to have the same identifiable components: (a) Recruitment, (b) Screening, (c) Interviewing, and (d) Selection (Peterson, 2002). Consideration and assessment of effective professional and personal teacher characteristics defined by Stronge (2007) and Danielson (2007) are vital functions of the teacher hiring process throughout each of the hiring stages.

Recruitment

Recruitment is the organized approach of attracting and identifying personnel in order to create a pool of candidates for vacant positions in a school district (Norton, 2008, p. 108). School districts and leaders need to attract and retain great teachers (Marzano & Waters, 2009; Peterson & Goodwin, 2008). Successfully recruiting effective teachers is one way to improve teaching in schools (Stigler & Thompson, 2009). Recruiting teachers is one of the most important activities in which school districts are involved since schools are in competition for attracting and retaining the best teachers (Kersten, 2008; Stotko et

al., 2007). Yet, public school districts could be doing more to recruit teacher candidates (Balter & Duncombe, 2008).

School districts that do not actively recruit may be at a disadvantage since the highest quality teachers will accept the most attractive job offers (Peterson, 2002). Even so, some districts face unique challenges in recruiting teachers: remoteness, small pool of potential candidates, resource (budget and staff) limitations (Balter & Duncombe, 2008). However, using effective recruitment strategies, even high need schools can be successful in attracting quality teacher applicants for open positions (Balter & Duncombe, 2008; Behrstock & Coggshall, 2009). School district leaders can help make their schools attractive places for teachers by establishing positive climates and working environments (Heller, 2004, p. 10).

Successful recruiting involves planning and the utilization of a variety of strategies and techniques, such as responsibilities for staff should be made clear, budgets established, and job descriptions developed (Norton, 2008). Investing in and using technology can also help streamline the application process (Behrstock & Coggshall, 2009) and allow for out-of-state or nationwide searches for relatively little cost. Districts can utilize their own website to advertise vacancies or register with online teacher candidate listings run by local colleges and universities (Balter & Duncombe, 2008; Peterson, 2002). Compared to Internet and computer technology, advertising in newspapers, on the radio or television is a more conventional method for recruiting teacher candidates (Balter & Duncombe, 2008; Peterson, 2002).

Although "walk-ins" can effectively add to a district's application pool, relying solely on this method is probably not adequate (Norton, 2008, p. 119). Other avenues for

attracting and finding good teaching candidates include consulting current district teachers for possible leads; showcasing the district by using brochures, fliers, and videos; networking with teaching colleges and universities; attending job fairs; advertising in professional journals; advertising out-of-state; enlisting in job banks; recruiting substitute teachers; and learning successful recruiting practices used by other districts (Balter & Duncombe, 2008; Norton, 2008; Peterson, 2002). Other possible sources for teacher candidates are student teachers, teacher aides, and retired teachers (Norton, 2008).

Some states allow financial incentives to recruit teachers. North Dakota state law, for instance, allows school districts to pay unlimited signing bonuses to teachers who did not teach in a North Dakota public school the previous year (North Dakota School Boards Association, n.d.). Also, North Dakota state law allows school districts within restricted guidelines to offer a salary above the negotiated salary schedule to fill positions required for school accreditation (North Dakota School Boards Association, n.d.).

To recruit the best teachers, schools need to market or sell what they have to offer (Peterson, 2002). Attractive compensation packages, positive working conditions, and incentives are recruiting strategies schools should consider for attracting strong teachers (Balter & Duncombe, 2005; Balter & Duncombe, 2008; Darling-Hammond, 2006; Guarino, et al., 2006; Liu & Johnson, 2006). Additionally, to be successful in attracting a high number of applicants and hiring the best possible teachers, school districts should actively recruit the entire school year (Center for Comprehensive School Reform and Improvement, 2005; Peterson, 2002; Sargent, 2003; Seyfarth, 2008).

Screening

Today many school districts only accept online applications (Norton, 2008). By having applications done electronically, paperwork is reduced and the volume of applications is more efficiently managed (Behrstock & Coggshall, 2009). In addition to saving time, a certain level of technology knowledge is expected of the upcoming generation of teachers, and electronic submission of an application demonstrates a level of technology proficiency (Behrstock & Coggshall, 2009).

After the applications have been assembled, it is time to narrow the field to a workable number of candidates. Screening involves analyzing the application paperwork (resumes, credentials, letters of recommendation, portfolios) verbal references, academic records, teaching experience, work history and past performance, tests, teaching certification, and professional characteristics to determine which teacher applicants to interview (Balter & Duncombe, 2005; Mason & Schroeder, 2010; Norton, 2008; Peterson, 2002).

Some districts include a screening interview to narrow the field of applicants prior to the selection interview. The purpose of the screening interview is to ensure the applicant meets the established criteria for the position (Seyfarth, 2008). Those applicants meeting the criteria of the district may be called for a selection interview. In screening applicants, background checks for finalists should be conducted to check the accuracy of applicant information (Norton, 2008; Seyfarth, 2008). Norton (2008) recommended that school districts do background checks as up to "40% of applicant resumes contain false or misleading information" (p. 143).

To prevent individuals with criminal records from becoming teachers, states such as North Dakota require that aspiring teachers for North Dakota licensure submit to a criminal history check (North Dakota Century Code, 2011b). The criminal history check can find past records of child molestation or other criminal activities (Norton, 2008). North Dakota law mandates that the state licensing board check the criminal history record of each applicant for an initial license and reentry teacher license (North Dakota Century Code, 2011b).

Interviewing

Ideally, principals would directly observe teacher candidates multiple times, but the time and cost associated with that practice prohibits most principals from that opportunity (Mason & Schroeder, 2010). Instead, principals have to rely on application documents and ultimately the interview process to select a teacher (Stronge & Hindman, 2006). After the hiring committee narrows the applications to a select number of candidates, the important process of the interview takes place. The interview is typically used for making the final hiring decision (Mason & Schroeder, 2010).

The process of interviewing teachers is an important task (Clement, 2009; Mason & Schroeder, 2010; Sargent, 2003), therefore, regardless of the school, principals should take lead to establish a hiring committee of teachers and other stakeholders (Balter & Duncombe, 2005; Behrstock & Coggshall, 2009; Peterson & Goodwin, 2008) who become responsible for the interviewing process (Mason & Schroeder, 2010). To minimize bias, Peterson (2002) and Norton (2008) recommended that an interview team consist of multiple interviewers on the committee. Otherwise, one person may hire a teacher based on a personal preference, opinion, or bias (Norton, 2009; Peterson, 2002).

The interview involves several steps that need to be carefully planned and organized while considering research-proven techniques and legal considerations (Norton, 2008; Stronge & Hindman, 2006). Prior to conducting the interviews, the hiring committee will need to determine the format. It is important to define the desired teacher characteristics and skill set of the teaching position prior to conducting the interview (Clement, 2009; Norton, 2008; Stronge & Hindman, 2006). Then the interview questions can be developed accordingly (Clement, 2009). Job descriptions can be used as a basis for defining the characteristics to be assessed during the interview (Norton, 2008). A structured interview format is recommended as it consists of questions related to the job, ensures each candidate is rated on the same set of questions, and tends to be a better predictor of future job success (Stronge & Hindman, 2006).

Stronge and Hindman (2006) developed a structured teacher interview protocol, The Teacher Quality Index (TQI), for use by principals and a building level selection committee. The TQI is a research-based interview protocol designed to assist in identifying effective teachers according to candidates' responses made to prepared questions during the interview (Stronge and Hindman, 2006). The interview questions developed by Stronge and Hindman were designed to align to research-based teacher characteristics that make a positive difference in student achievement (Stronge & Hindman, 2006). Further, the TQI protocol was designed for the purpose of helping the people responsible for interviewing make the best hiring decisions based on research.

The Gallup Organization's Teacher Perceiver Instrument (TPI) is a commercial teacher selection instrument designed by Donald Clifton and William Halland and an example of a structured interview tool (Kersten, 2008; Norton, 2008). The TPI was

designed to identify qualities and strengths specific to effective teachers (Metzger & Wu, 2008). However, a study conducted by Buresh (2003) showed inconclusive evidence for the Teacher Perceiver predicting future teacher effectiveness. Buresh (2003) noted, "if the TPI is to continue to be used, the education community should have research to support the validity of its predictions" (p. 101). However, Buresh (2003) could not recommend that schools discontinue the use of the TPI "until such time as a more credible system can be found to establish a level of teacher effectiveness and to test for relationships between variables" (p. 101).

Although schools continue to use commercial teacher selection instruments, Metzger and Wu (2008) concluded that more research was necessary to determine whether the TPI was a valuable tool for schools. Additionally, the types of interview questions asked are important. Experience-based and situational questions are the best type of questions to ask in interviews (Staiger & Rockoff, 2010; Stronge & Hindman, 2006).

Questions asking applicants what they can do or have done and questions asking how a candidate may address a situation are better predictors of an effective teaching applicant than informational questions asking what they know (Clement, 2008; Stronge & Hindman, 2006). Additionally, Clement (2008) argued that open-ended questions require a candidate to "describe in detail their past experiences, while demonstrating they know what to do when hired" (p. 23) in matters such as instructional planning, classroom management, monitoring student progress, student diversity, communication, and professionalism. Taking notes during the interview also helps the interviewers recall the information gathered from each interviewee (Stronge & Hindman, 2006). Further,

personal interactions, such as introductions and icebreaker activities with the interviewee also help to make a positive connection and put the candidate at ease for the interview.

Interviewers need to be knowledgeable in legal issues, such as federal and state employment laws. Employment laws can vary from state to state (Norton, 2008). The same types of questions that are not allowed on a job application are also not permissible during a job interview (Thune & Martin, 2010). Asking medically related questions that may reveal a disability are unlawful under the Americans with Disabilities Act. Additionally, according to the North Dakota Department of Labor (2011), certain questions should be avoided to prevent potential litigation including: questions that are irrelevant to the job, age or date of birth, gender, race, birthplace, national origin, marital status, dependents, childcare arrangements, religion, and public assistance.

The Civil Rights Act of 1964 by the federal government prohibits discrimination based on race, sex, religion, or national origin (Stronge & Hindman, 2006). Statistics show that most litigation cases for discrimination are linked to violations of the Civil Rights Act of 1964. Stronge and Hindman (2006) provide a list of selected federal laws pertinent to hiring that include: Equal Pay Act of 1963, Age Discrimination in Employment Act of 1967, Equal Employment Opportunity Act of 1972, Rehabilitation Act of 1973, Americans with Disabilities Act of 1990, and Civil Rights Act of 1991 (p. 36).

Interview notes should be kept on file for at least 300 days since that is the time limit for filing a charge for discriminatory hiring practices with the North Dakota Department of Labor (Thune & Martin, 2010). Further, nothing should be said after the interview that may lead a candidate to believe a job has been offered. Candidates that are

considered successful should be told they will be recommended to the school board for hire, and their official hire is subject to board approval at an official public school board meeting (Thune & Martin, 2010).

Finally, prior to conducting interviews, it is important that the interviewers receive proper training (Norton, 2008; Stronge & Hindman, 2006). Interview training is necessary to ensure the interviewers are conducting all aspects of the interview properly and assessing the candidates in a similar manner (Norton, 2008; Peterson, 2002). Furthermore, training is essential for conducting the interview in a legal manner (Stronge & Hindman, 2006). According to Stronge and Hindman (2006) training administrators in interviewing effectively can result in better teacher hiring decisions, thus better teachers for students (p. 49).

Selection

Effective districts hire skillful teachers as a result of principals at the building level playing a primary role in the selection process (Peterson & Goodwin, 2008). Although larger districts tend to have a more centralized process for the recruitment and screening of candidates (Mason & Schroeder, 2010), the teacher recommended for hire should be facilitated by principals at the individual building level (National Council on Teacher Quality, 2010; Stronge & Hindman, 2006). The individual selected for the job should be notified promptly by a phone call and a follow-up letter to confirm the decision (Peterson, 2002). The other applicants should not be told they were not the first choice until the hire is confirmed (Peterson, 2002). As a courtesy, unsuccessful applicants should receive some form of personal communication informing them of the decision to

hire someone else (Seyfarth, 2008). Finally, the teacher is offered a teaching contract, approved at an official school board meeting, and added to the teaching staff.

Summary

Successful teacher hiring by principals involves knowledge and understanding of effective teacher characteristics and behaviors (Mason & Schroeder, 2010; Stronge & Hindman, 2003). Moreover, knowledge and skill in the teacher hiring process is needed by principals to help ensure the best teachers are found and hired (Peterson, 2002). From recruitment to selection, principals can greatly improve their schools with the quality of the educators hired (Stronge & Hindman, 2003). The hiring process in schools includes recruiting potential teacher candidates, organizing a hiring committee, screening applications, interviewing prospective teachers, making recommendations for hire to the superintendent and school board, and understanding federal and state laws related to hiring (Peterson, 2002; Stronge & Hindman, 2006). Since the quality of teachers makes a big difference on student achievement, principals must find ways to select teachers with high teaching effectiveness characteristics linked to improved student achievement.

Stronge's (2007) research on qualities of effective teachers offers principals knowledge on attributes, characteristics, and traits associated with teachers being able to perform at a level resulting in student success. Stronge (2007) presents principals with detailed descriptions of effective teacher characteristics, skills, and knowledge that can be used as a foundation for recruiting, screening, and selecting the best teachers for schools. Tools such as Stronge and Hindman's (2006) Teacher Quality Index, a research-based interview protocol can assist principals in identifying and selecting effective teachers.

Remaining Study

Chapter II has presented a comprehensive review of selected literature and research in the area of effective teacher characteristics and the literature and research on the teacher hiring process. Chapter III provides a description of this study while Chapter IV consists of this study's results and findings. Finally, Chapter V is a discussion of this study along with conclusions and recommendations for future research.

CHAPTER III

METHODOLOGY

The purpose of this study was to determine the extent to which North Dakota public school principals consider research-based professional and personal teacher characteristics when hiring teachers. Additionally, this study sought to determine North Dakota public school principals' perceptions regarding teacher hiring practices – the interviewing and teacher selection process.

Research Questions

This study addressed the following research questions:

1. When considering teachers for hire, how do North Dakota public school principals rank a list including five research-based and five non-research based professional teacher characteristics?
2. When considering teachers for hire, what are the significant differences in how North Dakota public school principals rank a list including five research-based and five non-research based professional teacher characteristics?
3. When considering teachers for hire, how do North Dakota public school principals rank a list including five research-based and five non-research based personal teacher characteristics?

4. When considering teachers for hire, what are the significant differences in how North Dakota public school principals rank a list including five research-based and five non-research based personal teacher characteristics?
5. What are North Dakota public school principals' perceptions of the interviewing and selection process during teacher hiring?

Population and Sample

The population for this study was 445 North Dakota public school principals from 149 public school districts (North Dakota Department of Public Instruction, 2011). Thirteen of the school districts were Class A districts and 136 were Class B districts (North Dakota Department of Public Instruction, 2011). Of the 445 principals, 295 were male and 150 were female. The sample for this study was 220 North Dakota public school principals from 75 public school districts that agreed to participate in this study. Six of the school districts were Class A districts and 69 were Class B districts. Of the 220 principals, 144 were male and 76 were female. Assistant principals were excluded from this study.

Survey Instrument

The four part survey (Appendix A) was constructed by the researcher and was designed to help gather data regarding answers to this study's research questions. The first part of the instrument asked the principals to answer demographic questions. The second and third parts of the survey requested that the principals rank order lists of teacher characteristics when considering teacher candidates for hire. Part four asked the principals for their perceptions of the teacher hiring process. The amount of time for the principals to complete the survey was estimated to be fifteen minutes.

Pilot Survey

The researcher created the initial survey on paper using the research of Stronge (2007) and Stronge and Hindman (2006). Then the survey was transferred to SurveyGizmo (www.surveygizmo.com), an online survey software and questionnaire tool. The researcher used an electronic survey because of the potential to obtain results quicker compared to postal mail. The researcher also believed that the convenience of an electronic survey for principals might result in a higher return rate. Additionally, the researcher chose an online survey service to save money since the cost of SurveyGizmo's service was considerably less than what it would have cost for postage and stationery. Finally, the online survey tool allowed the researcher to download the data privately and securely into the Statistical Package for the Social Sciences (SPSS) program for analysis.

Prior to final survey construction, the researcher, using the survey instrument, conducted a pilot study involving 18 principals not participating in the study. The principals had experience in teacher hiring and consisted of seven elementary principals, four middle school principals, six high school principals and one middle school through high school principal. The researcher sent an e-mail asking the principals to pilot test the survey. A link within the e-mail provided access to the survey. The information from the pilot survey was used to determine face and content validity and to perform a reliability measure of the survey instrument. The researcher collected the feedback from the principals electronically through the SurveyGizmo computer program.

Final Survey Construction

The pilot survey data was analyzed by the researcher for reliability using SPSS. The Cronbach's alpha for items on the survey was determined to range from 0.472 to

0.690. Two survey items were eliminated and the Cronbach's alpha improved to a range of .702 to .902. An alpha coefficient of 0.70 or higher is considered acceptable reliability (Cohen, Manion, & Morrison, 2007; Mertler & Vannatta, 2010). In order to increase the validity of the survey, the researcher used feedback from the pilot group to revise the survey for appearance, clarity, relevance, and content.

The final online survey instrument consisted of four different parts. The first part of the survey was designed to collect demographic data by asking the principals to choose answers to six multiple-choice items. Principals were asked to identify their gender, school district, and position. Principals were also asked to report whether they also served as a superintendent of schools. The last two items asked the principals to share whether their school districts had teacher hiring policies and practices, and whether they led the teacher interview and selection process when making recommendations for teacher hires in their school.

The second and third part of the survey asked principals to rank order lists of teacher characteristics. Stronge's (2007) work was the basis for the research-based professional and personal characteristics and the researcher provided the non-research based professional and personal teacher characteristics of the survey. Part two asked principals to rank from 1 to 10 a list consisting of five research-based professional teacher characteristics (Ability to engage students in learning; Classroom management and organization skills; Ability to respond to student needs and abilities; Ability to implement a variety of instructional strategies; and Instructional planning and preparation knowledge) and five non-research based professional teacher characteristics (Technology knowledge; Years of classroom teaching experience; Cumulative grade point average on

College/University transcript; Honors and achievements earned; and College or University attended). Part three asked principals to rank from 1 to 10 a list consisting of five research-based personal teacher characteristics (Ability to interact positively with students; Enthusiasm and motivation for teaching; Ability to show care and concern for students; Reflective practice of teaching performance; and Verbal ability) and five non-research based personal teacher characteristics (Ability to get along with colleagues; Personality; Creativity; Work ethic; and Appearance).

The research of Stronge and Hindman (2006) was used for developing the fourth part of the survey which collected information on the principals' perceptions of the teacher hiring process. Survey items 1 through 8 in part four asked principals to report on a six point (Strongly Disagree to Strongly Agree) Likert-type scale the extent they agreed with teacher hiring process statements regarding the interview. Survey items 9 through 15, in part four, asked principals to report on a six point (Strongly Disagree to Strongly Agree) Likert-type scale the extent they agreed with teacher hiring process statements regarding teacher selection.

Data Collection

Prior to distributing the survey, the researcher received permission from the Institutional Review Board (IRB) at the University of North Dakota. The researcher used the school district directory information from the North Dakota Department of Public Instruction (NDDPI), and sent via email a letter of consent (see Appendix B) to 145 superintendents representing the 149 K-12 public North Dakota school districts and 445 principals. The letter of consent and a short memo at the beginning of the e-mail described the purpose of the research and requested superintendents to grant permission

for their principals to participate in this study. A second e-mail and letter of consent was emailed to each superintendent that had not responded. Of the 145 superintendents, 72 superintendents representing 75 of the 149 K-12 school districts granted permission to invite the 220 principals from their school districts to take part in this study.

The researcher also contacted via email the 220 principals asking for their willingness to participate in this study. The directory information for principals was available from the NDDPI. The e-mail sent to the principals contained the letter of consent (see Appendix C) and the link to access the electronic survey. The principals that agreed to participate in this study were asked to complete the survey. A second e-mail was sent to the principals after two weeks thanking those who had participated and asking for responses from those who had not yet responded. Of the 220 principals invited to take the survey, 110 responses were received.

The online survey tool prevented principals from taking the survey more than once. Also, the responses from the principals were stored on the online survey program, but the researcher was not able to know the identity of the principals. After the time frame for the survey expired, the researcher accessed the survey data electronically and downloaded the confidential data into a Microsoft Excel document.

Data Analysis

The researcher used the SPSS statistical tool to analyze descriptive and inferential statistics for this study. The research questions were analyzed as described below:

Research Question 1: When considering teachers for hire, how do North Dakota public school principals rank a list including five research-based and five non-research based professional teacher characteristics? To answer this question, descriptive statistics

were compiled using principals' responses for the ten professional teacher characteristics items on the second part of the survey.

Research Question 2: When considering teachers for hire, what are the significant differences in how North Dakota public school principals rank a list including five research-based and five non-research based professional teacher characteristics? For this question, the independent variables were gender, type of school district, position, principal/superintendent dual role, district teacher hiring policies and procedures, and principal role in teacher interview and selection process while the dependent variables were the mean scores for the responses given for part two (professional teacher characteristics) of the survey. Independent samples *t* tests were conducted to determine the mean score differences for the independent variables of gender, type of school district, principal/superintendent dual role, district teacher hiring policies and procedures, and principal role in teacher interview and selection process. Levene's Test for Equality of Variances was used to determine equality of variances between the groups on the dependent variables. One-way analyses of variance (ANOVAs) were computed to determine the level of significance for mean score differences and position of the principal. The .05 level of significance was used for each family of these tests.

Research Question 3: When considering teachers for hire, how do North Dakota public school principals rank a list including five research-based and five non-research based personal teacher characteristics? To answer this question, descriptive statistics were determined using principals' responses for the ten professional teacher characteristics items on the third part of the survey.

Research Question 4: When considering teachers for hire, what are the significant differences in how North Dakota public school principals rank a list including five research-based and five non-research based personal teacher characteristics? For this question, the independent variables were gender, type of school district, position, principal/superintendent dual role, district teacher hiring policies and procedures, and principal role in teacher interview and selection process while the dependent variables were the mean scores for the responses given for part three (personal teacher characteristics) of the survey. Independent samples *t* tests were conducted to determine the mean score differences for the independent variables of gender, type of school district, principal/superintendent dual role, district teacher hiring policies and procedures, and principal role in teacher interview and selection process. Levene's Test for Equality of Variances was used to determine equality of variances between the groups on the dependent variables. ANOVAs were computed to determine the level of significance for mean score differences and position of the principal. The .05 level of significance was used for each family of these tests.

Research Question 5: What are North Dakota public school principals' perceptions of the interviewing and selection process during teacher hiring? Descriptive statistics were generated from the fifteen items on the fourth part of the survey.

Summary

Chapter III presented the methodology used to conduct this research study. The following chapters include a presentation of the data and a summary from this study. Chapter IV is a report of the data for each of the research questions. Chapter V entails a summary and discussion of the findings of this study as it relates to the literature review.

Additionally, recommendations are made to specific stakeholders with a vested interest in this study. Finally, the researcher discusses recommendations for further study.

CHAPTER IV

RESULTS

The purpose of this study was to determine the extent to which North Dakota public school principals consider research-based professional and personal teacher characteristics when hiring teachers. Additionally, this study sought to determine North Dakota public school principals' perceptions regarding teacher hiring practices – the interviewing and teacher selection process.

This study addressed the following research questions:

1. When considering teachers for hire, how do North Dakota public school principals rank a list including five research-based and five non-research based professional teacher characteristics?
2. When considering teachers for hire, what are the significant differences in how North Dakota public school principals rank a list including five research-based and five non-research based professional teacher characteristics?
3. When considering teachers for hire, how do North Dakota public school principals rank a list including five research-based and five non-research based personal teacher characteristics?
4. When considering teachers for hire, what are the significant differences in how North Dakota public school principals rank a list including five research-based and five non-research based personal teacher characteristics?

5. What are North Dakota public school principals' perceptions of the interviewing and selection process during teacher hiring?

Response Rate

The population for this study was 445 North Dakota public school principals from 149 North Dakota public school districts. The sample for this study was 220 North Dakota public school principals from 75 public school districts that agreed to participate in this study. One hundred ten responses were received for a response rate of 25% for the population and 50% for the sample. The statistics reported in this study are based on the responses from the 110 principals who responded.

Demographic Data

Principals were asked to identify their gender, school district, and position. Principals were also asked to report whether they served a dual role as a superintendent of schools. The last two items asked the principals to share whether their school districts had teacher hiring policies and practices and whether, as a principal, they led the teacher interview and selection process when making recommendations for teacher hires in their schools. Of the 110 returned surveys, 69 (62.7%) were male while 41 (37.3%) were female principals. Forty-four (40%) principals from Class A Districts and 66 (60.0%) principals from Class B Districts responded to the survey. The data revealed 64 (58.2%) of the principals were elementary school principals, 5 (4.6%) were junior high/middle school principals, 22 (20.0%) were high school principals, 4 (3.6%) were elementary through junior high/middle school principals, 15 (13.6%) were junior high/middle school through high school principals, and 0 (0.0%) were elementary through high school principals.

Of the 110 principals, 12 (10.9%) indicated they served as a superintendent/principal while 98 (89.1%) indicated they did not also serve as a superintendent. One respondent did not provide information on whether their school district had written policies and/or procedures for hiring teachers. Of the 109 principals, 54 (49.5%) indicated their districts had written policies and/or procedures for hiring teachers while 55 (50.5%) indicated their districts did not have written policies and/or procedures for hiring teachers. Finally, when asked whether principals led the interview and selection process when making teacher recommendations for their schools, 75 (68.2%) revealed they did and 35 (31.8%) revealed they did not lead the interview and selection process when making teacher recommendations for their schools. A summary of the demographic data of the principals obtained from Part One of the survey is provided in Table 3.

Results Related to the Research Questions

Research Question 1: When considering teachers for hire, how do North Dakota public school principals rank a list including five research-based and five non-research based professional teacher characteristics?

Survey responses to part two of the survey were used to answer this question. The principals were asked to rank order a list of five research-based and five non-research based professional teacher characteristics from 1 to 10. Using SPSS, the means were generated from the principals' responses. The results showed the highest ranked professional teacher characteristic when considering teachers for hire was the ability to

Table 3. Summary of Principal Demographic Data.

Characteristic	Number	Percentage
Gender		
Male	69	62.7
Female	41	37.3
Total	110	100.0
Type of District		
Class A	44	40.0
Class B	66	60.0
Total	110	100.0
Position		
Elementary School Principal	64	58.2
Junior High/Middle School Principal	5	4.6
High School Principal	22	20.0
Elementary & Junior High/Middle School Principal	4	3.6
Junior High/Middle School & High School Principal	15	13.6
Elementary through High School Principal	0	0.0
Total	110	100.0
Also Serve as Superintendent of School		
Yes	12	10.9
No	98	89.1
Total	110	100.0
School District has Written Policies and/or Procedures for Hiring Teachers		
Yes	54	49.5
No	55	50.5
Total	109	100.0
Lead the Interview and Selection Process		
Yes	75	68.2
No	35	31.8
Total	110	100.0

engage students in learning (M = 2.4, SD = 1.7). The lowest ranked professional teacher characteristic by the principals was college/university attended (M = 9.2, SD = 1.8). A summary of rank order of Principal's responses is presented in Table 4.

Table 4. Rank Order of Professional Teacher Characteristics by North Dakota Public School Principals When Considering Teachers for Hire.

Professional Characteristics	*M*	*SD*	Rank
Ability to Engage Students in Learning	2.4	1.7	1
Classroom Management and Organization Skills	3.0	1.6	2
Ability to Respond to Student Needs and Abilities	3.0	1.7	2
Ability to Implement a Variety of Instructional Strategies	3.7	1.7	4
Instructional Planning and Preparation Knowledge	4.1	1.6	5
Technology Knowledge	5.9	1.4	6
Years of Classroom Teaching Experience	6.9	1.5	7
Cumulative GPA on College/University Transcript	8.2	1.8	8
Honors and Achievements Earned	8.3	1.5	9
College or University Attended	9.2	1.8	10

Research Question 2: When considering teachers for hire, what are the significant differences in how North Dakota public school principals rank a list including five research-based and five non-research based professional teacher characteristics?

Using SPSS, independent samples *t* tests were conducted to determine the mean score differences for the independent variables of gender, type of school district, principal/superintendent dual role, district teacher hiring policies and procedures, and principal role in teacher interview and selection process. Levene's Test for Equality of Variances was used to determine equality of variances between the groups on the dependent variables. ANOVAs were computed using SPSS to determine the level of significance for mean score differences and position of the principal.

An independent samples *t* test was computed to determine if a difference existed when comparing the mean scores of male principals to female principals. A significant difference was found for the professional teacher characteristic instructional planning and preparation knowledge $t(108) = -2.119$, $p < .05$, $d = -0.45$. Male principals ($M = 3.8$) marked instructional planning and preparation knowledge significantly higher than female principals ($M = 4.5$). The differences in the professional teacher characteristics ranked by North Dakota principals when hiring teachers based on gender are presented in Table 5.

Also, an independent samples *t* test was computed comparing the mean scores of principals from Class A North Dakota public school districts to the mean scores of principals from Class B North Dakota public school districts. A significant difference was found for the professional teacher characteristic technology knowledge $t(108) =$

Table 5. Differences for Professional Teacher Characteristics Ranked by North Dakota Public School Principals When Hiring Teachers Based on Principals' Gender.

Professional Characteristics	Mean Male (n=69)	Mean Female (n=41)	*t*	*df*	*p*	Effect Size *d*
Ability to Engage Students in Learning	2.5 (1)	2.3 (1)	.783	108	.435	0.12
Classroom Management and Organization Skills	3.2 (2)	2.7 (2)	1.750	104	.083	0.32
Ability to Respond to Student Needs and Abilities	3.2 (2)	2.8 (3)	1.260	108	.210	0.24
Ability to Implement a Variety of Instructional Strategies	3.6 (4)	3.8 (4)	-.428	108	.670	-0.11
Instructional Planning and Preparation Knowledge	3.8 (5)	4.5 (5)	-2.119	108	*.036	-0.45
Technology Knowledge	6.0 (6)	5.8 (6)	.786	108	.433	0.15
Years of Classroom Teaching Experience	7.0 (7)	6.7 (7)	.931	108	.354	0.20
Honors and Achievements Earned	8.1 (8)	8.4 (9)	-.924	108	.357	-0.20
Cumulative GPA on College/University Transcript	8.2 (9)	8.1 (8)	.191	108	.849	0.06
College or University Attended	9.2 (10)	9.1 (10)	.262	108	.794	0.05

Note. *Significant at the $p < .05$ level. Rank order of mean scores in parentheses.

2.170, $p < .05$, $d = 0.46$. Principals from North Dakota Class B public school districts ($M = 5.7$) marked technology knowledge significantly higher than principals from North Dakota Class A public school districts ($M = 6.3$). A significant difference was also found

for the professional teacher characteristic college or university attended $t(85) = 2.009$, $p < .05$, $d = 0.39$. Principals from North Dakota Class B public school districts ($M = 8.9$) marked college or university attended significantly higher than principals from North Dakota Class A public school districts ($M = 9.6$). The differences in the professional teacher characteristics ranked by North Dakota public school principals when hiring teachers based upon school district type are presented in Table 6.

An independent samples *t* test was computed to compare the mean scores of principals with dual roles. No significant differences were found for professional teacher characteristics based on the principal/superintendent dual role (Summary in Table 7).

No significant differences for professional teacher characteristics were found when an independent samples *t* test was calculated to compare the mean scores of principals who reported their districts had policies and procedures for hiring teachers to principals who responded their districts did not have policies and procedures for hiring teachers. A summary of this information is provided in Table 8.

Additionally, no significant differences were found for professional teacher characteristics when an independent samples *t* test was calculated to compare the mean scores of principals who reported they led the interview and selection process when making recommendations for teacher hires for their schools to principals who indicated they did not lead the interview and selection process when making recommendations for teacher hires in their schools. A summary of this information is presented in Table 9.

Table 6. Differences for Professional Teacher Characteristics Ranked by North Dakota Public School Principals When Hiring Teachers Based on School District Type.

Professional Characteristics	Mean Class A (n=44)	Mean Class B (n=66)	*t*	*df*	*p*	Effect Size *d*
Ability to Engage Students in Learning	2.3 (1)	2.5 (1)	-.582	108	.561	-0.12
Classroom Management and Organization Skills	3.2 (3)	2.9 (2)	1.014	108	.313	0.19
Ability to Respond to Student Needs and Abilities	2.8 (2)	3.2 (3)	-1.143	108	.255	-0.23
Ability to Implement a Variety of Instructional Strategies	3.4 (4)	3.8 (4)	-1.142	108	.256	-0.23
Instructional Planning and Preparation Knowledge	3.9 (5)	4.2 (5)	-1.032	108	.304	-0.19
Technology Knowledge	6.3 (6)	5.7 (6)	2.170	108	*.032	0.46
Years of Classroom Teaching Experience	6.8 (7)	6.9 (7)	-.338	108	.736	-0.07
Cumulative GPA on College/University Transcript	8.2 (8)	8.1 (8)	.199	108	.843	0.06
Honors and Achievements Earned	8.5 (9)	8.1 (8)	1.482	108	.141	0.27
College or University Attended	9.6 (10)	8.9 (10)	2.009	85	*.048	0.39

Note. *Significant at the $p < .05$ level. Rank order of mean scores in parentheses.

Table 7. Differences for Professional Teacher Characteristics Ranked by North Dakota Public School Principals When Hiring Teachers Based on Principal/Superintendent Dual Role.

Professional Characteristics	Mean Yes Supt. (n=12)	Mean No Supt. (n=98)	*t*	*df*	*p*	Effect Size *d*
Ability to Engage Students in Learning	2.3 (1)	2.5 (1)	-.393	108	.695	-0.12
Classroom Management and Organization Skills	2.7 (2)	3.1 (2)	-.819	108	.415	-0.25
Ability to Respond to Student Needs and Abilities	2.9 (3)	3.1 (2)	-.276	108	.783	-0.12
Ability to Implement a Variety of Instructional Strategies	3.7 (4)	3.7 (4)	.006	108	.995	0.00
Instructional Planning and Preparation Knowledge	3.9 (5)	4.1 (5)	-.318	108	.751	-0.13
Technology Knowledge	5.6 (6)	6.0 (6)	-.960	108	.339	-0.30
Years of Classroom Teaching Experience	7.5 (7)	6.8 (7)	1.602	108	.112	0.47
Cumulative GPA on College/University Transcript	8.5 (9)	8.1 (8)	.702	108	.484	0.23
Honors and Achievements Earned	8.4 (8)	8.2 (9)	.423	108	.673	0.14
College or University Attended	9.6 (10)	9.1 (10)	.800	108	.425	0.27

Note. *Significant at the $p < .05$ level. Rank order of mean scores in parentheses

Table 8. Differences for Professional Teacher Characteristics Ranked by North Dakota Public School Principals When Hiring Teachers Based on Whether or not Principals' Districts Have Policies and Procedures for Hiring Teachers.

Professional Characteristics	Mean Yes Pol/Pro (n=54)	Mean No Pol/Pro (n=55)	*t*	*df*	*p*	Effect Size *d*
Ability to Engage Students in Learning	2.3 (1)	2.6 (1)	-.913	107	.363	-0.17
Classroom Management and Organization Skills	3.1 (2)	3.0 (3)	.483	101	.630	0.06
Ability to Respond to Student Needs and Abilities	3.2 (3)	2.9 (2)	.845	107	.400	0.18
Ability to Implement a Variety of Instructional Strategies	3.6 (4)	3.7 (4)	-.182	107	.856	-0.06
Instructional Planning and Preparation Knowledge	3.9 (5)	4.2 (5)	-.966	107	.336	-0.19
Technology Knowledge	6.2 (6)	5.7 (6)	1.633	107	.105	0.37
Years of Classroom Teaching Experience	6.7 (7)	7.0 (7)	-.905	107	.367	-0.20
Cumulative GPA on College/University Transcript	8.3 (8)	8.1 (8)	.551	107	.583	0.11
Honors and Achievements Earned	8.4 (9)	8.1 (8)	1.119	107	.265	0.20
College or University Attended	9.4 (10)	9.0 (10)	1.047	107	.297	0.22

Note. *Significant at the $p < .05$ level. Rank order of mean scores in parentheses.

Table 9. Differences for Professional Teacher Characteristics Ranked by North Dakota Public School Principals When Hiring Teachers Based on Whether or not Principals Lead the Interview and Selection Process.

Professional Characteristics	Mean Yes Lead Process (n=75)	Mean No Lead Process (n=35)	*t*	*df*	*p*	Effect Size *d*
Ability to Engage Students in Learning	2.3 (1)	2.7 (1)	-1.032	108	.110	-0.23
Classroom Management and Organization Skills	3.0 (3)	3.0 (2)	.072	49	.943	0.00
Ability to Respond to Student Needs and Abilities	2.9 (2)	3.4 (3)	-1.376	108	.172	-0.29
Ability to Implement a Variety of Instructional Strategies	3.5 (4)	4.0 (4)	-1.510	108	.134	-0.29
Instructional Planning and Preparation Knowledge	3.9 (5)	4.5 (5)	-1.840	108	.068	-0.38
Technology Knowledge	6.1 (6)	5.7 (6)	1.197	52	.237	0.30
Years of Classroom Teaching Experience	6.9 (7)	7.0 (7)	-.012	108	.435	-0.07
Cumulative GPA on College/University Transcript	8.23 (8)	8.0 (9)	.784	108	.305	0.17
Honors and Achievements Earned	8.4 (9)	7.9 (8)	1.474	108	.143	0.34
College or University Attended	9.4 (10)	8.8 (10)	1.305	43	.199	0.33

Note. *Significant at the $p < .05$ level. Rank order of mean scores in parentheses.

One-way analyses of variance (ANOVAs) were computed to determine the level of significance for mean score differences and position of the principal (elementary, junior high/middle school, high school, elementary and junior high/middle school, junior

high/middle school and high school, elementary through high school) when considering teachers for hire. No statistically significant differences were found. No elementary through high school (K-12) principals responded to the survey. A summary of this information is provided in Tables 10 and 11.

Research Question 3: **When considering teachers for hire, how do North Dakota public school principals rank a list including five research-based and five non-research based personal teacher characteristics?**

Survey responses to part three of the survey were used to answer this question. The principals were asked to rank order a list of five research-based and five non-research based personal teacher characteristics from 1 to 10. Using SPSS, the means were generated from the principals' responses. Based on the findings, the highest ranked personal teacher characteristic when considering teachers for hire was the ability to interact positively with students ($M = 2.6$, $SD = 1.9$). The lowest ranked personal teacher characteristic chosen by the principals was appearance ($M = 9.1$, $SD = 1.8$). A summary of these findings is presented in Table 12.

Research Question 4: When considering teachers for hire, what are the significant differences in how North Dakota public school principals rank a list including five research-based and five non-research based personal teacher characteristics?

Independent samples *t* tests were conducted using SPSS to determine the mean score differences for the independent variables of gender, type of school district, principal/superintendent dual role, district teacher hiring policies and procedures, and principal role in teacher interview and selection process. Levene's Test for Equality of Variances was used to determine equality of variances between the groups on the

Table 10. Means for Professional Teacher Characteristics Ranked by North Dakota Public School Principals When Hiring Teachers Based on Principals' Positions.

	Mean Elementary (n=64)	Mean Junior/Middle (n=5)	Mean High School (n=22)	Mean Elem/JHMS (n=4)	Mean JHMS/HS (n=15)
Ability to Engage Students in Learning	2.6 (1)	2.0 (1)	2.2 (1)	3.0 (3)	2.1 (1)
Classroom Management and Organization Skills	3.0 (2)	3.0 (3)	3.3 (3)	2.8 (1)	2.7 (2)
Ability to Respond to Student Needs and Abilities	3.0 (2)	3.0 (3)	2.8 (2)	2.8 (1)	3.8 (4)
Ability to Implement a Variety of Instructional Strategies	3.8 (4)	2.4 (2)	3.6 (4)	3.5 (4)	3.7 (3)
Instructional Planning and Preparation Knowledge	4.2 (5)	3.6 (5)	3.7 (5)	4.3 (5)	4.1 (5)
Technology Knowledge	6.0 (6)	6.0 (6)	6.0 (6)	4.8 (6)	6.1 (6)
Years of Classroom Teaching Experience	6.7 (7)	6.8 (8)	7.2 (7)	7.3 (7)	6.9 (7)
Cumulative GPA on College/University Transcript	8.2 (8)	7.2 (9)	8.4 (9)	8.5 (8)	7.9 (8)
Honors and Achievements Earned	8.4 (9)	6.4 (7)	8.3 (8)	8.8 (9)	8.1 (9)
College or University Attended	9.0 (10)	7.8 (10)	9.7 (10)	9.5 (10)	9.7 (10)

Note. No elementary through high school (K-12) principals responded to the survey. Rank order of mean scores in parentheses.

Table 11. ANOVA for Professional Teacher Characteristics Ranked by North Dakota Public School Principals When Hiring Teachers Based on Principals' Position.

Professional Characteristics	Source	*df*	*SS*	*MS*	*F*	*p*
Ability to Engage Students in Learning	Between groups	4	6.611	1.653	.542	.706
	Within groups	105	320.444	3.052		
	Total	109	327.055			
Classroom Management and Organization Skills	Between groups	4	3.579	.895	.353	.842
	Within groups	105	266.384	2.537		
	Total	109	269.964			
Ability to Respond to Student Needs and Abilities	Between groups	4	10.412	2.603	.892	.471
	Within groups	105	306.360	2.918		
	Total	109	316.773			
Ability to Implement a Variety of Instruct. Strat.	Between groups	4	9.817	2.454	.803	.526
	Within groups	105	320.738	3.055		
	Total	109	330.555			
Instructional Planning and Preparation Knowledge	Between groups	4	5.657	1.414	.554	.696
	Within groups	105	268.015	2.553		
	Total	109	273.673			

Table 11 cont.

Professional Characteristics	Source	*df*	*SS*	*MS*	*F*	*p*
Technology Knowledge	Between groups	4	6.257	1.564	.854	.494
	Within groups	105	192.297	1.831		
	Total	109	198.555			
Years of Classroom Teaching Experience	Between groups	4	5.576	1.394	.620	.649
	Within groups	105	236.097	2.249		
	Total	109	241.673			
Cumulative GPA on College/University Transcript	Between groups	4	7.493	1.873	.600	.663
	Within groups	105	327.562	3.120		
	Total	109	335.055			
Honors and Achievements Earned	Between groups	4	19.891	4.973	2.390	.055
	Within groups	105	218.481	2.081		
	Total	109	238.373			
College or University Attended	Between groups	4	21.473	5.368	1.625	.173
	Within groups	105	346.890	3.304		
	Total	109	368.364			

Note. *Significant at the $p < .05$ level. No elementary through high school (K-12) principals responded to the survey.

Table 12. Rank Order of Personal Teacher Characteristics by North Dakota Public School Principals When Considering Teachers for Hire.

Personal Characteristics	*M*	*SD*	Rank
Ability to Interact Positively with Students	2.6	1.9	1
Enthusiasm and Motivation for Teaching	2.9	1.8	2
Ability to Show Care and Concern for Students	3.5	1.9	3
Work Ethic	3.7	1.9	4
Reflective Practice of Teaching Performance	5.5	2.4	5
Ability to Get Along with Colleagues	6.1	2.3	6
Personality	6.4	2.3	7
Verbal Ability	7.1	1.8	8
Creativity	7.5	2.1	9
Appearance	9.1	1.8	10

dependent variables. ANOVAs were computed using SPSS to determine the level of significance for mean score differences and position of the principal. The .05 level of significance was used for each family of these tests.

An independent samples *t* test was computed to determine if a significant difference existed when comparing the mean scores of male principals to female principals. A significant difference was found for the personal teacher characteristic ability to interact positively with students $t(108) = 2.274$, $p < .05$, $d = 0.38$. Female principals ($M = 2.1$) marked ability to interact positively with students significantly higher than male principals ($M = 2.8$). In addition, a significant difference was found for

the personal teacher characteristic ability to get along with colleagues $t(108) = 2.615$, $p < 0.5$, $d = 0.53$. Female principals ($M = 5.4$) marked ability to get along with colleagues significantly higher than male principals ($M = 6.6$). A summary of these findings is presented in Table 13.

Also, an independent samples *t* test was computed comparing the mean scores of principals from Class A North Dakota public school districts to the mean scores of principals from Class B North Dakota public school districts. No significant differences were found for the personal teacher characteristics. A summary of these findings is presented in Table 14.

An independent samples *t* test was also computed comparing the mean scores of principals who were also superintendents. A significant difference was found for the personal teacher characteristic ability to interact positively with students ($t(36) = -2.912$, $p < .05$, $d = -0.49$). Principals with the dual role of superintendent ($M = 1.8$) marked ability to interact positively with students significantly higher than principals with no superintendent dual role ($M = 2.7$). In addition, a significant difference was found for the personal teacher characteristic appearance $t(84) = 3.805$, $p < 0.5$, $d = 0.45$. Principals with no superintendent dual role ($M = 9.0$) marked appearance significantly higher than principals with the dual role of superintendent ($M = 9.8$). Table 15 represents the independent samples *t* tests for principals who also serve as a school superintendent.

No significant differences for personal teacher characteristics were found when an independent samples *t* test was calculated to compare the mean scores of principals who reported their districts had policies and procedures for hiring teachers to principals who

Table 13. Differences for Personal Teacher Characteristics Ranked by North Dakota Public School Principals When Hiring Teachers Based on Principals' Gender.

Personal Characteristics	Mean Male (n=69)	Mean Female (n=41)	*t*	*df*	*p*	Effect Size *d*
Ability to Interact Positively with Students	2.8 (1)	2.1 (1)	2.274	108	*.025	0.38
Enthusiasm and Motivation for Teaching	2.8 (1)	3.2 (2)	-1.193	108	.236	-0.23
Ability to Show Care and Concern for Students	3.7 (3)	3.2 (2)	1.409	103	.162	0.26
Work Ethic	3.7 (3)	3.7 (4)	-.031	108	.975	0.00
Reflective Practice of Teaching Performance	5.4 (5)	5.7 (6)	-.480	108	.632	-0.13
Ability to Get along with Colleagues	6.6 (7)	5.4 (5)	2.615	108	*.010	0.53
Personality	6.4 (6)	6.5 (7)	-.219	108	.827	-0.04
Verbal Ability	7.3 (8)	6.8 (8)	1.558	108	.111	0.29
Creativity	7.5 (9)	7.6 (9)	-.297	108	.767	-0.05
Appearance	8.9 (10)	9.5 (10)	-1.872	91	.064	-0.34

Note. *Significant at the $p < .05$ level. Rank order of mean scores in parentheses.

responded their districts did not have policies and procedures for hiring teachers. A summary of this information is provided in Table 16.

Independent sample *t* tests revealed no significant differences for personal teacher characteristics in the mean scores of principals who reported they led the interview and

Table 14. Differences for Personal Teacher Characteristics Ranked by North Dakota Public School Principals When Hiring Teachers Based on School District Type.

Personal Characteristics	Mean Class A (n=44)	Mean Class B (n=66)	*t*	*df*	*p*	Effect Size *d*
Ability to Interact Positively with Students	2.5 (1)	2.6 (1)	-.438	108	.662	-0.05
Enthusiasm and Motivation for Teaching	3.2 (2)	2.7 (2)	1.424	108	.157	0.28
Ability to Show Care and Concern for Students	3.6 (3)	3.4 (3)	.483	108	.630	0.10
Work Ethic	3.6 (3)	3.8 (4)	-.488	108	.627	-0.05
Reflective Practice of Teaching Performance	5.4 (5)	5.6 (5)	-.477	108	.634	-0.09
Ability to Get along with Colleagues	6.1 (6)	6.1 (6)	-.050	108	.960	0.00
Personality	6.3 (7)	6.5 (7)	-.383	108	.703	-0.09
Verbal Ability	7.1 (8)	7.2 (8)	-.287	108	.775	-0.06
Creativity	7.6 (9)	7.5 (9)	.244	108	.808	0.05
Appearance	9.3 (10)	9.0 (10)	.764	108	.446	0.17

Note. *Significant at the $p < .05$ level. Rank order of mean scores in parentheses.

selection process to those who did not when making recommendations for teacher hires in their schools. A summary of these findings is presented in Table 17.

A one-way ANOVA was used to test for the level of significance for mean score differences and position of the principal. A significant difference was found for the

Table 15. Differences for Personal Teacher Characteristics Ranked by North Dakota Public School Principals When Hiring Teachers Based on Principal/Superintendent Dual Role.

Personal Characteristics	Mean Yes Supt. (n=12)	Mean No Supt. (n=98)	*t*	*df*	*p*	Effect Size *d*
Ability to Interact Positively with Students	1.8 (1)	2.7 (1)	-2.912	36	*.006	-0.49
Enthusiasm and Motivation for Teaching	3.8 (4)	2.8 (2)	1.896	108	.061	0.58
Ability to Show Care and Concern for Students	2.6 (2)	3.6 (3)	-1.725	108	.087	-0.53
Work Ethic	3.7 (3)	3.7 (4)	-.064	108	.949	0.00
Reflective Practice of Teaching Performance	5.3 (5)	5.6 (5)	-.608	19	.550	-0.13
Ability to Get along with Colleagues	6.8 (7)	6.0 (6)	1.109	108	.270	0.34
Personality	6.5 (6)	6.4 (7)	.157	108	.876	0.04
Verbal Ability	7.7 (9)	7.1 (8)	1.917	25	.067	0.34
Creativity	7.0 (8)	7.6 (9)	-.903	108	.368	-0.29
Appearance	9.8 (10)	9.0 (10)	3.805	84	*.000	0.45

Note. *Significant at the $p < .05$ level. Rank order of mean scores in parentheses.

personal teacher characteristic verbal ability, $F(4,105) = 2.558$, $p = .043$. Results revealed that junior high/middle school principals ($M = 5.2$) considered verbal ability to be significantly higher than high school principals ($M = 7.8$). Note- No elementary

Table 16. Differences for Personal Teacher Characteristics Ranked by North Dakota Public School Principals When Hiring Teachers Based on Whether Principals' Districts Have Policies and Procedures for Hiring Teachers.

Personal Characteristics	Mean Yes Pol/Pro (n=54)	Mean No Pol/Pro (n=55)	*t*	*df*	*p*	Effect Size *d*
Ability to Interact Positively with Students	2.6 (1)	2.6 (1)	-.175	107	.862	0.00
Enthusiasm and Motivation for Teaching	3.0 (2)	2.9 (2)	.321	107	.749	0.06
Ability to Show Care and Concern for Students	3.6 (3)	3.4 (3)	.519	107	.605	0.10
Work Ethic	3.7 (4)	3.7 (4)	-.015	107	.988	0.00
Reflective Practice of Teaching Performance	5.6 (5)	5.4 (5)	.343	107	.732	0.09
Ability to Get along with Colleagues	6.2 (6)	6.1 (6)	.046	107	.749	0.04
Personality	6.4 (7)	6.4 (7)	-.188	107	.852	0.00
Verbal Ability	7.2 (8)	7.0 (8)	.769	107	.444	0.11
Creativity	7.5 (9)	7.5 (9)	-.115	107	.909	0.00
Appearance	9.0 (10)	9.2 (10)	-.477	107	.635	-0.11

Note. *Significant at the $p < .05$ level. Rank order of mean scores in parentheses.

through high school (K-12) principals responded to the survey. A summary of these findings is provided in Tables 18 and 19.

Table 17. Differences for Personal Teacher Characteristics Ranked by North Dakota Public School Principals When Hiring Teachers Based on Whether Principals Lead the Interview and Selection Process.

Personal Characteristics	Mean Yes Lead Process (n=54)	Mean No Lead Process (n=55)	*t*	*df*	*p*	Effect Size *d*
Ability to Interact Positively with Students	2.5 (1)	2.7 (1)	-.654	108	.515	0.11
Enthusiasm and Motivation for Teaching	3.1 (2)	2.7 (1)	1.140	108	.257	0.22
Ability to Show Care and Concern for Students	3.4 (3)	3.8 (3)	-1.077	108	.264	-0.16
Work Ethic	3.6 (4)	4.0 (4)	-1.019	108	.310	-0.21
Reflective Practice of Teaching Performance	5.6 (5)	5.4 (5)	.358	108	.721	0.09
Ability to Get along with Colleagues	6.1 (6)	6.3 (6)	-.396	108	.693	-0.09
Personality	6.1 (6)	7.0 (8)	-1.865	108	.065	-0.40
Verbal Ability	7.3 (8)	6.8 (7)	1.221	108	.225	0.28
Creativity	7.5 (9)	7.6 (9)	-.215	108	.830	-0.05
Appearance	9.2 (10)	8.8 (10)	1.049	52	.299	0.22

Note. *Significant at the $p < .05$ level. Rank order of mean scores in parentheses.

Research Question 5: What are North Dakota public school principals' perceptions of the interviewing and selection process during teacher hiring?

Part four of the survey was used to answer this question. The principals were asked to choose from a six-point (1 = Strongly Disagree to 6 = Strongly Agree) Likert-

Table 18. Means for Personal Teacher Characteristics Ranked by North Dakota Public School Principals When Hiring Teachers Based on Principals' Position.

	Mean Elementary (n=64)	Mean Junior/Middle (n=5)	Mean High School (n=22)	Mean Elem/JHMS (n=4)	Mean JHMS/HS (n=15)
Ability to Interact Positively with Students	2.6 (1)	2.4 (2)	2.8 (2)	2.8 (1)	2.3 (1)
Enthusiasm and Motivation for Teaching	3.2 (2)	3.0 (3)	2.6 (1)	2.8 (1)	2.3 (1)
Ability to Show Care and Concern for Students	3.3 (3)	4.2 (4)	3.4 (3)	3.0 (3)	4.4 (4)
Work Ethic	3.7 (4)	1.8 (1)	3.8 (4)	4.3 (4)	3.9 (3)
Reflective Practice of Teaching Performance	5.7 (5)	4.8 (5)	5.5 (5)	5.8 (6)	5.5 (5)
Ability to Get Along with Colleagues	5.9 (6)	6.2 (8)	6.2 (6)	7.0 (7)	6.8 (7)
Personality	6.6 (7)	6.4 (9)	6.3 (7)	5.0 (5)	5.9 (6)
*Verbal Ability	7.1 (8)	*5.2 (6)	*7.8 (9)	7.3 (8)	6.9 (8)
Creativity	7.7 (9)	6.0 (7)	7.3 (8)	7.3 (8)	7.5 (9)
Appearance	9.1 (10)	7.0 (10)	9.3(10)	10.0 (10)	9.4 (10)

*Significant at the $p < .05$ level. No elementary through high school (K-12) principals responded to the survey. Rank order of mean scores in parentheses.

Table 19. ANOVA for Personal Teacher Characteristics Ranked by North Dakota Public School Principals When Hiring Teachers Based on Principals' Position.

Personal Characteristics	Source	*df*	*SS*	*MS*	*F*	*p*
Ability to Interact Positively with Students	Between groups	4	2.562	.640	.180	.948
	Within groups	105	374.356	3.565		
	Total	109	376.918			
Enthusiasm and Motivation for Teaching	Between groups	4	12.794	3.198	1.037	.392
	Within groups	105	323.761	3.083		
	Total	109	336.555			
Ability to Show Care and Concern for Students	Between groups	4	19.035	4.759	1.293	.278
	Within groups	105	386.428	3.680		
	Total	109	405.464			
Work Ethic	Between groups	4	20.060	5.015	1.397	.240
	Within groups	105	377.040	3.591		
	Total	109	397.100			
Reflective Practice of Teaching	Between groups	4	2.930	.733	.128	.972
	Within groups	105	602.533	5.738		
	Total	109	605.464			

Table 19 cont.

Personal Characteristics	Source	*df*	*SS*	*MS*	*F*	*p*
Ability to Get Along with Colleagues	Between groups	4	14.155	3.539	.638	.636
	Within groups	105	582.064	5.543		
	Total	109	596.218			
Personality	Between groups	4	14.494	3.623	.658	.622
	Within groups	105	577.906	5.504		
	Total	109	592.400			
Verbal Ability	Between groups	4	29.853	7.463	2.558	*.043
	Within groups	105	306.365	2.918		
	Total	109	335.218			
Creativity	Between groups	4	14.875	3.719	.867	.487
	Within groups	105	450.615	4.292		
	Total	109	465.491			
Appearance	Between groups	4	27.377	6.844	2.262	.067
	Within groups	105	317.714	3.026		
	Total	109	345.091			

Note. *Significant at the $p < .05$ level. No elementary through high school (K-12) principals responded to the survey.

type scale of agreement. Survey items 1 through 8 asked principals to report the extent they agreed with teacher hiring statements regarding the interview. Survey items 9 through 15 asked principals to report the extent they agreed with teacher hiring process statements regarding teacher selection.

For the survey items regarding principals' perceptions of the interviewing process during teacher hiring, 96.4% of the principals agreed they prepared questions for the interview prior to conducting the interview, determined the desired qualities an applicant would have prior to the interview, and that during the interview applicants should be asked to describe how they have responded to situations in the past. Approximately 86% of principals agreed using a scoring guide or rubric to record the responses of the candidates during the interview as effective and 69.1% of principals agreed they had appropriate training in the interviewing process. Also, 24.6% of the principals agreed they had candidates teach a sample lesson as part of the interview. Additionally, 9.9% of principals agreed the use of icebreaker or warm-up questions at the beginning of an interview should be omitted. Finally, 2.7% of principals agreed committee members should refrain from taking written notes during the interview.

For the survey items regarding principals' perceptions of the selection process during teacher hiring, 88.1% of principals agreed the best candidate available for the teaching position was hired regardless of extra-curricular openings that may be vacant in their school districts. Additionally, 81.8% of principals agreed the teacher hiring recommendation that goes to the school board for approval should be made at the building level, whereas 18.2% of principals agreed the teacher hiring recommendation that goes to the school board for approval should be made at the central office level.

Slightly more than 39% of the principals agreed teachers in their districts were hired late in the summer due to vacancies created by retiring and non-returning teachers, and 9.1% of principals agreed less experienced teachers were hired in their school districts due to a limited budget. Additionally, 5.4% of principals agreed they had a limited influence when it came to recommending the teachers they wanted to hire to the school board. Finally, 4.5% of principals agreed district policies and procedures hindered teacher hiring in their schools. A summary of these findings is provided in Table 20.

Summary

The purpose of this study was to determine the extent to which North Dakota public school principals consider research-based professional and personal teacher characteristics when hiring teachers. Additionally, this study sought to determine North Dakota public school principals' perceptions regarding teacher hiring practices – the interviewing and teacher selection process. Two hundred twenty (220) North Dakota public school principals were identified and invited to participate in this study. One hundred ten (110) survey responses were received. Results of this study were presented in Chapter IV. The study summary, conclusions, discussions, and recommendations based on the study findings are provided in Chapter V.

Table 20. North Dakota Public School Principals' Perceptions of the Interviewing and Selection Process During Teacher Hiring. Average Scores for Survey Questions. (1=Strongly Disagree, 6=Strongly Agree)

Questions		% of Agreement	*M*	*SD*
Interviewing				
Q 1	I prepare questions for the interview prior to conducting the interview.	96.4	5.5	1.0
Q 2	I determine the desired qualities an applicant would have in order to fulfill the job responsibilities before interviewing begins.	96.4	5.2	.8
Q3	During the interview, applicants should be asked to describe how they have responded to situations in the past.	96.4	5.3	.9
Q4	Committee members should refrain from taking written notes during the interview.	2.7	1.8	.8
Q5	Using a scoring guide or rubric to record the responses of the candidates during the interview is effective.	85.5	4.3	1.0
Q6	The use of icebreaker or warm-up questions at the beginning of an interview should be omitted.	9.9	2.3	1.0
Q7	As part of the interview, I have candidates teach a sample lesson.	24.6	2.6	1.2
Q8	I have appropriate training in the interviewing process.	69.1	4.0	1.2

Table 20 (cont.)

Questions		% of Agreement	*M*	*SD*
Selection				
Q 9	In my school district, less experienced teachers are hired due to a limited budget.	9.1	1.9	1.0
Q10	The teacher hiring recommendation that goes to the school board for approval should be made at the central office level.	18.2	2.5	1.6
Q11	The teacher hiring recommendation that goes to the school board for approval should be made at the building level.	81.8	4.8	1.2
Q12	I have limited influence when it comes to recommending to the school board the teachers I want to hire.	5.4	1.6	.9
Q13	In my district teachers are hired late in the summer due to vacancies created by retiring and non-returning teachers.	39.1	3.1	1.2
Q14	District policies and procedures hinder teacher hiring in my school.	4.5	1.8	.8
Q15	The best candidate available for the teaching position is hired regardless of extra-curricular openings that may be vacant in my school district.	88.1	4.8	1.1

CHAPTER V

SUMMARY, CONCLUSIONS, DISCUSSIONS, AND RECOMMENDATIONS

Chapter V concludes the research study. This chapter has three sections. The first section presents a summary of this study. The second section presents conclusions and discussions from this study and data analysis. Based on results from this study, the third section includes a discussion of recommendations for practice and recommendations for further study.

Summary of the Study

The purpose of this study was to determine the extent to which North Dakota public school principals consider research-based professional and personal teacher characteristics when hiring teachers. Additionally, this study sought to determine North Dakota public school principals' perceptions regarding teacher hiring practices – the interviewing and teacher selection process. Two hundred twenty principals from 75 North Dakota public school districts were invited to take a survey. One hundred ten principals responded. Principals were mostly male, from elementary schools, and from Class B School Districts.

The majority of the principals indicated they did not also serve as a superintendent. Less than half the principals reported their districts had written policies and/or procedures for hiring teachers and approximately 68% indicated they led the interview and selection process when making teacher recommendations for their schools.

In addition, the highest ranked professional teacher characteristic by North Dakota public school principals was the ability to engage students in learning. The lowest ranked professional teacher characteristic by principals was college or university attended.

A significant difference was found when comparing mean scores of male and female principals for professional teacher characteristics. Male principals marked instructional planning and preparation knowledge significantly higher than female principals when considering teachers for hire. A significant difference was also found when comparing principals' professional characteristics by school district type. Principals from North Dakota Class B public school districts marked technology knowledge significantly higher than principals from North Dakota Class A school districts. Moreover, principals from North Dakota Class B public school districts marked college or university attended significantly higher than the mean score for principals from North Dakota Class A public school districts.

No statistically significant differences for professional characteristics were found when comparing the mean scores of principals based on the principal/superintendent dual role. Also, no significant differences for professional teacher characteristics were found when comparing the mean scores of principals who reported that their districts had policies and procedures for hiring teachers to principals who responded that their districts did not have policies and procedures for hiring teachers. Furthermore, no significant differences for professional teacher characteristics were found when comparing the mean scores of principals who reported they led the interview and selection process when making recommendations for teacher hires for their schools to principals who indicated they did not lead the interview and selection process when making recommendations for

teacher hires in their schools. Finally, no statistically significant differences were found when comparing principals by position.

The personal teacher characteristic ranked the highest by the principals when considering teachers for hire was the ability to interact positively with students. The lowest ranked personal teacher characteristic by principals was appearance. Female principals marked the ability to interact positively with students significantly higher than male principals. In addition, female principals marked the ability to get along with colleagues significantly higher than male principals. No significant differences were found for the personal teacher characteristics when the Class A North Dakota public school principals' mean scores were compared to the Class B North Dakota public school principals' mean scores. A significant difference was found for the personal teacher characteristic ability to interact positively with students. Principals with the dual role of superintendent marked ability to interact positively with students significantly higher than principals with no superintendent dual role. Additionally, a significant difference was found for the personal teacher characteristic appearance. Principals with no superintendent dual role marked appearance significantly higher than principals with the dual role of superintendent.

No significant differences for personal teacher characteristics were found when comparing the mean scores of principals who reported their districts had policies and procedures for hiring teachers to principals who responded that their district did not have policies and procedures for hiring teachers. Also, no significant differences for personal teacher characteristics were found when comparing the mean scores of principals who reported they led the interview and selection process when making recommendations for

teacher hires for their schools to principals who indicated they did not lead the interview and selection process when making recommendations for teacher hires in their schools. Finally, a significant difference was found for verbal ability. Junior high/middle school principals marked verbal ability significantly higher than high school principals.

For the interviewing process, the level of agreement ranged from 96.4% of principals agreeing they prepared questions for the interview prior to conducting the interview, determined the desired qualities for applicants prior to interviewing, and applicants should be asked to describe how they have responded to situations in the past to 2.7% agreeing committee members should refrain from taking written notes during the interview. For principals' perceptions of the selection process during teacher hiring, the level of agreement ranged from 88.1% agreeing the best candidate available for the teaching position was hired regardless of extra-curricular openings that may be vacant in their school districts to 4.5% agreeing district policies and procedures hindered teacher hiring in their schools.

Conclusions and Discussions

Research Question 1: When considering teachers for hire, how do North Dakota public school principals rank a list including five research-based and five non-research based professional teacher characteristics?

Overall, North Dakota public school principals, regardless of subgroup, value teacher candidates who possess research-based professional characteristics. The top five professional teacher characteristics ranked in this study by North Dakota public school principals when considering teachers for hire are all supported in the research as effective

teacher characteristics (Danielson, 2007; Marzano, 2007; Stronge, 2007; Stronge, Tucker, & Hindman, 2004).

The remaining professional teacher characteristics ranked 6 through 10 by North Dakota public school principals in this study have insufficient support from the research for improving student achievement. For example, technology knowledge, ranked 6th by the principals, may be an important skill for a teacher, but Stronge (2007) did not specifically identify the characteristic as being an effective teacher characteristic. Also, teaching experience, ranked 7th overall by the principals, does have some support from researchers, but experience appears to have a limit for improving student achievement after five years (Lauer et al., 2005; Rivkin et al., 2005; Rockoff, 2004; Stronge, 2007). Cumulative grade point average in college/university ranked 8th, honors and achievements earned ranked 9th, and the college or university attended ranked 10th by principals were not identified in the research of Stronge (2007) or Danielson (2007) as being important factors for student achievement.

Hiring teachers is an important aspect of a principal's job and the results of this study revealed North Dakota public school principals take into consideration research-based effective professional teacher characteristics when they hire teachers. Principals who value professional teacher characteristics aligned with positive student achievement are more likely to hire effective teachers for their students and schools. Effective principals are also more able to identify those candidates with research-based professional characteristics aligned with positive student achievement.

Research Question 2: When considering teachers for hire, what are the significant differences in how North Dakota public school principals rank a list including five research-based and five non-research based professional teacher characteristics?

Results from the statistical tests show there are few differences in how North Dakota public school principals ranked the professional teacher characteristics. Although the subgroups of principals ranked the top five professional teacher characteristics in this study in different order, all of the characteristics are supported in the research as effective. For instance, male principals ($M = 3.8$) marked instructional planning and preparation knowledge significantly higher than female principals ($M = 4.5$). Although the difference was statistically significant, female principals supported Stronge's (2007) research by ranking instructional planning and preparation knowledge 5th overall and ahead of non-research based characteristics.

On the other hand, Class B school district principals ($M = 5.7$) marked technology knowledge significantly higher than principals from Class A school districts ($M = 6.3$). Both Class A and Class B school district principals ranked technology knowledge as 6th overall, below the five research-based characteristics on the survey. Additionally, principals from North Dakota Class B public school districts ($M = 8.9$) marked college or university attended significantly higher than principals from North Dakota Class A public school districts ($M = 9.6$). The college or university attended characteristic is not supported in Stronge's (2007) research for improving student achievement, and was ranked last by both groups.

The gender, type of school district, position, and whether the principal serves a dual role as superintendent should not make a difference in the ability of principals being

able to identify effective professional teacher characteristics. In addition, the role of the principal in the interview and selection process and school districts' hiring policies and procedures should not make a difference in the ability of principals being able to identify research-based professional teacher characteristics. The findings are encouraging for North Dakota's students since North Dakota principals, regardless of subgroup, reported they value research-based professional teacher characteristics when considering teachers for hire.

Research Question 3: When considering teachers for hire, how do North Dakota public school principals rank a list including five research-based and five non-research based personal teacher characteristics?

Generally, the results of this study revealed North Dakota public school principals take into consideration research-based personal characteristics when hiring teachers. Four of the top five ranked personal teacher characteristics by the principals are supported by research as effective (Stronge, 2007). Work ethic, a non-research based characteristic in the survey, was ranked 4th by principals. Evidence from this study suggests that the principals in North Dakota public schools value work ethic in teacher candidates. The valuing of work ethic as a desired characteristic for teachers should, however, not be a surprise. North Dakota is primarily a rural state with a cultural reputation for its citizens having a strong work ethic, working hard, and having pride in a job well done. Even so, the principals need to realize that hard work alone does not guarantee improved student achievement.

Effective teachers work hard while doing the right work necessary for student success. For example, effective teachers efficiently organize and manage the classroom.

Effective teachers work to manage student behaviors so they can plan and implement instruction. Also, effective teachers work hard to maximize instructional time while expecting all students to achieve at a high level. Effective teachers work to employ a variety of instructional strategies. Furthermore, effective teachers engage students in learning and monitor students' achievement progress. Effective teachers know how and when to respond to students' needs. Teaching requires work ethic. However, doing the right kind of work is what is truly important to increase student success.

Verbal ability may be one teacher characteristic that is taken for granted by North Dakota principals. Verbal ability, a research-based characteristic, was ranked as the 8th highest personal teacher characteristic by principals even though several researchers correlate verbal ability highly with teacher quality and positive student achievement (Boyd et al., 2006; Harris, 2006; Lauer et al., 2005; Stronge, 2007). Verbal ability was ranked lower than personality and ability to get along with colleagues with little to no research specifically related to improved student achievement.

The ability to speak clearly may be an expectation that North Dakota principals have for all teachers without giving much thought to how important the characteristic contributes toward student success. Teachers deliver directions and explanations for students with effective verbal ability. Relationships with students, peers, and parents are enhanced through appropriate verbal communication. North Dakota public school principals should evaluate the verbal ability characteristic when considering teacher candidates for hire as it is highly correlated with improved student achievement.

Research Question 4: When considering teachers for hire, what are the significant differences in how North Dakota public school principals rank a list including five research-based and five non-research based personal teacher characteristics?

Results from this study show there are some differences in how the subgroups of North Dakota public school principals rank the personal teacher characteristics when considering teachers for hire. When looking at the subgroups, North Dakota public school principals appear to look for teachers with work ethic, a non-research based characteristic, more than verbal ability and reflective practice of teaching performance, both research-based characteristics. Also, several subgroups of North Dakota public school principals seem to value the ability to get along with colleagues and personality in teacher candidates. Although personality and the ability to get along with colleagues are desirable characteristics for developing relationships, improving communication among colleagues and administration, and improving the climates in schools, Stronge's research (2007) does not directly link each of these specific characteristics to improving student achievement.

Results from the statistical tests show female principals ($M = 2.1$) marked ability to interact positively with students as a significantly higher personal teacher characteristic than male principals ($M = 2.8$). Kruger's (2008) research supports female principals with the high ranking (1st overall) of ability to interact positively with students. However, in the current study, male principals also ranked the ability to interact positively with students 1st overall. Stronge's research (2007) supports both groups of principals with their high ranking of the characteristic as effective. Additionally, for the ability to get along with colleagues, female principals (M = 5.4) ranked the characteristic 5th overall

while male principals (M = 6.6) ranked it 7th. Kruger's (2008) research supports females marking the ability to get along with colleagues higher than males. However, the ability to get along with colleagues was not an effective personal teacher characteristic identified in Stronge's research (2007).

Both male and female principals need to understand the importance of interacting positively with students. Evidence from this study suggests that female principals value this characteristic more than male principals. This finding may be due to females having a stronger relationship-oriented style (Kruger, 2008). The results from this study also show female principals value teachers with the ability to get along with colleagues more than males. Female principals valuing the ability to get along with colleagues may be the result of wanting to develop strong relationships with people. Although the ability to get along with colleagues is crucial for a healthy work school environment, North Dakota principals, regardless of gender, should realize there are other important personal teacher characteristics aligned with research and effective teaching.

Principals with the dual role of superintendent (M = 1.8) marked ability to interact positively with students as a significantly higher personal teacher characteristic than principals with no superintendent dual role (M = 2.7). Both groups ranked ability to interact positively with students 1st. Interacting positively with students is a research-based effective personal teacher characteristic (Stronge, 2007). In addition, a significant difference was found for the personal teacher characteristic appearance. Principals with no superintendent dual role (M = 9.00) marked appearance as a significantly higher personal teacher characteristic than principals with the dual role of superintendent

(M = 9.83). Appearance is not linked to positive student achievement and was ranked 10th overall by both groups.

Dual role principals/superintendents are usually from school districts with smaller student enrollments. Principal/superintendents valuing positive interactions with students higher than principals with no dual role may be due to the opportunity to interact with individual students more frequently and knowing students by name in a smaller school setting. Additionally, many smaller school districts in North Dakota maintain one school plant with the elementary, middle, and high school under one roof. The principal/superintendent in a one building school is more likely to interact with students across all grade levels. North Dakota principals from larger schools and districts need to consider the extra effort required to promote positive interactions with all students.

It is noteworthy that principals with no dual role as superintendent marked appearance significantly higher than principals with the dual role of superintendent. Principals who also serve the role of superintendent may have taken more human resource education and training when taking coursework to fulfill the education requirements for a superintendent credential or to satisfy the knowledge requirement needed in their role as a superintendent. Due to additional education and training, principal/superintendents may be more aware of potential bias towards appearance than principals with no dual role when making teacher-hiring decisions. Appearance is a characteristic unrelated to how well a teacher performs their job. North Dakota principals need to evaluate personal biases they might have toward appearance and teachers they consider for hire. Hiring committees consisting of multiple people can help reduce bias and provide varied input (Mason & Schroeder, 2010).

Finally, junior high/middle school principals marked verbal ability significantly higher than high school principals. Junior high principals (M = 5.20) ranked verbal ability 6th while high school principals (M = 7.82) ranked it 9th overall. Junior high/middle school principals marked verbal ability higher than any other subgroup. Verbal ability is an effective personal teacher characteristic (Stronge, 2007) because clear communication is important for clearly expressing essential skills and concepts and interacting positively with students (Danielson, 2007; Darling-Hammond & Youngs, 2002; Rotherham et al., 2008). As mentioned before, North Dakota principals from all levels need to evaluate verbal ability of teachers when considering teachers for open positions.

Research Question 5: What are North Dakota public school principals' perceptions of the interviewing and selection process during teacher hiring?

The outcomes for principals' perceptions of the interviewing process in this study resulted in high percentages of agreement – 90% and higher for several questions on the survey. Additionally, almost 70% of principals agreed they had appropriate training in the interviewing process. Interviewing is a complicated process and training is necessary to ensure interviews are done properly and legally (Norton, 2008; Peterson, 2002; Stronge & Hindman, 2006), yet 30% of principals indicated they did not have adequate training. Stronge and Hindman (2006) indicated interview training can result in principals making better hiring decisions. North Dakota principals with the responsibility of interviewing need to be provided training in effective interviewing to ensure that the process is done properly and legally.

Also, 24.6% of the principals agreed they had candidates teach a sample lesson as part of the interview. While teaching ability is necessary for student achievement, the hiring process is a complex and time-consuming process (Mason & Schroeder, 2010). The time for observing sample teaching lessons may not be available for North Dakota public school principals. If time is not available to observe candidates teach in live settings or present sample lessons during the interview, principals from North Dakota should, at a minimum, ask job-related questions, such as how they would perform in various classroom instructional scenarios.

For principals' perceptions of the selection process during teacher hiring, many of the findings were unexpected. For instance, 5.4% of North Dakota public school principals in this study indicated they had a limited influence when it came to recommending the teachers they wanted to hire to the school board, and only 4.5% of principals agreed district policies and procedures hindered teacher hiring in their school. Additionally, North Dakota public school principals agreed the best candidate available for the vacant position is hired in their districts.

In many school districts in the United States, principals have little authority in final teacher placement decisions (National Council on Teacher Quality, 2010), yet most North Dakota public school principals reported they had an influence in who was hired in their schools. North Dakota is a rural state with many small enrollment school districts and limited numbers of administrators available in those districts for human resource functions. Thus, many public school districts in North Dakota lack a human resource department. Besides the superintendent, the principal is the other key administrator in rural school districts. North Dakota public schools principals indicating they had a stake

in recommending teachers they want to hire to the school board may be the result of superintendents needing the hiring help of principals.

Schools across the country lose out on quality teachers due to hiring timelines, negotiated agreements, personnel management policies, and budget timetables (Liu & Johnson, 2006; Stotko et al., 2007; Strunk & Grissom, 2010). Even so, North Dakota principals reported they were not as negatively impacted by district policies or the limits of budgets as reported in the research. Few principals saw district policies and procedures as hindering teacher hiring in their schools. Yet, a little over 39% of principals from this study have to hire teachers late in the summer due to vacancies created by retiring and non-returning teachers. Liu and Johnson (2006) stressed the importance of districts hiring teachers early in order to have the best opportunity for hiring the most effective teachers before they accept positions elsewhere. School boards and districts have the power to limit having to hire teachers late in the hiring season. Principals in this study may not have considered staff decisions to retire or not return late in the summer as a district policy or procedure that can be controlled (Behrstock & Coggshall, 2009; Stotko et al., 2007). North Dakota school districts need to evaluate their hiring policies and procedures and identify any barriers for timely hiring.

Although North Dakota public school principals generally indicate they have a positive influence in the teacher hiring process, more North Dakota principals need to lead the interview and selection process for their schools. More than 30% of North Dakota public school principals in this study indicated they did not lead the interview and selection process for their schools. If principals are going to lead the necessary staffing changes for improved schools, they need more authority for leading the hiring process in

their schools. To effectively lead change and facilitate reform for improved schools, principals need to play a substantial role in the teacher interview and selection process (Mason & Schroeder, 2010; National Council on Teacher Quality, 2010).

Less than 50% of North Dakota public school principals reported being from districts with hiring policies and procedures. To be in compliance with federal and state laws associated with teacher hiring, school districts need to have updated policies and procedures in place (Norton, 2008; Thune & Martin, 2010). North Dakota public school districts, school boards, and school district leaders need to develop written policies and procedures for teacher hiring. If school districts have hiring policies and procedures, training needs to be provided for principals and all staff responsible for hiring teacher candidates. When school districts have hiring policies and procedures in place, a guide is available for administrators attempting to meet the districts' mission, vision, and goals for hiring effective teachers.

Finally, survey questions 10 and 11 provided noteworthy results. When asked if the teacher hiring recommendation should be made at the building level, 81.8% of principals agreed that the decision should be made at the building level while 18.2% of principals agreed that the teacher hiring recommendation that goes to the school board for approval should be made at the central office level. Principals may have been conflicted with these two questions since they agreed at a certain level for both the principal and central office having an influence over the teacher hiring recommendation that goes to the school board. The North Dakota public school principals who also serve as superintendents may have been at odds with whether the recommendation should come from the building or central office level. Another explanation may be that many school

districts have policy that requires the hiring recommendation to come from central office administration to the school board.

In summary, teacher hiring is one of the most important activities done in school districts. An effective teacher hiring process results in the hiring of the best available teachers for the students and the entire school. The results of this study found that North Dakota public school principals' practices are aligned with Stronge's (2007) research-based effective teacher characteristics when they consider teacher candidates for hire. Also, principals reported that the teacher hiring process in North Dakota is conducted well by teacher interviewing and selection done according to best practices.

On the other hand, according to principals in this study, many school districts (50.5%) appear to lack policies and procedures for the hiring process. Likewise, a little more than 30% of North Dakota principals indicated they did not have appropriate training in the interviewing process. Also, more than 30% of the principals in this study do not lead the hiring process in their schools. Finally, a little more than 39% of principals from this study have to hire teachers late in the summer due to vacancies created by retiring and non-returning teachers.

Recommendations

Recommendations for Practice

Based on the analysis of the data and review of the literature for this study, the following recommendations are presented:

1. School boards and superintendents should:
    - ensure hiring policies and procedures are developed, updated, and shared with principals.

- provide leadership for principals in proper implementation of the district's hiring policies and procedures.
- give principals more authority in the teacher interviewing and hiring decisions for their buildings.
- provide principals ongoing professional learning opportunities in the interviewing and selection of teachers based on legal issues, research-based hiring methods, and research-based effective professional and personal teacher characteristics.
- stay informed of methods available for successfully recruiting an adequate pool of applicants and efficiently screening candidates to ensure the best teachers are identified for interviews.
- evaluate the effectiveness of teacher hiring practices and proactively identify barriers and make changes for selecting highly effective teachers.
- consider tools such as *Qualities of Effect Teachers* by Stronge (2007) for identifying effective teacher characteristics during the interview.

2. Principals should:
    - stay abreast of current research on effective teacher characteristics and teacher hiring methods.
    - provide appropriate and thorough training on interviewing best practices for interview committee members.
3. Principal preparation programs should provide training for prospective principals in the teacher hiring process.

4. Prospective teachers should study the research on the professional and personal characteristics principals consider when hiring teachers.
5. Teacher preparation programs should:
    - educate prospective teachers on teaching behaviors and characteristics principals value when hiring teachers.
    - update prospective teachers on principals' perceptions of the interview and selection process.

Recommendations for Further Study

1. Research should be conducted throughout the United States to learn the effective teacher characteristics principals view as important when considering teachers for hire.
2. Research should be conducted throughout the United States to learn principals' perceptions of the teacher hiring process.
3. This study should be replicated and use qualitative methodology including personal interviews so principals can provide their perspective on the teacher hiring process.
4. This study should be replicated and include private and charter school principals' perceptions of the teacher hiring process and important effective teacher characteristics.

APPENDICES

Appendix A
Survey

Teacher Hiring Practices of Principals Survey

Part I
This questionnaire is being sent to North Dakota principals to gather data on the research-based effective teacher characteristics viewed as most important when considering teachers for hire. Furthermore, the questionnaire is designed to gather data on North Dakota principals' perceptions of the teacher hiring process. The survey data are confidential. Any participation in this questionnaire is voluntary. If you decide to participate, your submission of the completed survey will indicate your consent to participate. Thank you for your consideration and thank you in advance for helping with this important study. This survey should take approximately fifteen minutes.

Gender

- ☐ Male
- ☐ Female

Type of District

- ☐ Class A District as defined by the North Dakota High School Activities Association for basketball
- ☐ Class B District as defined by the North Dakota High School Activities Association for basketball

Position

Please select the choice for your area of responsibility as a Principal per the North Dakota Department of Public Instruction's MIS03 Personnel form.

- ☐ Elementary School Principal
- ☐ Junior High/Middle School Principal
- ☐ High School Principal
- ☐ Elementary School & Junior High/Middle School Principal
- ☐ Junior High/Middle School & High School Principal
- ☐ Elementary thru High School Principal

In addition to Principal, I also serve as Superintendent of Schools

- ☐ Yes
- ☐ No

My school district has written policies and/or procedures for hiring teachers.

- ☐ Yes
- ☐ No

In my school district I lead the interview and selection process when making recommendations for teacher hires in my school(s).

- ☐ Yes
- ☐ No

Part II PROFESSIONAL TEACHER CHARACTERISTICS

When considering teacher candidates for hire please rank the importance of the following PROFESSIONAL teacher characteristics
Please rank order the following from 1 to 10 with 1 being most important

- Classroom management and organization skills
- Technology knowledge
- College or university attended
- Ability to engage students in learning
- Cumulative GPA on college/university transcript
- Years of classroom teaching experience
- Instructional planning and preparation knowledge
- Ability to implement a variety of instructional strategies
- Honors and achievements earned
- Ability to respond to student needs and abilities

Part III PERSONAL TEACHER CHARACTERISTICS

When considering teacher candidates for hire please rank the importance of the following PERSONAL teacher characteristics
Please rank order the following from 1 to 10 with 1 being most important

- Work ethic
- Ability to interact positively with students
- Enthusiasm and motivation for teaching
- Ability to get along with colleagues
- Verbal ability
- Appearance
- Creativity
- Reflective practice of teaching performance
- Personality
- Ability to show care and concern for students

Part IV TEACHER HIRING PROCESS

Please rate how much you agree with the following statements regarding the teacher hiring process as they would apply to your school(s) in your school district

1. Strongly Disagree
2. Disagree
3. Slightly Disagree
4. Slightly Agree
5. Agree
6. Strongly Agree

1. I prepare questions for the interview prior to conducting the interview

2. I determine the desired qualities an applicant would have in order to fulfill the job responsibilities before interviewing begins.

3. During the interview, applicants should be asked to describe how they have responded to situations in the past.

4. Committee members should refrain from taking written notes during the interview.

5. Using a scoring guide or rubric to record the responses of the candidates during the interview is effective

6. The use of icebreaker or warm-up questions at the beginning of an interview should be omitted

7. As part of the interview, I have candidates teach a sample lesson.

8. I have appropriate training in the interviewing process.

9. In my school district, less experienced teachers are hired due to a limited budget.

10. The teacher hiring recommendation that goes to the school board for approval should be made at the central office level.

11. The teacher hiring recommendation that goes to the school board for approval in my school district should be made at the building level

12. I have limited influence when it comes to recommending to the school board the teachers I want to hire

13. In my district teachers are hired late in the summer due to vacancies created by retiring and non-returning teachers.

14. District policies and procedures hinder teacher hiring in my school

15. The best candidate available for the teaching position is hired regardless of extra-curricular openings that may be vacant in my school district

Appendix B
Letter of Consent North Dakota Public School Administrators/Superintendents

University of North Dakota Research Study

TITLE:	Teacher Hiring Practices of Principals
PROJECT DIRECTOR:	David Saxberg, Doctoral Student, University of North Dakota
PHONE #	701-320-1052
DEPARTMENT:	Educational Leadership
TO:	North Dakota School Administrators/Superintendents

My name is David Saxberg, and I am an elementary principal in North Dakota. As part of the requirements for my doctoral degree through the University of North Dakota, I am conducting research for my doctoral dissertation. With your permission, I will be inviting the principal(s) in your school and/or school district to be in this research study about the teacher hiring practices of principals in North Dakota.

The purpose of this study will be to learn the research-based effective teacher characteristics viewed as most important by North Dakota principals when considering teachers for hire and to learn the perceptions of North Dakota principals of the teacher hiring process. Principals from North Dakota will be surveyed to examine the principals' perceptions of the teacher hiring process. Also, the research-based effective teacher characteristics viewed as most important by North Dakota principals when assessing teacher candidates for hire will be analyzed. The information gained from the study will add to the knowledge base for the teacher hiring process.

Principals will be informed that their participation is entirely voluntary and without penalty. Each school principal will be invited to participate in an online survey which takes about fifteen minutes to complete. If the participants are uncomfortable with a question they may choose not to answer the question and may stop taking the survey at any time. There are no foreseeable risks for participating in the study.

Confidentiality will be maintained. Any information that is obtained in this study and that can be identified with your school and/or school district and you will remain confidential and will be disclosed only with your permission or as required by law.

The records of this study will be kept private to the extent permitted by law. In any report about this study that might be published, your school and/or school district and you will not be identified. Your study record may be reviewed by Government agencies, and the

University of North Dakota Institutional Review Board. The data from the study and the consent forms will be stored in separate locked file cabinets in the primary investigator's office for a minimum of three years following the completion of the study.

Your school and/or school district and you will not be paid for granting permission for this research study, nor will any costs be assessed for the research study. Although you may not benefit personally from being in this study, I hope that, in the future, school administrators might benefit from this study because the information gained will add to the knowledge base for the teacher hiring process.

If you have any questions about this project, please contact me via email (david.j.saxberg@sendit.nodak.edu) or phone (701)-320-1052. You may also contact my advisor Dr. Brenda Kallio via email (brenda.kallio@und.edu) or phone (701)777-3249.

If you have questions regarding the rights of human participants in research or if you have any concerns or complaints about the research, you may contact the University of North Dakota Institutional Review Board at (701) 777-4279.

Please reply via e-mail to **david.j.saxberg@sendit.nodak.edu** if you grant permission for me to send an invitation to the principals of your school and/or school district to take the survey. With the response please include:

Your name,
Position,
The name and address of the school or school district

Your e-mailed response indicates that this research study has been explained to you, that your questions have been answered, and that you agree for the principal(s) in your school and/or school district to receive an invitation to take part in this study. Please keep a copy of this informed consent for your records.

Thank you in advance for your response. If you wish to receive a copy of the results, please send an email request to David Saxberg at the address listed above and below.

David Saxberg
david.j.saxberg@sendit.nodak
701-320-1052

Appendix C
Letter of Consent North Dakota Public School Principals

University of North Dakota Research Study

TITLE:	Teacher Hiring Practices of Principals
PROJECT DIRECTOR:	David Saxberg, Doctoral Student, University of North Dakota
PHONE #	701-320-1052
DEPARTMENT:	Educational Leadership
TO:	North Dakota School Principals

My name is David Saxberg and I am an elementary principal in North Dakota. As part of the requirements for my doctoral degree through the University of North Dakota, I am conducting research for my doctoral dissertation. As part of the requirements for my doctoral degree through the University of North Dakota I am conducting research for my doctoral dissertation. You are invited to be in this research study about the teacher hiring practices of principals in North Dakota because of your role as a school principal.

The purpose of this study will be to learn the research-based effective teacher characteristics viewed as most important by North Dakota principals when considering teachers for hire and to learn the perceptions of North Dakota principals of the teacher hiring process. Principals from North Dakota will be surveyed to examine the principals' perceptions of the teacher hiring process. Also, the research-based effective teacher characteristics viewed as most important by North Dakota principals when assessing teacher candidates for hire will be analyzed. The information gained from the study will add to the knowledge base for the teacher hiring process.

Your participation is entirely voluntary and without penalty. You will be invited to participate in an online survey which will take about fifteen minutes to complete. Your responses will not be tracked in any manner which could identify you. If you are uncomfortable with a question you may choose not to answer the question and may stop taking the survey at any time. There are no foreseeable risks for participating in the study.

Confidentiality will be maintained. Any information that is obtained in this study and that can be identified with your school and/or school district and you will remain confidential and will be disclosed only with your permission or as required by law.

The records of this study will be kept private to the extent permitted by law. In any report about this study that might be published, you will not be identified. Your study record may be reviewed by Government agencies, and the University of North Dakota

Institutional Review Board. The data from the study and the consent forms will be stored in separate locked file cabinets in the primary investigator's office for a minimum of three years following the completion of the study.

You will not be paid for being in this research study, nor will you have any costs for being in this research study. Although you may not benefit personally from being in this study, I hope that, in the future, other people might benefit from this study because the information gained from the study will add to the knowledge base for the teacher hiring process, specifically in the hiring practices of principals and the teacher characteristics principals value most when assessing teachers to be hired.

If you have any questions about this project, please contact me via email (david.j.saxberg@sendit.nodak.edu) or phone (701)-252-0468. You may also contact my advisor Dr. Brenda Kallio via email (brenda.kallio@und.edu) or phone (701)777-3249.

If you have questions regarding the rights of human participants in research or if you have any concerns or complaints about the research, you may contact the University of North Dakota Institutional Review Board at (701) 777-4279.

Your submission of the online survey will indicate your consent to participate in this study.
You may access the survey by clicking on the link:
http://edu.surveygizmo.com/s3/506474/Teacher-Hiring-Questionnaire

Please keep a copy of this informed consent for your records.

Thank you for your consideration and thank you in advance for helping with this important study. If you wish to receive a copy of the results, please send an email request to David Saxberg at the address listed above.

David Saxberg
david.j.saxberg@sendit.nodak
701-320-1052

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