Factors Affecting Job Satisfaction and Retention of Beginning Teachers

By

Karen S. Myers Giacometti

Committee:

David J. Parks, Chairperson

Susan G. Magliaro

Stephen R. Parson

Travis W. Twiford

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Blacksburg, Virginia

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ABSTRACT

In this national study, a combination of factors that affect teacher satisfaction and retention were examined. Domains that discriminate between teachers who choose to stay or leave the teaching profession were investigated. A researcher-developed questionnaire was administered to 450 randomly selected first, second, and third year teachers. Survey items were related to domains affecting teacher satisfaction and retention. A demographic section was included to collect background information. A principal components analysis resulted in the emergence of domains that were used in the final analysis. They are: *emotional factors; school and community support; instructional support; preparation in teaching curriculum, managing students, and assessing students; collaboration; compensation and benefits; motivation to teach; and culture shock.*

Eleven percent of the respondents chose to leave the profession. Results of the discriminant analysis indicated that the best predictor in choosing to leave or stay in the teaching profession was *emotional factors* followed by *compensation and benefits* and *culture shock*. The analysis was used to determine if the individuals in the two groups were correctly classified based on their scores on the eight predictor variables. The number of cases correctly classified was 91.4 percent.

DEDICATION

To my Mom & Dad

For your unconditional love, support, and guidance throughout my life.
You have always been and always will be my heroes. Thank you for the family that means more
to me than anything in this world.

ACKNOWLEDGEMENTS

I thank my colleagues and mentors who have encouraged me to pursue the administrative arena of educational leadership --- who often times told me that I have the qualities to be a leader, and who told me I have a gift of working with at-risk children. It is because of them that I entertained the thought of pursuing graduate level courses.

Thanks to my boss, my mentor, and my friend --- Rosa Wells-Garris. The support and encouragement through this process has meant so much to me. You made me a part of your team, and that is what helped make my world wonderful.

Dr. David Parks who, I know, had more faith in me than I had in myself. You were always ready for questions and, of course, always had the answers. Your demeanor always had a calming affect on me and helped me to be realistic in setting my own goals and expectations. Your high level of expectations made me work harder than I have ever worked in my life --- thanks for your knowledge, expertise, and encouragement during this process.

Without the love for my students and my desire to help children succeed in their "world," which at times may seem impossible, I probably would not have pursued my goals. I hope that my work someday will change the life of a young person who thinks that success is out of their reach. It is those children that I want to be a role model for, and to tell them that you "can do" if you really want "to do!" Thanks again to everyone in my life!

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CHAPTER 1
THE PROBLEM

Obtaining and retaining quality teachers is a continuing concern that is facing educational leaders at all levels. There is a growing debate about whether the concern lies with a shortage of teachers entering the field or with retaining teachers once they begin their careers (Hull, 2004; Ingersoll, 2001; National Commission on Teaching and America's Future, 2003; National Education Association, 2004). Satisfaction and retention of new teachers is the focus of this study. The theoretical framework was derived from a review of literature on job satisfaction and retention of new teachers. Research was examined from the last several decades.

Context of the Study

Several reports in the 1980's implied that the performance of our nation's schools was mediocre in comparison to the rest of the world (Carnegie Forum on Education and the Economy, 1986; The Holmes Group, 1986; National Commission on Excellence in Education, 1983). As a result of these reports, school improvement became a priority in this country. Reaching for higher standards in our educational institutions was the foundation of the most popular reports.

More recently, federal and state mandates have resulted in changes in educational institutions. The *No Child Left Behind Act (NCLB)* that became law January 8, 2002, requires states to assess the skills and abilities of students, particularly in reading and math (Ohnemus, 2002). Annual assessments are to be given to determine baseline data that will be used to hold students, teachers, and principals accountable for teaching a predetermined curriculum. The purpose of the NCLB, which includes visions of both President Bush and former Secretary

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of Education Rod Paige, is to raise the educational performance of all children. The NCLB legislation includes the following provisions to reach that goal:

- Higher educational standards.

- Annual testing of children to measure progress toward achieving the higher standards.

- Analysis of test data annually to ensure that students are progressing.

- Rewards (and penalties) aimed at schools where students make (or do not make) "adequate yearly progress" (AYP). (U.S. Department of Education, 2004, p. 1)

All fifty states now have a student-testing program (Boser, 2001). These testing programs and their associated accountability are causing educational leaders to take a closer look at who is hired to teach children and what it takes to keep "highly qualified" individuals in classrooms. NCLB requires all states to guarantee that all teachers are "highly qualified" in all core academic subjects (English, reading or language arts, mathematics, science, foreign language, civics and government, economics, arts, history, and geography) (Ohnemus, 2002, p. 8). "Highly qualified" is defined as those teachers who have obtained full state certification, hold a bachelor's degree, and have demonstrated subject area competence (U.S. Department of Education, 2004, p. 9). With the NCLB requirements, we cannot afford to lose our valuable teaching force to other professions.

<center>Research on Teacher Retention</center>

Retaining teachers once they enter the profession helps to keep classrooms filled with qualified teachers. Presently, we are not retaining enough teachers that thought they were interested in a teaching career (Thomas B. Fordham Foundation, 1999). If teachers stayed in

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classrooms, the demand for new teachers would be reduced (Murnane, 1992). What is causing them to leave?

Substantial resources from all levels of educational institutions are spent on preparing and training people for the teaching profession. Andrew & Schwab (1995) reported that 30 percent of the resources are used on individuals who do not stay in teaching (p. 44). The amount that was spent on new teachers more than doubled between the 1996-97 and the 1997-98 school years in California's Beginning Teacher Support and Assessment Program (BTSA) (Mitchell, Scott, Hendrick, & Boyns, 1998).

Many teachers leave the profession within the first five years (Kirby & Grissmer, 1993; Mark & Anderson, 1977; National Education Association, 2004; Rabinowitz & Crawford, 1960; Schlechty & Vance, 1981). Schlechty and Vance found that first-year teachers leave at a rate of about 15 percent, and second- and third-year teachers leave at a rate of 10 percent. Rabinowitz and Crawford surveyed people who prepared for a teaching career through the New York City municipal college system. They issued a survey three times to the same group through the five years following graduation. Only 50 percent of the 1,144 respondents were still teaching at the time of the final survey. Mark and Anderson reported that of the cohort of new entrants to teaching in the St. Louis area in 1968, 40 percent did not make it beyond one year. Similarly, Kirby and Grissmer reported that approximately one-fifth leave after the first year of teaching, one-third leave after two years of teaching, and by the end of the fourth year of teaching a little more than one-half have left the field. They reported that the annual attrition rate is highest for young teachers, ages 20-24 years. The National Education Association's figures are the most recent, and they reported that about 20 percent of new teachers leave the profession during the

first three years. Too many young people who start a career in the teaching profession end up leaving, and this attrition adds to the already short supply of teachers.

Teacher retention is a very broad topic, and researchers have attacked the topic from many angles. Four of these are: (1) teacher shortage (Alt, Kwon, & Henke, 1999; Darling-Hammond & Sclan, 1996; Mason, 1961; Page & Page, 1982), (2) teacher supply (Broughman & Rollefson, 2000; Darling-Hammond, Berry, Haselkorn & Fideler, 1999; National Education Association, 1987), (3) recruitment of teachers (Clewell, Darke, Davis-Googe, Forcier, & Manes, 2000; Schulman, 1990; Stoddart, 1990), and (4) the "novice teacher" (Geer, 1966; Kirby & Grissmer, 1993; Mark & Anderson, 1977, National Education Association, 2003). A summary of research on the four themes follows.

The Shortage and Supply of Teachers

The shortage of teachers is greater at certain grade levels and in certain subjects. Cities and poor urban areas have a significant deficit of teachers (Darling-Hammond & Sclan, 1996; Mason, 1961; National Education Association, 2004). The larger number of students entering school, changes at the federal and state level causing local school districts to reduce class size, and the number of teachers retiring contribute to the shortage. Over the next decade (2000-2010) the need for newly hired public school teachers will range from 1.7 to 2.7 million (Alt et al., 1999). The need for new teachers coupled with the fact that many teachers leave the field has created unease for educational leaders.

The annual attrition rate in 2001 for teachers with different years of experience is in Figure 1.
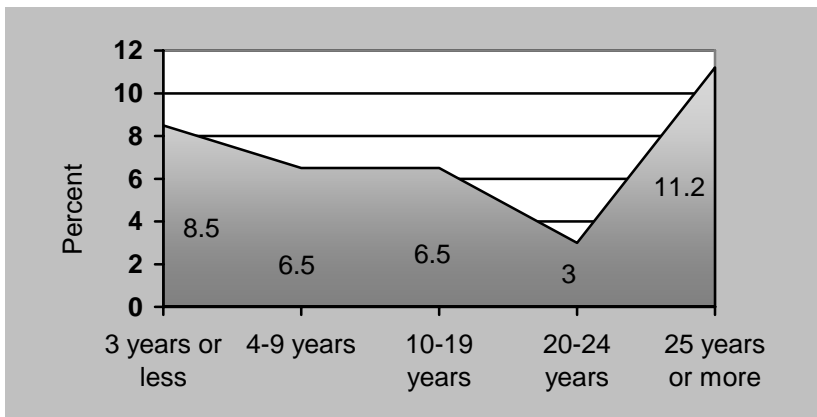
Figure 1. Percentage of teachers leaving education by years of experience between 1999-2000 and 2000-01.

Adding to the problem of the need for more teachers and the large attrition rate, the

number of college graduates entering the teaching profession has declined. The source of new

teachers has shifted. New college graduates supplied 67 percent of new teachers in the 1960's;

however, by the 1980's this same source only supplied 27 percent of the new teachers (National

Education Association, 1987). In 1991, less than 9 percent of college freshmen chose teaching as

their major (Darling-Hammond & Sclan, 1996). There was a large decrease in the number of

new teachers from 1971 to 1976 and again from 1976 to 1981. A small increase occurred

between 1981 and 1986. There was no change between 1986 and 1991, and there was another

decrease between 1991 and 1996. (Snyder & Hoffman, 2002, p. 81). Figure 2 clearly depicts the

problem of fewer people entering the profession.
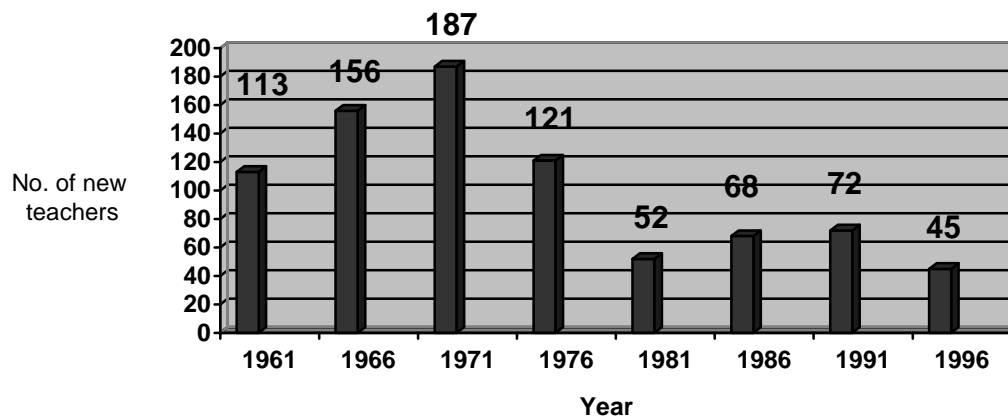
Figure 2. Number of new teachers (in thousands) entering the profession by year.

Efforts to Recruit Teachers

Recruiting more teachers into the field has been a strategy used to increase the teacher supply. States that have implemented recruitment strategies are finding that the teacher shortages are not as serious (Darling-Hammond, Berry, Haselkorn, & Fideler, 1999). Efforts have been made at the local, state, and national levels. Partnerships between colleges and school districts are one example of such efforts (Clewell et al., 2000). An objective for some programs is to attract teachers in schools that are more difficult to staff (Education Commission of the States, 2000). Evidence of such programs exists in Florida and New York (Clewell et al.).

A few examples of the major initiatives at the national level are: The Ford Foundation Teacher Education Program, the DeWitt Wallace-Reader's Digest Pathways to Teaching Careers Program, and Teach for America. The Ford Foundation Teacher Education Program exists in six states, targets minorities who are of pre-college status, and is funded by the Ford Foundation.

The Dewitt Wallace-Reader's Digest Fund Pathways to Teaching Careers Program, the largest privately supported teacher recruitment effort in the United States, has one strand that is designed specifically to serve paraprofessionals. The focus in the Teach for America program is to target recent baccalaureate degree recipients who are not education majors. It is funded privately through foundations and individuals (Clewell et al. 2000).

South Carolina, North Carolina, and California are a few states that have implemented recruitment strategies. South Carolina aims its programs at recruiting academically talented or capable high school juniors with above average interpersonal and leadership skills to enter the field of teaching (Clewell et al., 2000). North Carolina created the Teaching Fellows Program as an effort to attract and prepare high-achieving high school students for the profession (Berry, 1995). California began the California State University Teacher Diversity Programs to encourage racial and ethnic minority populations to earn teaching credentials (Clewell et al.).

The "Novice Teacher" and Attrition

New teachers should be the focal group to study when addressing the retention of teachers. Historically, beginning teachers are the most likely to leave the profession (Kirby & Grissmer, 1993; Mark & Anderson, 1977; National Education Association, 2004; Rabinowitz & Crawford, 1960; Schlechty & Vance, 1981).

Teachers, quite often, feel discouraged early in their careers. Some new teachers feel unsupported by colleagues and administrators (Ingersoll, 2001; National Commission on Teaching and America's Future, 2003), while others feel overwhelmed in their new assignment (National Education Association, 2004; O'Neill, 2004). District leaders and principals concerned with retention of new teachers must work with beginning teachers to ensure that first-year teachers remain optimistic (Chapman, 1984).

Statement of the Problem

Studying the retention of new teachers is not new. I examined studies from the l950's through 2004 to gain insight into this complicated topic. These studies that span the last several decades gave me a broad picture of this problem that is facing American education. Even though the reasons for teacher shortages and the reasons for teacher attrition may have shifted over this period, the evidence turns to the fact that there is, indeed, a problem that needs to be addressed. Children continue to fill classrooms, and the expectation is that they will be given an education that will prepare them to be productive citizens of the United States. Education officials, legislators, and parents expect "highly qualified" teachers in these classrooms.

When examining the reasons for the teacher shortage and possible solutions for retention, several questions arise: (1) Are young teachers entering the field with sufficient training? (2) Are school districts supporting new teachers through mentoring and staff development programs? (3) How does the school environment affect teacher satisfaction? (4) Are new teachers still motivated after obtaining field experience? (5) Are things happening in society to cause teachers to leave? (6) Is the pay too low or is it adequate? (7) Is the job too tough in the current social environment? (8) Are federal and state mandates causing stress and dissatisfaction? (9) Are parents and community supportive of the schools? (10) Are stress and burnout issues addressed by school administrators? These questions emerged from my review of the literature on the teacher shortage, teacher retention, teacher attrition, and job satisfaction of new teachers. The relationships between factors that affect job satisfaction and teacher retention are examined in this study. Specifically, a theory is developed and tested to identify those factors that influence teachers in making decisions to leave or stay in the profession.

The Need and Purpose of the Study

The continuing shortage makes it crucial for educators and researchers to continue to find ways to stop the flow of teachers from the profession and to retain the best teachers in classrooms (Chapman, 1984). As early as the 1950s, researchers (Chapman, 1984; data from 1946-1978); National Education Association; data every five years from 1956) began to study the importance of teacher attrition and teacher retention. During the last several decades, researchers (Boe, Bobbitt, Cook, Whitener, & Weber, 1996; Chapman & Hutchenson, 1982; Grissmer & Kirby, 1987, 1997; Huling-Austin, 1988; Ingersoll, 2001; Kirby & Grissmer, 1993; Mark & Anderson, 1977; Murnane, 1987; Murnane, Sincer, & Willett, 1988) have studied the teacher shortage and interventions that can be applied to keep "highly qualified" teachers in the profession.

My purpose for studying this topic is to add to the existing national information on the factors related to teacher job satisfaction and teacher retention. Specifically, I am reporting factors that discriminate between leavers and stayers. The findings may serve as a guide to educational practice by determining which areas of dissatisfaction need to be addressed to retain teachers. MacDonald (1999) believed there is a need for more data on teaching personnel. MacDonald and Kirby and Grissmer (1993) agreed that educational systems need to heed the correlation between teaching conditions and attrition. In summary, I studied factors that best discriminate between leavers and stayers.

Theoretical Framework

This section contains the theoretical framework for the study. The theoretical framework was developed from a review of literature on teacher retention and job satisfaction of new teachers. The factors found in the reviewed studies were organized into seven major areas that became the domains. The domains are: *(1) compensation, (2) preservice preparation, (3) external forces, (4) school culture, (5) inservice training, (6) motivation to teach, and (7) emotional factors*. Each domain is hypothesized as a driving force of job satisfaction (Bobbitt, Leich, Whitener, & Lynch, 1994; Choy, Bobbitt, Henke, Medrich, Horn, & Lieberman, 1993; Evans & Johnson, 1990; Faupel, 1992; Gaede, 1978; Harris & Associates, 1992, 2001; Luekens et al., 2004; Mantle-Bromley, Gould, McWhorter & Whaley, 2000; Mitchell et al., 1998; National Education Association, 1963; Perie & Baker, 1997), and the underlying assumption is that job satisfaction leads to teacher retention (Choy et al.; Harris & Associates, 2001; Taylor, 2004). If a teacher is satisfied with these aspects of his or her career, the decision is often made to be a stayer. If a teacher is dissatisfied with these aspects of his or her career, the decision is often made to become a leaver. The relationships between the factors in the domains and job satisfaction or teacher retention is the theoretical framework in this study. Throughout this chapter, each domain is discussed, including the effect of the domain on teacher retention or job satisfaction. Related research, theory, and commentary are provided where they are available.

A diagram of the theoretical framework is in Figure 3. A more detailed scheme of factors within the domains is in Figure 4. The review of the literature is structured around these domains. A summary of sources by domain is in Table 1. This summary includes the author's name and the date of each study.

After a brief discussion on job satisfaction, each domain is listed in a separate table that describes the studies pertaining to factors in that domain. The researcher traced studies over the last several decades to compare the factors affecting teacher satisfaction from one decade to another. The factors are in the following order: *compensation, preservice preparation, external forces, school culture, inservice training, motivation to teach, emotional factors.*

Figure 3. The factors affecting teacher job satisfaction and teacher retention.

External Forces

District Spending; Job Security; Social Issues; Attitudes of Parents, Students, Community; Parental Support; Community Support; Partnerships; Job Availability

Compensation

Salaries; Benefits; Retirement; Inequities with Level of Skills or Education Not Comparable to Other Fields; Scholarships; Tuition Reimbursement; Coupons; Relocation Costs; Signing Bonuses for Hard-to-Fill Positions

Emotional Factors

Mental Health; Enthusiasm; Stress; Burnout; Anxiety; Positive Attitude; Frustration

In-service Training

Induction Process; Mentors; Professional Development; Intensive Support; Peer Evaluations; Observations of Experienced Teachers; Portfolio

Preservice Preparation

Skills and Abilities Necessary to Teach; Knowledge of Subject Matter; Preparation for a Diverse Classroom Setting; Preparation for Organizing Tasks in Operating a Classroom; Dealing with Conflict; Student Assessment; Classroom Management; Curriculum Needs; Confidence Level to Teach; Length of Student Teaching

JOB SATISFACTION

Motivation to Teach

Desire to Work with Young People; Desire to Teach Others; Challenge of the Profession; Professional Growth; Contribution to Humanity; Making a Difference in Society; Strong Commitment; Social Status

Demographics

Gender; Age; Years of Experience; Race; Teaching Assignment; Marital Status; Salary; Stayer or Leaver; Final GPA; Route to Teaching (Traditional or Alternate); Demographics of School District (Rural, Suburban, Urban); State Employed.

NOTE. Used to describe respondents; not part of the analysis.

School Culture

Administrative Support with Discipline; Administrative Support with Helping New Teachers; Staff Involvement; Teamwork; Positive Environment; Endless Paperwork; Organization of Special Needs Population; Climate; Safety; Evaluation Process; Staff Morale

Figure 4. A summary of the factors affecting job satisfaction derived from the review of the literature.

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Table 1

Literature on Teacher Job Satisfaction or Teacher Retention by Domain, Author(s), and Date

DOMAIN	AUTHOR(S)
COMPENSATION	Balou & Podgursky, 1997; Bobbitt, Leich, Whitener, & Lynch, 1994; Boe, Bobbitt, Cook, Whitener, & Weber, 1996; Carnegie Foundation, 1990; Cascio, 1987; Chapman, 1984; Choy, Bobbitt, Henke, Medrich, Horn, & Lieberman, 1993; Darling-Hammond & Sclan, 1996; Eberhard, Reinhardt-Mondragon, & Stottlemyer, 2000; Faupel, 1992; Gritz & Theobald, 1996; Gruss, 2003; Harris & Associates, 1992, 2001; Ingersoll, 2001; Ingersoll & Alsalam, 1997; Kirby & Grissmer, 1993; Luekens, Lyter, & Fox, 2004; Murnane & Olsen, 1989b; Murnane, Sincer, & Willett, 1988; National Education Association, 1997a, 2000; Page & Page, 1982; Perie & Baker, 1997; Rickman & Parker, 1990; U.S. Department of Education, 2000
PRESERVICE PREPARATION	Adams & Dial, 1993; Allen, 2003; Andrew & Schwab, 1995; Ballou & Podgorsky, 1997; Carnegie Forum on Education and the Economy, 1986; Darling-Hammond, 2001; Darling-Hammond, Berry, Haselkorn, & Fideler, 1999; Darling-Hammond, Hudson, & Kirby, 1989; Darling-Hammond & Sclan, 1996; Eberhard, Reinhardt-Mondragon, Stottlemyer, 2000; Fleener, 1998; Gaede, 1978; Grissmer & Kirby, 1997; Harris, Camp, & Adkinson, 2003; Holmes Group, 1995; Huling, 1998; Mantle-Bromley, Gould, McWhorter, & Whaley, 2000; Moore-Johnson & Birkeland, 2003; National Commission on Teaching and America's Future, 1996; National Education Association, 1997a; Tran, Young, Mathison, & Hahn, 2000
EXTERNAL FORCES	Gritz & Theobald, 1996; Harris & Associates, 1992; Luekens, Lyter, & Fox, 2004; National Education Association, 1997a; Page & Page, 1982; Perie & Baker, 1997

Table 1 (continued).

Literature on Teacher Job Satisfaction or Teacher Retention by Domain, Author(s), and Date

DOMAIN	AUTHOR(S)
SCHOOL CULTURE	Alt, Kwon, & Henke, 1999; Bobbitt, Leich, Whitener, & Lynch, 1994; Chapman & Hutchenson, 1982; Chapman & Lowther, 1982; Darling-Hammond & Sclan, 1996; Gaede, 1978; Harris & Associates, 1992; Ingersoll, 2001; Ingersoll & Alsalam, 1997; Luekens, Lyter, & Fox, 2004; Moore-Johnson & Birkeland, 2003; National Education Association, 1997a; Page & Page, 1982; Perie & Baker, 1997; Riehl & Sipple, 1996
INSERVICE TRAINING	Choy, Bobbitt, Henke, Medrich, Horn, & Lieberman, 1993; Choy & Chen, 1998; Darling-Hammond, 2001; Darling-Hammond & Sclan, 1996; Debolt, 1992; Eberhard, Reinhardt-Mondragon, & Stottlemyer, 2000; Gaede, 1978; Giebelhaus & Bendixen-Noe, 2001; Huling-Austin, 1988; Ingersoll & Alsalam, 1997; Ingersoll & Kralik, 2004; Luekens, Lyter, & Fox, 2004; Mitchell, Scott, Hendrick, & Boyns, 1998; National Education Association, 1997b, 2003; Newcombe, 1990; Rosenholtz, 1989; U.S. Department of Education, 2000; Virginia Department of Education, 2000a, 2000b; Wildman & Niles, 1987; Wildman, Magliaro, Niles, & Niles, 1992; Wolf, 1991
MOTIVATION TO TEACH	Chapman, 1984; Chapman & Lowther, 1982; Choy, Bobbitt, Henke, Medrich, Horn, & Lieberman, 1993; Darling-Hammond & Sclan, 1996; Harris & Associates, 1992, 2001; Huberman, 1989; Kushman, 1992; Luekens, Lyter, & Fox, 2004; National Education Association, 1963, 1997a, 1997b; Page & Page, 1982
EMOTIONAL FACTORS	Abel & Sewell, 1999; Berry, 1995; Borg, Riding, & Falzon, 1991; Coates & Thoresen, 1976; Dworkin, 1985; Eberhard, Reinhardt-Mondragon, & Stottlemyer, 2000; Evans & Johnson, 1990; Farber, 1991; Friesen, 1986; Harris & Associates, 2001; Hubert, Gable, & Iwanicki, 1990; National Education Association, 1963; Owens & Mundy, 1980; Terry, 1997

Job Satisfaction

Satisfaction, as defined by Thorndike and Barnhart (1979), is the "fulfillment of conditions or desires" (p. 904). Therefore, one would expect a person is satisfied when his or her expectations or desires have been met. The 1993-94 Schools and Staffing Survey asked teachers if they were satisfied with different aspects of their work environment (administrative support and leadership, buffering and rule enforcement, cooperation among staff, adequacy of resources, and overall satisfaction). Not one area received higher than 30 percent of the teachers being satisfied (Alt et al., 1999). The *1992 Metropolitan Life Survey* (Harris & Associates, 1992) of new teachers revealed that 70 percent of second year teachers were very satisfied with working with their students, 58 percent were satisfied working with other teachers in their school, and only 25 percent indicated satisfaction with working with parents. New teachers tend to be less satisfied with their job than teachers with experience (Mertler, 2001; Harris & Associates, 2001).

Data from the National Education Association (1997b) revealed that 62.6 percent of the teachers surveyed would become a teacher again. One-fifth of the respondents stated either they probably would not or certainly would not become teachers again. These data were taken from a national sample of 1,325 public school teachers who responded to a questionnaire. Figure 5 depicts the different levels of satisfaction as measured by willingness to teach again for this group of respondents.
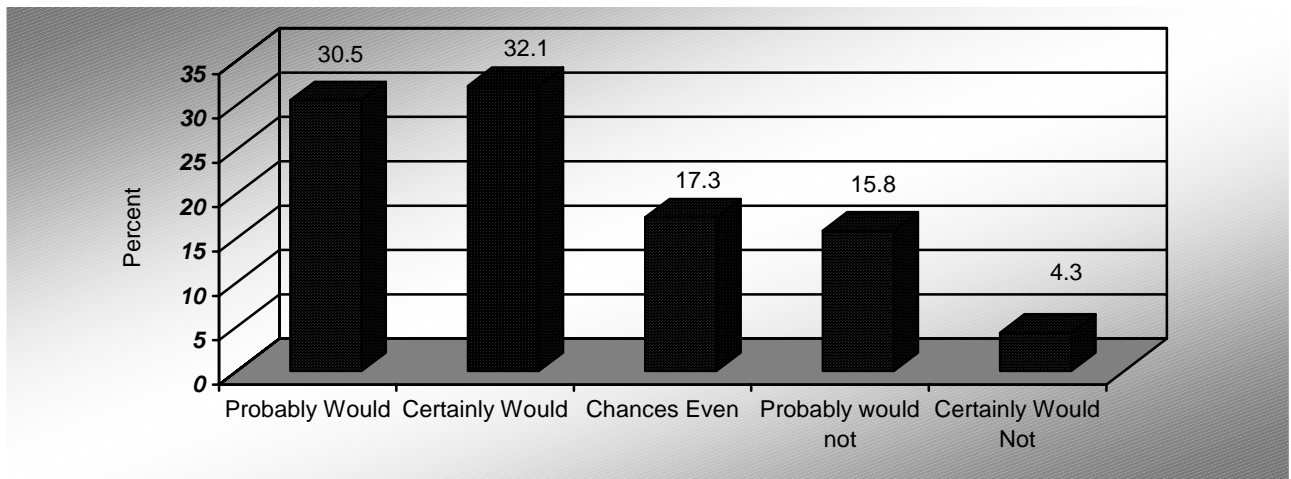
Figure 5. Teachers' satisfaction: Measured by decision to return to the profession.

The satisfaction of new teachers is an ingredient to increasing the retention rate whether

we look at the national, state, or local level. Teachers usually exit the profession if their

experience in their school and in their classroom is not satisfactory (Kirby & Grissmer, 1993).

The growth of children depends on retaining a quality teaching staff (Eberhard, Reinhardt-

Mondragon, & Stottlemyer, 2000). It is harmful to children's learning if the problem of teacher

retention is not recognized and actions taken to resolve it (Page & Page, 1982).

Job Satisfaction and Compensation

Low teacher salaries are a major factor in the high exit rate for new teachers (Carnegie Foundation, 1990; Harris & Associates, 1992; Ingersoll, 2001; Page & Page, 1982). It is clear that compensation has been a major factor in teacher turnover for some time, and remedies have not been forthcoming to do anything about it. One could predict from equity theory (Cascio, 1987) that teachers who do not believe that they are compensated equitably for the work and hardships they must endure will take action to remedy the inequity. One of these remedies is leaving the profession.

As I collected data on teachers leaving the profession, I found that teachers who leave equate higher salaries with a greater sense of professional accomplishment. In addition, wage differentials have an impact on teacher supply and teacher turnover (Darling-Hammond & Sclan, 1996; Rickman & Parker, 1990). Two factors usually relate to the discrepancy in salary: the field one chooses and the length of time one stays in the field. In 1998, the gap between teachers and non-teachers ages 22-28 was approximately $7,900, but the gap between the two groups tripled for ages 44-50. This gap was worse for teachers with advanced degrees (Education Week on the WEB, 2000). Many school districts find it difficult to recruit and retain teachers in certain fields, particularly science and math, because of the wage differentials (Murnane et al., 1988). These jobs are in demand in business and industry as well as the educational field (Murnane & Olsen, 1989b). Attempting to align teacher salaries with other fields in the early 1980's was an intervention used to make the education profession more attractive (Ballou & Podgursky, 1997).

Inner-city school districts and poor rural areas tend to lose teachers due to the difference in salary schedules. Differences in funding and market conditions are cited as reasons for causing the teacher shortage in certain geographic areas (Darling-Hammond & Sclan, 1996).

Increasing salaries is one solution to the problem. Other ideas have surfaced in the literature to help compensate for the lower salaries. Offering scholarships or loans for a teacher's education and providing stipends for teaching in fields that are typically harder to fill are two suggestions (U.S. Department of Education, 2000). Providing stipends to teach in inner-city schools and low-income rural areas is a potential solution (Kirby & Grissmer, 1993). Providing relocation costs and providing new teachers with local merchant coupons can be part of the recruitment process (Eberhard et al., 2000). Portsmouth's (a city in southeast Virginia) businesses offered discounts to their teachers as a supplement to their lagging pay. The businesses supported their teachers and tried to help out the city that only provided an average 3 percent increase in salaries in 2003. Salaries in the city were already among the lowest in the area (Gruss, 2003).

Sixteen studies were examined that included salary or benefits as a factor. Several of these studies linked salary and benefits to a teacher's satisfaction or level of commitment (Choy et al., 1993; Faupel, 1992; Ingersoll & Alsalam, 1997; National Education Association, 1997a; Page & Page, 1982; Perie & Baker, 1997). Other researchers tried to determine how salary affects the retention or attrition rate (Boe et al., 1996; Harris & Associates, 1992, 2001; Ingersoll, 2001; Luekens et al., 2004; Murnane & Olsen, 1989b;). Gritz & Theobald (1996) compared salaries between districts and salaries to jobs outside the teaching profession. They further determined how comparable salaries affect both men and women. Rickman & Parker (1990) compared salary of the teaching profession with comparable professions and found that the wage differential does, indeed, affect the supply. Chapman (1984) reported that there is an association between salary and professional success for leavers.

Compensation includes the wages and benefits paid to teachers for the performance of their duties (Gritz & Theobald, 1996; Murnane & Olsen, 1989a). These wages and benefits include, but are not limited to, the following: base salary, retirement, medical insurance, scholarships, tuition reimbursement, coupons from community organizations, relocation costs, and signing bonuses. Items 1, 4, 7, 10, and 13 on the questionnaire in Appendix A were derived from this literature and were used as the initial measures of satisfaction with *compensation*. Table 2 is a summary of the research that included factors related to the domain *compensation*.

Table 2

Synthesis of Research on Teacher Job Satisfaction or Teacher Retention and Compensation

Author	Date	Factor related to job satisfaction or teacher retention	Type of study, data source	Sample size	Findings
Page & Page	1982	Salary and fringe benefits	Survey	N = 387 pre-service teachers; N = 315 in-service teachers	Only 14% of preservice teachers and 16% of inservice teachers found salary to be encouraging. Over 70% of both groups found fringe benefits to be encouraging.
Chapman	1984	Salary	Graduates with a teaching certificate who graduated from the University of Michigan between 1946 and 1978	N = 2,933	Those who left teaching in the first five years associated salary with professional success. They reported a lower gross annual salary than those who never taught.
Murnane & Olsen	1989b	Salary	Longitudinal study of North Carolina teachers	N = 13,890	Teachers stay longer in teaching when they are paid more.
Rickman & Parker	1990	Salary (wage differentials)	March Supplement of the Current Population Survey (CPS) Stratified random sample	N = 57,000	Wage differentials influence teacher supply.
Faupel	1992	Salary	1988-89 Teacher Follow-up Survey (TFS)	N = 4,812	Only 208 respondents reported being very satisfied with salary, and 571 reported being very satisfied with benefits.
Harris & Associates, Mettropolitan Life Survey	1992	Salary	Telephone survey Teachers who began their first year of teaching in 1990-1991 school year	N = 1,000	29% of teachers planning to leave within five years cite salary as a major factor for leaving.
Choy, Bobbitt, Henke, Medrich, Horn, Lieberman	1993	Salary	Data taken from six major surveys: Schools and Staffing Survey (SASS), the National Assessment of Educational Progress (NAEP), the National Education Longitudinal Study of 1988 (NELS:88), the Common Core of Data (CCD), the Recent College Graduates Study (RCG, and the National Survey of Postsecondary Faculty (NSOPF)		Almost 60% of teachers are not satisfied with their salaries. New teachers are more satisfied with their salary than teachers with experience.

Table 2 (continued).

Synthesis of Research on Teacher Job Satisfaction or Teacher Retention and Compensation

Author	Date	Factor related to job satisfaction or teacher retention	Type of study, data source	Sample size	Findings
Bobbitt, Leich, Whitener, & Lynch	1994	Salary	1992 Teacher Followup Survey (TFS) of the 1990-91 Schools and Staffing Survey	N = 7,172	58% of stayers felt that higher salaries would encourage teachers to remain in the field.
Boe, Bobbitt, Cook, Whitener, & Weber	1996	Salary Pension benefits	1989 Teacher Follow-up Survey (TFS) of the 1987-88 Schools and Staffing Survey (SASS)	N = 3,907	Base school-year salary had the largest association with teacher turnover. Pension benefits had a lack of association with teacher status (movers and stayers).
Gritz & Theobald	1996	Salary	Survey. Career paths followed for teachers in Washington Public Schools from 1981 – 1990	N = 9,756	Female teachers stay longer when salaries are comparable to teachers in other districts. Male teachers stay longer when salaries are comparable to salaries outside the public school system.
Ingersoll & Alsalam	1997	Salary	Multilevel regression analysis	N = 7,944	Higher teacher salaries were related to higher levels of reported teacher commitment.
National Education Association	1997a	Salary	Survey NEA surveyed teachers every 5 years since 1956. Data can be compared from 1976-1996.	N = 2,164	Lack of funds and decent salaries began to appear in 1981 as one of the top six "hindrances" of the profession.
Perie & Baker	1997	Salary and benefits	1993-94 Schools and Staffing Survey (SASS) Multivariate analysis	N = 40,728 (No. of regular full-time teachers in sample, both public and private)	Teacher satisfaction had a weak relationship with salary and benefits.

Table 2 (continued).

Synthesis of Research on Teacher Job Satisfaction or Teacher Retention and Compensation

Author	Date	Factor related to job satisfaction or teacher retention	Type of study, data source	Sample size	Findings
Ingersoll	2001	Salary	1991-92 Teacher Follow-up Survey (TFS) of the 1990-91 Schools and Staffing Survey (SASS) Multiple regression	N = 6,733	Higher salaries meant that teachers were less likely to depart.
Harris & Associates, Metropolitan Life Survey	2001	Salary	Combination of telephone survey and online survey. 513 teachers were interviewed by telephone and 760 teachers were interviewed online.	N = 1,273	53% of teachers stated that higher salaries would keep them in teaching.
Luekens, Lyter, & Fox	2004	Salary or benefits	2001 Teacher Follow-up Survey (TFS) of 1999-2000 Schools and Staffing Survey (SASS)	N = 8,400	19.0% of leavers felt salary or benefits were very important in their decision to leave the profession.

Job Satisfaction and Preservice Preparation

Preservice preparation is defined as a teacher education program at a college or university that provides instruction for teacher candidates to become effective facilitators of the teaching-learning process (Darling-Hammond & Sclan, 1996; Eberhard et al., 2000; Huling, 1998). Strong teacher education programs are vital to a strong teaching force so that teachers are adequately prepared for their jobs. Strong programs can diminish the shortage and increase the retention of new teachers (Darling-Hammond, Berry, Haselkorn & Fideler, 1999; Fleener, 1998; Grissmer & Kirby, 1997).

Making changes in university programs and in state certification requirements for teachers are interventions that have been implemented to increase teacher effectiveness (Ballou & Podgursky, 1997; Darling-Hammond, 2001; Darling-Hammond & Sclan, 1996). One preservice program change is adding more time in schools with students (Carnegie Forum on Education and the Economy, 1986; The Holmes Group, 1995; National Commission on Teaching and America's Future, 1996). Other major changes in university programs include more course work and more field experience. Many teacher education programs have been lengthened to five years. Prior to the 1980's, teacher education programs consisted mainly of three and one-half years of course work followed by one term of student teaching (Huling, 1998).

Eleven studies were examined that related job satisfaction or retention to *preservice preparation*. Most of the research on *preservice preparation* tried to associate the retention rate with the route to certification (alternative or traditional certification) or the length of the certification program. Two studies had findings where teachers who prepared for teaching in an alternative certification route left at higher rates than those that prepared for teaching in a

traditional program (Harris, Camp, & Adkinson, 2003; Moore-Johnson & Birkeland, 2003).

Three studies had findings where there was no relationship between the certification route and

the length of stay in the field (Adams & Dial, 1993; Darling-Hammond, Hudson, & Kirby, 1989;

Mantle-Bromley et al., 2000). Allen (2003) reviewed 92 studies and found inadequate data to

relate the route to certification to the retention rate. Allen found the data to be inconclusive for

the relationship between the accreditation status of the teacher preparation program and the

retention rate. Andrew & Schwab (1995) examined the relationship between the length of the

program and the retention rate and found that more teachers entered and remained in the field

when they participated in a five-year program than in a four-year program. No studies were

found that examined the relationship between what teachers taught and the level of their

satisfaction. Items 16, 19, 25, and 28 (reverse-scored) on the questionnaire in Appendix A were

derived from this literature and were used as the initial measures of satisfaction with *preservice*

preparation. Table 3 is a summary of the research that included factors related to the domain

preservice preparation.

Table 3

Synthesis of Research on Teacher Job Satisfaction or Teacher Retention and Preservice Preparation

Author	Date	Factor related to job satisfaction or teacher retention	Type of study, data source	Sample size	Findings
Gaede	1978	Self-assessed knowledge on the following subscales: -knowledge on the basic methods of teaching -knowledge of the administration of public schools -knowledge on education theory and history -knowledge on methods useful in teaching slow learners -knowledge of the proper use of educational media	Survey The Professional Training Readiness Inventory (PTRI) administered in spring of 1976 to secondary teachers from University of Illinois, Urbana. English, science, and math teachers were represented as well as graduates from both field-based and campus-based programs.	N = 272	Reality shock sets in after 1st year of teaching. Teachers are dissatisfied in their self-assessed knowledge. They find gaps in their professional competencies.
Darling-Hammond, Hudson, & Kirby	1989	Alternative certification	Survey Nine programs for non-traditional recruitment, alternative certification, and retraining.	N = 482	No difference between retention rates of this population and those trained in a traditional manner.
Adams & Dial	1993	Route to certification	Data were collected for 6 ½ years, from 1985-86 school year through November 1991 Cox regression model	N = 2,452	Teachers who gained certification in the traditional way were 19% more likely to leave the district than those who went through an alternative certification program.
Andrew & Schwab	1995	Preparation for teaching. 4-year program vs. 5-year program.	Survey and comparative population study.	N = 1390 graduates from 11 universities and colleges; 7 had 5-year programs.	Teachers who participated in the 5-year program were more likely to enter and remain in the teaching field. Concluded that graduates of the 5-year program have more confidence in their preparation.

Table 3 (continued).

Synthesis of Research on Teacher Job Satisfaction or Teacher Retention and Preservice Preparation

Author	Date	Factor related to job satisfaction or teacher retention	Type of study, data source	Sample size	Findings
Fleener	1998	Increased field experience	Survey Texas elementary teachers from 3 of the largest teacher-producing universities who graduated and began their teaching career between 1993-1996.	N = 1,959	4.8% of those in the field-based program left teaching compared to 12% in the traditional program.
National Education Association	1997a	Preparation for the classroom (Training, education, and knowledge of subject matter)	Survey NEA surveyed teachers every 5 years since 1956. Data can be compared from 1976-1996.	N = 2,164	Listed in the top six as a "help" in their performance as a teacher.
Mantle-Bromley, Gould, McWhorter, & Whaley	2000	Type of preparation	Survey and comparative population study (ANOVA)	Graduates from Colorado State University had 3 options of preparation: 1) traditional; 2) program that included a one-semester professional development school (PDS) component, and; 3) 10-month post-baccalaureate program	No significant difference in relation to job satisfaction questions.
Tran, Young, Mathison, & Hahn	2000	Confidence	Survey Self-selected from a group of first and second year teachers in a large, urban, west coast school district.	N = 77	Teachers felt most confident in being sensitive to the needs of a multicultural classroom and classroom discipline. They felt less confident in use of a portfolio, arranging learning for all students, time management, and assessing student ability. Student teaching in an inner-city setting had a direct impact on teachers' confidence level. They were significantly more confident than those who student taught in other settings.

Table 3 (continued).

Synthesis of Research on Teacher Job Satisfaction or Teacher Retention and Preservice Preparation

Author	Date	Factor related to job satisfaction or teacher retention	Type of study, data source	Sample size	Findings
Allen	2003	Route to certification Accreditation of teacher preparation program	Comprehensive review of 92 studies on the education of educators		There is inadequate data to link the route to certification and retention rate. Research is inconclusive to determine if the accreditation process can be linked to retention.
Harris, Camp, & Adkinson	2003	Route to certification	Longitudinal study	$\underline{N}$ = 14,945 Followed teachers employment history from 1995 through 1999-2000 school year.	Teachers who completed the alternative certification program left the profession at higher rates than those who attended the Center for Professional Development and Technology (CPDT) and those that prepared for teaching in a Traditional Certification Program (TCP).
Moore-Johnson & Birkeland	2003	Route to certification	Interview	$\underline{N}$ = 50 New teachers in Massachusetts (1st – and 2nd – year teachers were interviewed twice during their first 3 years)	42% of teachers in the alternative certification route compared to 16% from the traditional route left teaching.

Job Satisfaction and External Forces

There are forces that affect a teacher's satisfaction that are beyond the teacher's control. In fact, these forces sometimes are beyond the control of the school and district. These outside factors are referred to as *external forces*, and can be defined as those things that could help or hinder a person as they attempt to perform their duties as a teacher. Local partnerships, minority affiliations, community organizations, parental involvement (National Education Association, 1997a; Perie & Baker, 1997), social issues and conditions, increased diversity, spending by the district (Gritz & Theobald, 1996), and job availability (Page & Page, 1982) are a few examples of *external forces*. Job security (Luekens et al., 2004; Page & Page) and social status of the profession are considered to be *external forces*. These forces may have an effect on the longevity of the teacher in the profession (Gritz & Theobald; 1996; Harris & Associates, 1992; Luekens et al.). When teachers face the different facets of their jobs, *external forces* can be important to their satisfaction. Supportive parents, attitudes of children, and spending issues may play an important role in their decision to leave or stay.

Examining studies from 1982 through 2004, it is clear that parental support has an impact on job satisfaction. Only one-fourth of teachers are satisfied with the level of parental support (Harris & Associates, 1992). Negative attitudes from the public and parents have been a negative factor since 1981 (National Education Association, 1997a). Items 6, 9, 12, and 3 and 15 (reverse-scored) on the questionnaire in Appendix A were derived from this literature and were used as the initial measures of satisfaction with *external forces*. Table 4 is a summary of the research that included factors related to the domain *external forces*.

Table 4

Synthesis of Research on Teacher Job Satisfaction or Teacher Retention and External Forces

Author	Date	Factor related to job satisfaction or teacher retention	Type of study, data source	Sample size	Findings
Page & Page	1982	Job availability and job security	Survey	387 pre-service teachers and 315 in-service teachers	45% of preservice teachers and 53% of inservice teachers reported job availability as encouraging. Slightly less that 70% of preservice teachers viewed job security as encouraging, and slightly more than 70% of inservice teachers viewed job security as encouraging.
Harris & Associates, Metropolitan Life Survey	1992	Problems (social issues) of students Parental support	Telephone survey Teachers who began their first year of teaching in 1990-1991	$N = 1000$	Only 28% of new teachers agreed that students came to school with too many problems. After one year, rose to 47% and after two years rose to 50%. Only 25% of teachers are satisfied with the level of parental support. 40% of teachers who plan to leave in the next five years cite lack of parental support as a major factor.
Gritz & Theobald	1996	School district spending, spending money on classified positions in a regular education classroom	Survey. Career paths followed for teachers in Washington public schools from 1981 – 1990	$N = 9,756$	Increasing school district spending has little or no effect on the length of time beginning teachers stay. High spending on classified positions in a general education classroom could influence a beginning teacher's decision to leave.
National Education Association	1997a	Attitude of public and parents	Survey NEA surveyed teachers every 5 years since 1956. Methods of analysis can be compared from 1976-1996.	$N = 2,164$	Negative attitudes of public and parents listed as a "hindrance" every year beginning in 1981.
Perie & Baker	1997	Parental support	1993 –94 Schools and Staffing Survey (SASS) Multivariate analysis	$N = 40,728$ (No. of regular full-time teachers in sample, both public and private)	Most satisfied teachers had more parental support.

Table 4 (continued).

Synthesis of Research on Teacher Job Satisfaction or Teacher Retention and External Forces

Author	Date	Factor related to job satisfaction or teacher retention	Type of study, data source	Sample size	Findings
Luekens, Lyter, & Fox	2004	Parental support Community support Job security	2000 – 01 Teacher Follow-up Survey (TFS) of the 1999-2000 Schools and Staffing Survey (SASS)	$\underline{N}$ = 2,800 leavers	Over one-fourth of those that left their school felt their was little support from parents.
					One-fifth of those that left their school felt there was little support from the community.
					94% of those that left their school were satisfied with the level of job security.

Job Satisfaction and School Culture

     School culture and the environment in which teachers work have a significant impact on job satisfaction (Chapman & Hutchenson, 1982; Chapman & Lowther, 1982; Gaede, 1978). Darling-Hammond and Sclan (1996) stated:

     It is clear that the shape of the teaching work force depends not only on the qualities

     and qualifications of individuals who enter, but also on how occupational and

     workplace factors affect teachers' decisions to enter, stay in, or leave the

     profession. (p. 69)

     Darling-Hammond and Sclan (1996) defined *school culture* as "the dominant ethos of the organization, its values and visions, and the everyday experiences of the school community members" (p. 86). This domain includes such factors as administrative support to the new teacher in assigning duties and workload, administrative support with discipline, staff involvement, and teachers working as a team. Overall, a positive working environment for teachers is part of the school culture. Working conditions for teachers are directly impacted by the principal's leadership style (Darling-Hammond & Sclan). This area is one that can be controlled predominantly at the district or school level. Local administrators have the power to create a favorable work environment for teachers.

     The environment that teachers work in influences a teacher's satisfaction level. Feeling like a professional where they have control over their work influences retention rates (Alt et al., 1999; Ingersoll, 2001; Ingersoll & Alsalam, 1997; Luekens et al., 2004; Moore-Johnson & Birkeland, 2003; Perie & Baker, 1997; Riehl & Sipple, 1996). Two factors in this domain that were dominant in the research were administrative support and safety or discipline issues. Items 14, 17, 20, 26, and 33 on the questionnaire in Appendix A were derived from this literature and

were used as the initial measures of satisfaction with *school culture*. Table 5 is a summary of the

research that included factors related to the domain *school culture*.

Table 5

Synthesis of Research on Teacher Job Satisfaction or Teacher Retention and School Culture

Author	Date	Factor related to job satisfaction or teacher retention	Type of study, data source	Sample size	Findings
Page & Page	1982	Working conditions	Survey	N = 387 pre-service teachers and N = 315 in-service teachers	72% of preservice teachers reported working conditions as encouraging while only 49% of inservice teachers viewed working conditions as encouraging.
Harris & Associates, Metropolitan Life Survey	1992	Administrative support	Telephone survey Teachers who began their first year of teaching in 1990-1991 school year.	N = 1,000	29% of teachers planning to leave cited lack of administrative support from administrators
Bobbitt, Leich, Whitener, & Lynch	1994	Administrative support	1992 Teacher Followup Survey (TFS) of the 1990-91 Schools and Staffing Survey	N = 7,172	One-fourth of teachers who were dissatisfied with their career cited inadequate support from administration as a main area of dissatisfaction.
Riehl & Sipple	1996	School climate (administrative support, teacher influence, autonomy, and collegiality)	1987-88 Schools and Staffing Survey (SASS) Multiple regression analysis	N = 18,695 total sample N = 1,883 (those that also responded to the follow-up survey)	Suggest that several aspects of school climate are related to teacher turnover, particularly strong administrative support and autonomy in regard to classroom policy.
Ingersoll & Alsalam	1997	Teacher autonomy, faculty influence	1990-91 Schools and Staffing Survey (SASS) Multilevel regression analysis	N = 7944	35% of schools with higher levels of reported teacher autonomy had high levels of reported teacher commitment. 26% of schools with lower levels of reported teacher autonomy had high levels of reported teacher commitment. 56% of schools with higher levels of reported faculty influence had high levels of reported teacher commitment. 15% of schools with lower levels of reported faculty influence had high levels of reported teacher commitment.
National Education Association	1997a	Administration	Survey. NEA surveyed teachers every 5 years since 1956. Data can be compared from 1976-1996.	N = 2,164	Poor administration appeared as one of the top "hindrances" in every year since 1966.

Table 5 (continued).

Synthesis of Research on Teacher Job Satisfaction or Teacher Retention and School Culture

Author	Date	Factor related to job satisfaction or teacher retention	Type of study, data source	Sample size	Findings
Perie & Baker	1997	Workplace conditions (administrative support, student behavior, school atmosphere, teacher autonomy)	1993 –94 Schools and Staffing Survey (SASS) Multivariate analysis	$\underline{N}$ = 40,728 regular full-time teachers, both public and private	Strong association between workplace conditions and job satisfaction. Higher satisfaction when teachers were less likely to be threatened by students.
Alt, Kwon & Henke	1999	Administrative support and student discipline	Schools and Staffing Survey: 1987-88 and 1993-94 Teacher Questionnaire		Not more than 30% rated administrative support and leadership as satisfactory, and not more than 20% rated student discipline as satisfactory. Percentage satisfied with either was lower in 1993-94.
Ingersoll	2001	Administrative support, student discipline, faculty influence and autonomy	1991-92 Teacher Follow-up Survey (TFS) of the 1990-91 Schools and Staffing Survey (SASS) Multiple regression	$\underline{N}$ = 6,733	Much lower turnover rates in schools that had a higher level of administrative support and fewer student discipline problems. When teachers had more influence on decision making and more autonomy, there were lower levels of turnover.
Moore-Johnson, & Birkeland	2003	Working conditions (administrative support, collegial support, and teaching load)	Interview	$\underline{N}$ = 50 New teachers in Massachusetts (1st – and 2nd – year teachers were interviewed twice during their first 3 years)	Poor working conditions and lack of administrative and collegial support were the primary reasons given for teachers leaving. Teachers who taught in a professional environment were more likely to remain in the field.
Luekens, Lyter, & Fox	2004	Student behavior, safety, workload, organization of special needs students, part of decision making in school, control of classroom, administrative support, equipment and materials	2001 Teacher Follow-up Survey (TFS) of Schools and Staffing Survey 1999-2000	$\underline{N}$ = 8,400	For Leavers and Movers: 43% were satisfied with technology and 50% were satisfied with materials and resources available. 38% felt student behavior was a problem. Almost three-fourths felt that the school's security practices were helpful. Over one-half felt that their workload was too heavy. Almost one-third felt that it was difficult to teach special needs students in regular education classes. Over one-third felt they did not have enough influence in setting policies and practices for the school. Over three-fourths were satisfied with control of their own classroom. Almost two-thirds felt supported and encouraged by administration.

Table 5 (continued).

Synthesis of Research on Teacher Job Satisfaction or Teacher Retention and School Culture

Author	Date	Factor related to job satisfaction or teacher retention	Type of study, data source	Sample size	Findings
Luekens, Lyter, & Fox	2004	Teachers who left were asked to compare their new job to that of teaching: General work conditions Safety Control over own work Administrative support	2001 Teacher Follow-up Survey (TFS) of Schools and Staffing Survey 1999-2000	N = 8,400	50.9% of leavers felt general work conditions were better outside of teaching field. 59.5% of leavers felt safety was no different outside of teaching field. 65.2% of leavers felt control over own work was better outside of teaching field. 46.8% felt support from administrators was better outside of teaching field.

Job Satisfaction and Inservice Training

      Inservice training refers to the learning one is exposed to after accepting the role of being a teacher. Darling-Hammond and Sclan (1996) defined *inservice training* as the "programs that formally socialize them into teaching" (p. 75), and Eberhard et al. (2000) defined *inservice training* as "facilitating a teacher's progression toward effectiveness" (p. 4). This knowledge can be obtained through a variety of methods that was discussed in the literature. Helping a beginning teacher become effective in the classroom is the purpose of *inservice training* (Newcombe, 1990), and this training should be designed to help newcomers stay in the profession (Rosenholtz, 1989). Creating a journal of the experiences one encounters everyday in the classroom helps the new teacher provide connections between what was taught at the university level and real teaching (Wolf, 1991). Receiving help from an experienced teacher through observations and conferences provides the new teacher support in the first couple years of teaching (Wildman & Niles, 1987; Wildman, Magliaro, Niles, & Niles, 1992; Virginia Department of Education, Division of Teacher Education and Licensure, 2000a). School- and district-wide professional development programs are used to help teachers develop their skills and abilities while becoming effective facilitators of the teaching-learning process (Choy & Chen, 1998; U.S. Department of Education, 2000).

      Gaede (1978) supported the concept that new teachers needed to have a period of transition that provides support during the first couple years of teaching. Today, there are more first-year teachers participating in programs that formally socialize them into teaching. Darling-Hammond and Sclan (1996) reported an increase of new teachers participating in some form of inservice training programs. Choy et al. (1993) found that approximately 50 percent of new

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teachers are involved in some form of *inservice training* that provides them with training that helps them become more effective in the classroom.

Legislation in twenty-five states requires school districts to develop a professional development plan for teachers (Darling-Hammond, 2001). Over half the states are in the process of implementing some type of training or support system for new teachers (Giebelhaus & Bendixen-Noe, 2001). In Virginia, $2.75 million was allocated to support mentoring programs during the 2000-2002 biennium (Virginia Department of Education, Division of Teacher Education and Licensure, 2000b). California and Connecticut were among the first to fund mentor programs. Initially, these programs focused more on evaluating the new teacher rather than on providing support. Based on data from the implementation of these programs, conclusions were drawn that teachers needed support and guidance in gaining higher self-confidence in the classroom (Darling-Hammond & Sclan, 1996).

One might ask, "Why spend time and money in programs that are only geared to the new teacher?" Darling-Hammond and Sclan (1996) stated, "If investments are made in the beginning of the teaching career for induction support and pretenure evaluation, the costs of continually recruiting and hiring new entrants to replace the 40 percent to 50 percent who leave in the first few years should decline" (p. 91). Investing in new teachers by providing the much needed help up front will pay off in the long run (National Education Association, 2003). Debolt (1992) stated, "If the process of training new teachers can be made less traumatic and destructive, perhaps we can reduce the extremely high attrition rates for teachers during their first five years" (p. ix).

The experience of real teaching cannot be taught at the university level. Support through the first couple of years of the new teacher's profession can increase satisfaction levels and

retention rates (Ingersoll & Kralik, 2004; Mitchell et al., 1998). In 1996, only 18.5 percent of the teachers in the National Education Association (1997b) survey, *Status of the American Public School Teacher, 1995-96,* responded positively about the support they were receiving from their colleagues.

In 1988, Huling-Austin recommended that the relationship between training for new teachers and retention rates or satisfaction levels be further investigated. From the mid-nineties to the present more research has been provided. Researchers (Ingersoll & Alsalam, 1997; Ingersoll & Kralik, 2004; Mitchell et al., 1998) are finding that programs designed to help the new teacher are positively impacting retention rates and job satisfaction levels. Items 5, 8, 11, 30 and 2 (reverse-scored) on the questionnaire in Appendix A were derived from this literature and were used as the initial measures of satisfaction with *inservice training*. Table 6 is a summary of the research that included factors related to the domain *inservice training*.

Table 6

Synthesis of Research on Teacher Job Satisfaction or Teacher Retention and Inservice Training

Author	Date	Factor related to job satisfaction or teacher retention	Type of study, data source	Sample size	Findings
Huling-Austin	1988	Teacher inservice	Synthesis of findings from previous data-based research	17 studies met the pre-determined criteria	How much teacher inservice programs have influenced retention rates is not well documented; however, some programs are having the desired effect to retain teachers. Topic needs additional investigation.
Ingersoll & Alsalam	1997	Effectiveness of assistance for newcomers	1990-91 Schools and Staffing Survey (SASS) Multilevel regression analysis	N = 7,944	43% of schools with higher levels of effective assistance had high commitment. 20% of schools with low levels of effective assistance had high commitment.
National Education Association	1997b	Professional development	Survey NEA surveyed teachers every 5 years since 1956. Data can be compared from 1976-1996.	N = 2,164	77% of teachers participated in professional development that was sponsored by their district.
Mitchell, Scott, Hendrick, & Boyns	1998	New teacher support program	Survey. Administered to teachers in all 34 California's Beginning Teacher Support and Assessment Programs. Includes 3 years of data with emphasis on the 1998 survey	N = 8,184	Teachers gave high estimates of their own career satisfaction. Overall, the BTSA program is valuable for beginning teachers.
Ingersoll & Kralik	2004	Inservice and mentoring programs	Review of 150 empirical studies of inservice and mentoring programs	10 studies met the predetermined criteria	The studies reviewed support that mentoring programs particularly have a positive impact on teacher retention.
Luekens, Lyter, & Fox	2004	Professional development	2001 Teacher Follow-up Survey (TFS) of the 1999-2000 Schools and Staffing Survey (SASS)	N = 8400	Less than one-fourth were satisfied with professional development opportunities.

Job Satisfaction and Motivation to Teach

　　Motivation to teach refers to one's feelings about the teaching profession. Some factors are: desire to work with young people, feel stimulated to teach others, and feel efficacious and motivated in the classroom (Darling-Hammond & Sclan, 1996; Huberman, 1989; National Education Association, 1997a, 1997b); feel challenged in the profession and see opportunities for professional growth (Chapman & Lowther, 1982; Darling-Hammond & Sclan); strong commitment to the field of education (Chapman, 1984). In addition, how others perceive the role of the teacher in the community is in this domain.

　　Motivational factors help people make the decision to enter the field. Some people believe that by providing their service they will be contributing to humanity. Their position as a teacher is a challenge, and helping young people learn and succeed brings them joy. People who feel challenged by their work are more apt to persist in and have a greater satisfaction with their employment (Chapman & Lowther, 1982). They believe they can make a difference, and that keeps them motivated to stay in the profession.

　　Teachers generally are drawn to the profession for reasons other than extrinsic factors. As far back as 1960 teachers reported satisfaction because they wanted to help children (National Education Association, 1963). More recent studies still indicate a high level of commitment because teachers are satisfied in helping children and making a difference (Harris & Associates, 1992; Kushman, 1992; Luekens et al., 2004; National Education Association, 1997a). In 2000, over one-half of teachers who left the profession felt that the challenge, prestige, and advancement opportunities are better outside of the teaching field (Luekens et al.). Items 18, 24, 27, 29, and 35 on the questionnaire in Appendix A were derived from this literature and were

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used as the initial measures of satisfaction with *motivation to teach*. Table 7 is a summary of the

research that included factors related to the domain *motivation to teach.*

Table 7

Synthesis of Research on Teacher Job Satisfaction or Teacher Retention and Motivation to Teach

Author	Date	Factor related to job satisfaction or teacher retention	Type of study, data source	Sample size	Findings
National Education Association	1963	Helping children	Survey	$\underline{N}$ = 12,098	Satisfaction reported in seeing the growth and development of children and a sense of reward in helping children.
Page & Page	1982	Contribution to humanity, social status	Survey	387 pre-service teachers and 315 in-service teachers	90% of preservice teachers and 85% of inservice teachers reported contribution to humanity as encouraging. 54% of preservice teachers and 44% of inservice teachers reported social status as encouraging.
Chapman	1984	Commitment to teaching	Graduates with a teaching certificate who graduated from the University of Michigan between 1946 and 1978	$\underline{N}$ = 2,933	Those who stayed in teaching reported a higher level of commitment.
Choy, Bobbitt, Henke, Medrich, Horn, & Lieberman	1993	Enjoy working with children	Data taken from six major surveys: Schools and Staffing Survey (SASS), the National Assessment of Educational Progress (NAEP), the National Education Longitudinal Study of 1988 (NELS:88), the Common Core of Data (CCD), the Recent College Graduates Study (RCG), and the National Survey of Postsecondary Faculty (NSOPF)		Almost one-third of teachers in 1987 became teachers because they enjoy working with children.
Kushman	1992	Commitment	Survey Teachers from 63 elementary and middle schools – one large urban district in northwestern US Discriminant validity correlations and comparative case studies	$\underline{N}$ = 750	Teacher commitment to school was strongly associated to job satisfaction.
Harris & Associates, Mettropolitan Life Survey	1992	Making a difference	Telephone survey Teachers who began their first year of teaching in 1990-1991 school year	$\underline{N}$ = 1,000	83% of teachers felt they could make a difference before their careers and only 71% after one year.
Harris & Associates, Metropolitan Life Survey	2001	Enjoy working with students	Combination of telephone survey and online survey. 513 teachers were interviewed by telephone and 760 teachers were interviewed online.	$\underline{N}$ = 1,273	"Enjoy working with students" was top reason given for job satisfaction (22%).

Table 7 (continued).

Synthesis of Research on Teacher Job Satisfaction or Teacher Retention and Motivation to Teach

Author	Date	Factor related to job satisfaction or teacher retention	Type of study, data source	Sample size	Findings
National Education Association	1997b	Interest in children and teaching	Survey NEA surveyed teachers every 5 years since 1956. Data can be compared from 1976-1996.	N = 2,164	Listed first from 1976-1991 and then moved to second in 1996 as a "help" in their performance as a teacher.
Luekens, Lyter, & Fox	2004	Professional growth	2001 Teacher Follow-up Survey (TFS) of the 1999-2000 Schools and Staffing Survey (SASS)	N = 8,400	Only one-fourth were pleased with opportunities for professional advancement.
Luekens, Lyter, & Fox	2004	Teachers who left were asked to compare their new job to that of teaching. Intellectual challenge, professional prestige, opportunity for advancement	2001 Teacher Follow-up Survey (TFS) of the 1999-2000 Schools and Staffing Survey (SASS)	N = 8,400	51.8% of leavers felt intellectual challenge was better outside teaching field. 52.7% of leavers felt professional prestige was better outside teaching field. 53.9% of leavers felt opportunities for advancement were better outside teaching field.

Job Satisfaction and Emotional Factors

The mental health of a teacher relates to job satisfaction. Both positive and negative factors cause various degrees of satisfaction. Positive factors are enthusiasm and a high level of energy when teaching in the classroom. Negative factors are stress, burnout, and anxiety (Terry, 1997). Negative factors hinder the performance of a teacher and reduce satisfaction.

Anxiety, stress, and burnout can affect a teacher's ability to create an environment conducive to learning. Burnout most often occurs for those teachers who are very dedicated and committed to their careers. They tend to work long, intense hours to achieve their goals (Farber, 1991). For teachers to remain enthusiastic year after year, the principal must implement strategies that will enhance the mental health of the teaching staff (Eberhard et al., 2000; Terry, 1997).

Terry (1997) included five suggestions for principals to use with teachers. They are positive feedback, high standards, opportunities for professional growth, support systems, and increased parental and community involvement. Coates and Thoresen (1976) indicated the mental health of a teacher might be more important than a teacher's knowledge of the subject matter and methods of teaching.

Anxiety is a concern with beginning teachers and can result in a negative effect on thousands of students across the country (Coates & Thoresen, 1976). New teachers have very high expectations, and burnout results when reality is not constant with those expectations (Terry, 1997). Teacher burnout is a cause of attrition and must be dealt with to lengthen the time that teachers remain in the profession (Berry, 1995; Dworkin, 1985; Terry).

Items 21 and 23, 31, 32, and 34 (reverse-scored) on the questionnaire in Appendix A were derived from this literature and were used as the initial measures of satisfaction with

emotional factors. Table 8 is a summary of the research that included factors related to the

domain *emotional factors.*

Table 8

Synthesis of Research on Teacher Job Satisfaction or Teacher Retention and Emotional Factors

Author	Date	Factor related to job satisfaction or teacher retention	Type of study, data source	Sample size	Findings
National Education Association	1963	Strain or tension	Survey	$\underline{N}$ = 12,098	67.4% reported feeling little or moderate stain or tension in their work.
Owens & Mundy	1980	Burnout	1978-79: One public school system in Georgia polled a random sample of its teachers.		Widespread dissatisfaction by teachers – source is teacher burnout.
Dworkin	1985	Burnout	Survey: Data collected in the Houston public schools between 1977 and 1982. Exit data were collected from those who quit teaching during the five year period.	$\underline{N}$ = 3,500	Best single predictor that a teacher would plan to quit teaching was burnout.
Friesen	1986	Burnout	Questionnaire	$\underline{N}$ = 1,191 (teachers)	Job challenge factor is a significant predictor of burnout.
Evans & Johnson	1990	Stress	Survey (300 public school teachers in Florida At the end of 1987-88 academic school year Multiple regression analysis	$\underline{N}$ = 166	Job-related stress is positively affected by principal's leadership behavior. Job satisfaction is negatively affected by principal's leadership behavior.
Hubert, Gable, & Iwanicki	1990	Stress	Path analysis	$\underline{N}$ = 90 schools $\underline{N}$ = 26 teachers per school	School source stress is likely to account for not more than 5% of total variance in teacher stress. Teachers should take responsibility for coping with their own level of stress. A school-wide effort would not be worthwhile. There were high and low levels of teacher stress in all the schools, regardless if the school was perceived as a high stress school.
Borg, Riding, & Falzon	1991	Stress	Questionnaire Principal components analysis	$\underline{N}$ = 710	Teachers who reported greater stress were less satisfied with their job and less committed.
Abel & Sewell	1999	Stress	Questionnaire (Georgia & North Carolina teachers who volunteered to participate in the study. Multivariate analysis of variance	$\underline{N}$ = 98	Greater self-reported stress for teachers in an urban setting than teachers in a rural setting. Urban teachers have poorer working conditions and staff relations than rural schoolteachers.

Table 8 (continued).

Synthesis of Research on Teacher Job Satisfaction or Teacher Retention and Emotional Factors

Author	Date	Factor related to job satisfaction or teacher retention	Type of study, data source	Sample size	Findings
Harris & Associates, Metropolitan Life Survey	2001	Frustration	Combination of telephone survey and online survey. 513 teachers were interviewed by telephone and 760 teachers were interviewed online.	N = 1,273	45% of teachers who are dissatisfied with their job feel frustrated and unappreciated.

Chapter Summary

In summary, researchers have identified reasons for the teacher shortage, including an increase in student population, an increase in the number of teachers retiring, and a decrease in class size. At the same time, fewer college freshmen are entering the profession, and many teachers are leaving the profession early. Addressing the problem through recruitment practices has been one solution. Retaining teachers once they enter the field is another. Determining the reasons teachers leave provides policymakers and educational leaders valuable information in developing solutions to solve the teacher retention problem.

There continues to be a high attrition rate among new teachers. The "novice teacher," thus, is the focus of this study. New recruits leave the profession more rapidly than experienced teachers. There are many factors included in the research that affect a teachers' satisfaction level. This is a study of the factors that discriminate between leavers and stayers.

CHAPTER 2
METHODOLOGY

This chapter is a detailed description of the methods used in this study. The design, the setting, the participants, and the construction of the instrument are described. Validity and reliability of the instrument, the data collection methods, and the analytical procedures are reported.

Design

A discriminant analysis was used to investigate the group separation (stayers or leavers) of new teachers based on their level of job satisfaction in the teaching profession. There are two types of discriminant analysis: a descriptive discriminant analysis (DDA) and a predictive discriminant analysis (PDA) (Buras, 1996; Huberty, 1994). Descriptive discriminant analysis is used to study and explain group separation when using a number of continuous variables (Buras). Predictive discriminant analysis uses a set of predictor variables to maximize the classification accuracy on a grouping variable (Huberty). Because my purpose was to determine which teacher job satisfaction variables distinguished stayers from leavers, a descriptive discriminant analysis was used. In this type of analysis a score is assigned to each predictor variable, and a value is given to the criterion variable that indicates group membership. The quantitative variables for discriminant analysis are called predictors and the group membership variable is called the criterion variable (Green, Salkind & Akey, 2000).

The overall question answered with the discriminant analysis is:

What combination of factors best separates (discriminates between) leavers and stayers?

A summary of the research question, a description of the variables, the analytical procedure, and the reporting method are in Table 9.

Table 9

Methodology Summary Table

Research question	Variables	Description of data analysis	Reported data
What combination of factors best separates (discriminates between) leavers and stayers?	Criterion variable: group membership (stayer or leaver) Predictor variables: scores on each domain (emotional factors; school and community support; instructional support; preparation in teaching curriculum, managing students, and assessing students; collaboration; compensation and benefits; motivation to teach; culture shock)	Discriminant analysis	Descriptive statistics for all variables ($\underline{M}$, $\underline{SD}$, Minimum and Maximum) Correlations among demographic variables, results of chi-square tests Inferential statistics, including significance tests (Wilks' Lambda) Standardized canonical discriminant function coefficients, pooled within-groups correlations (structure matrix) Separation of groups on discriminant functions Strength-of-relationship statistics (eigenvalues)

Setting and Participants

This was a nationwide study. Market Data Retrieval (MDR) was chosen as the source of participants. Market Data Retrieval, a company of the Dun & Bradstreet Corporation, has provided information and services for the education market for 30 years. Their school directories are updated annually with an intensive campaign conducted each summer. During the three-month summer period, 100 percent of the nation's school districts are contacted to capture personnel changes. MDR is headquartered in Shelton, Connecticut, and is the leading U.S. provider of information and services for the education market. Five million educator names in

260,000 institutions are included in the databases (Market Data Retrieval, 2003). The database for this study included only public schools (K-12) in the United States. Each school district provides the names to Market Data Retrieval voluntarily; thus, the population includes only the new teachers in the United States whose districts or schools chose to provide the information.

Because there were approximately 1,450,000 teachers' names in the database, the goal was to have at least 384 participants, the number recommended by Krejcie & Morgan (1970). The goal was to obtain at least 150 names each of first, second, and third year teachers across all geographic areas, all grade levels, and all sizes of public schools in the nation. The cost of the service allowed the researcher to obtain 1,000 names of teachers in each year for the same price as obtaining 150 names. MDR was asked to provide three lists of 1,000 names each of first, second, and third year teachers in May 2003. Each list was categorized by state. The researcher initially used 150 names from each list. The additional names were available for replacements. The samples were systematically drawn from the three nationwide lists. To capture teachers from all states, every sixth name was used in the random selection process. In the second, third, and fourth mailing any name previously used was excluded from the count. The teachers were contacted by mail and asked to complete the survey titled "Factors Affecting Job Satisfaction and Teacher Retention for New Teachers." The systematic sampling process used in this study is described in Table 10.

Table 10

Systematic Random Sampling Process

Date	Number of surveys sent	How they were chosen
May 18, 2003	150 – 1st year teachers 150 – 2nd year teachers 150 – 3rd year teachers	Counted every 6th name from the front of the list
July 3, 2003	100 – 1st year teachers 100 – 2nd year teachers 100 – 3rd year teachers	Counted every 6th name from the back of the list excluding any name previously used
July 27, 2003	100 – 1st year teachers 100 – 2nd year teachers 100 – 3rd year teachers	Counted every 6th name from the front of the list excluding any name previously used
August 8, 2003	100 – 1st year teachers 100 – 2nd year teachers 100 – 3rd year teachers	Counted every 6th name from the front of the list excluding any name previously used

Four hundred and fifty (150 in each category of first, second, and third year teachers) surveys were mailed initially. On May 10, 2003, a postcard was sent to the 450 original participants informing them of the survey. A respondent-friendly questionnaire with a financial incentive and cover letter were mailed on May 18, 2003 (see Appendix A and Appendix B). A stamped return envelope was included. All participants who had not returned their surveys by June 5, 2003, received a reminder postcard. A follow-up telephone call was made during the week of June 15, 2003. A replacement questionnaire was sent, if necessary (Dillman, 2000). One hundred eighteen surveys were returned from the first mailing. The goal was to have at least 384 surveys. There was a time factor in this study as new teachers had to be reached prior to leaving for summer vacation. When only 100 surveys had been received by June 15, the researcher developed another plan to acquire additional respondents.

Three additional mailings of 100 surveys each were sent on July 3, July 27, and August 8. The researcher was aware that administrators work during the summer months. These final mailings were addressed to the principal. The three mailings included a letter to the principal asking for help in locating the teacher (see Appendix C). The letter requested the principal to forward the survey to the teacher whose name (label from MDR) appeared on the survey even if that teacher chose not to return to the profession. A true picture of leavers and stayers could, therefore, still be obtained. Data on the populations, samples, and participants are in Table 11.

Table 11

Populations and Samples of Teachers in Their First, Second, or Third Year of Teaching

Year	Pop.	Sample		Resample 1		Return 1		Resample 2		Return 2		Resample 3		Return 3		Resample 4		Return 4		Total resample		Return	
		N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%
First	182,130	1000	100	150	15.0	40	26.7	100	10.0	21	21.0	100	10.0	6	6.0	100	10.0	4	4.0	450	45.0	71	15.8
Second[a]		1000	100	150	15.0	33	22.0	100	10.0	18	18.0	100	10.0	32	32.0	100	10.0	23	23.0	450	45.0	106	23.6
Third[a]		1000	100	150	15.0	30	20.0	100	10.0	37	37.0	100	10.0	32	32.0	100	10.0	35	35.0	450	45.0	134	29.8
Beyond 3 years (Unusable)						15				8				7				4				34	7.6
Years of experience left blank (Unusable)										1				1								2	.4
Total	2,858,528	3000	100	450	15.0	118	26.2	300	10.0	85	28.3	300	10.0	78	26.0	300	10.0	66	22.0	1350	45.0	347	25.7

[a]Population statistics not provided by Market Data Retrieval.

The data in Table 12 was used to determine if the researcher could generalize the findings to the population. The researcher made the following conclusions about the data:

- There was the same breakdown of gender for participants (Male = 23.8%, Female = 76.2%) and the sample (Male = 23.8%, Female = 76.2%). Market Data Retrieval (MDR) did not provide a breakdown of the population for gender.

- A greater proportion of third-year teachers and a smaller proportion of first-year teachers participated than were sampled, thus the data do not adequately represent these groups. Responses are weighted more toward the views of the third-year teachers and less toward the first-year teachers than they should.

- The breakdown among elementary, middle, and high school teachers was similar between the participants (Elementary = 51.5%, Middle = 19.4%, High = 29.1%), the sample (Elementary = 52.3%, Middle = 20.4%, High = 27.3%), and the population (Elementary = 51.8%, Middle = 18.7%, High = 26.5%).

While certain similarities occurred between the participants, sample, and population, there were dissimilarities, and the return was only 25.7 percent. Overall, generalizibility to the population should be done with caution.

Table 12

Generalizability of the Results to the Sample and the Population: Comparison of Statistics on the Population, Sample, and Participants

Variable	Population		Subgroups in the sample								Subgroups of participants							
			First year		Second year		Third year		Total		First year		Second year		Third year		Total	
	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%
Gender:																		
Male[a]			230	23.0	260	26.0	223	22.3	713	23.8	16	22.5	24	22.6	34	25.4	74	23.8
Female[a]			770	77.0	740	74.0	777	77.7	2287	76.2	55	77.5	82	77.4	100	74.6	237	76.2
Total			1000	100.0	1000	100.0	1000	100.0	3000	100.0	71	100.0	106	100.0	134	100.0	311	100.0
Years in education:																		
First	182,130	6.4	1000	100.0					1000	33.3	71	100.0					71	22.8
Second[b]	(combined)				1000	100.0			1000	33.3			106	100.0			106	34.1
Third[b]	2,676,398	93.6					1000	100.0	1000	33.3					134	100.0	134	43.1
Total	2,858,528	100.0	1000	100.0	1000	100.0	1000	100.0	3000	100.0	71	100.0	106	100.0	134	100.0	311	100.0
Teaching assignment:																		
Elementary	1,482,012	51.8	568	56.8	487	48.7	513	51.3	1568	52.3	44	62.9	53	50.0	62	46.6	159	51.5
Middle	535,179	18.7	175	17.5	222	22.2	216	21.6	613	20.4	7	10.0	18	17.0	35	26.3	60	19.4
High	756,892	26.5	257	25.7	291	29.1	271	27.1	819	27.3	19	27.1	35	33.0	36	27.1	90	29.1
Combined	84,445	3.0																
Total	2,858,528	100.0	1000	100.0	1000	100.0	1000	100.0	3000	100.0	70	100.0	106	100.0	133	100.0	309[c]	100.0

[a]Gender breakdown statistics for the population were not provided by Market Data Retrieval.
[b]Second and third year teacher breakdown was not provided by Market Data Retrieval. The third year number includes second year teachers.
[c]Two participants failed to respond to the question on teaching assignment.

Data Collection Instrument

Data on the predictor and criterion variables were gathered with a researcher-developed questionnaire (see Appendix A) entitled "Factors Affecting Job Satisfaction and Teacher Retention for Beginning Teachers." For the criterion variable, participants were asked if they planned to stay or leave the profession. A stayer was a person who planned to stay in the profession. A leaver was a person who planned to leave the profession. Item No. 36 on the questionnaire asked participants to indicate one of two choices:

_____ I plan to stay in the profession.

_____ I plan to leave the profession.

The criterion variable was assigned a value of 1=leaver or 2=stayer.

Data on the predictor variables were collected with the same researcher-developed questionnaire. The domains of job satisfaction were the initial set of predictor variables.

Construction of the Instrument

The questionnaire consisted of 49 items. It was two pages in length. Demographic items were gender; age; years of experience; race; teaching assignment; marital status; current salary; final undergraduate grade point average; route to teaching (traditional 4 or 5 year teacher preparation program or alternative certification program); location of school district (rural, suburban, urban); and state in which employed. Responses to thirty-five questions were collected in the satisfaction domains. The domains were: *compensation, preservice preparation, external forces, school culture, inservice training, motivation to teach, and emotional factors*. A four-point Likert scale was used to collect the data. The points on the scale were: 4 = SA (Strongly Agree), 3 = A (Agree), 2 = D (Disagree), and 1 = SD (Strongly Disagree).

Validation of the Domains and Items

Validation of the seven domains (predictor variables) and their associated items occurred in two stages. The first stage was the content validation of domains. The second stage was the validation of specific items within domains.

Content Validation of Domains

The satisfaction domains were derived from an extensive review of the literature. The researcher examined previous studies relating to the teacher shortage and teacher retention. Each variable mentioned in a study that could affect the satisfaction of new teachers was placed on an index card. Items on the cards were grouped by similarities and given a domain name. The variables derived from the literature were organized into seven major areas that became the domains. These items and domains were submitted to a series of panels for content validation. The number of items and domains submitted to the first panel were: *compensation*, 9; *preservice preparation*, 9; *external forces*, 11; *school culture*, 17; *inservice training*, 8; *motivation to teach*, 12; and *emotional factors*, 13. The questions are reported by domain in Appendix D.

Content Validation of Items

There were three rounds of item content validation. The objective was that 80 percent of the respondents assisting with the validation correctly place each item into the correct domain. In addition, a score of 2.5 or higher (on a 3.0 scale) was needed on the clarity rating for the question to be considered a choice on the final survey instrument. The questions used in Round 1 are in Appendix D. The definitions and content validity instrument are in Appendix E. The questions used in Rounds 2 and 3 are on the content validity instrument in Appendix E and listed in a table in Appendix F.

The first round of content validation included seven teachers and three administrators in a school division in southeast Virginia. Fifty-four of 79 questions were validated in this round. All but one question (Item 13) had a clarity rating of at least a 2.5 on a 3.0 scale. The group of teachers and administrators gave written input that was examined by the researcher. Based on the input, questions were rewritten and two questions were dropped due to redundancy. The revised questions are reported by domain in Appendix F.

The second round included five doctoral students and one professor. The students were part of a cohort attending Virginia Polytechnic Institute and State University, and the professor was the coordinator of the program. Sixty of 77 questions were validated in this round. One question (Item 16) fell below the 2.5 clarity-rating requirement. Input given by the respondents was examined. With the exception of Item 16, clarity ratings ranged from 2.5 – 3.0. No suggestions were given to rewrite the questions, and I concluded, except for Item 16, the wording of the questions was clear. The same questions were used in the next round of validation.

Nine vocational teachers at a high school in southeast Virginia completed the third round of content validation. For this round, only the 17 questions that were not validated from round two were used. Three more questions were validated during round three, and all three of the questions obtained a clarity rating of at least a 2.5. The questions that did not meet the criteria were dropped.

The number of items validated in each domain ranged from 7 –12 items. Fourteen questions were not validated. In five of the seven domains, at least 81 percent of the questions were validated. After three rounds of validation, 63 questions met the criteria for use on the questionnaire and formed the pool of items for the final questionnaire. After examining the validated items, five questions that the researcher believed best represented each domain were

selected. A summary of the items validated by domain is in Table 13. The content validation

statistics for all three rounds are in Appendix G (Tables G1, G2, and G3).

Table 13

Item Validation by Domain

Domain	Number of items used in validation process (2nd & 3rd rounds)	Number of items validated after three rounds	Percent validated after three rounds	Number of validated items used on the scale
Compensation	9	9	100.0	5
Preservice preparation	8	8	100.0	5
External forces	11	8	72.7	5
School culture	17	10	58.8	5
Inservice training	8	7	87.5	5
Motivation to teach	11	9	81.8	5
Emotional factors	13	12	92.3	5

Teachers, administrators, doctoral students, and professors were used as participants in

the validation process. New teachers were not specifically chosen to participate in the content

validation process. The language used in the questions was not specific to new teachers. The

researcher, therefore, felt that it was not necessary to target new teachers for the validation

process; any educator could understand the definitions and items and classify the items according

to directions.

Reliability for the Original Predictor Variables

Prior to running the reliability analysis, each item was examined carefully. The researcher determined that Item 22 should be discarded because the wording of the question was misleading. Each set of items was considered a scale; thus, there were seven scales, one for each of the predictor variables. Cronbach's alpha was calculated for each scale. Items 2, 3, 15, 23, 28, 31, 32, and 34 were reverse-coded for scoring as they were negatively worded. A summary of the alpha coefficients is in Table 14.

Table 14

Alpha Reliability Coefficients for the Original Predictor Variables

Scale	N (Items)	M Scale mean (Item mean)	Scale SD	Alpha
Compensation (Items: 1, 4, 7, 10, 13)	5	10.62 (2.12)	2.26	.57
Preservice preparation (Items: 16, 19, 25, 28R)	4	11.07 (2.77)	2.06	.55
External forces (Items: 3R, 6, 9, 12, 15R)	5	12.78 (2.56)	2.11	.43
School culture (Items: 14, 17, 20, 26, 33)	5	13.93 (2.79)	2.78	.73
Inservice training (Items: 2R, 5, 8, 11, 30)	5	14.28 (2.86)	2.64	.66
Motivation to teach (Items: 18, 24, 27, 29, 35)	5	16.25 (3.25)	1.99	.62
Emotional factors (Items: 21, 23R, 31R, 32R, 34R)	5	14.67 (2.93)	2.62	.77

Note. The scale preservice preparation only had four items because Item 22 was discarded. R = recoded item because of negative wording. See Appendix A for the content of items.

Reliability for the New Predictor Variables

The researcher decided that the reliability coefficients were not high enough and decided to use a principal components analysis to check the clustering of the items. The rotation method was Varimax with Kaiser Normalization and the rotation converged in 44 iterations. Prior to running the principal components analysis, each item was examined carefully. Item 22 was discarded because the wording of the question was misleading. Items 2, 3, 15, 23, 28, 31, 32, and 34 were reverse- coded as they were negatively worded. Responses from 347 surveys were inputted into SPSS. Of the 347, 311 respondents were first, second, or third year teachers. All others were filtered. The results of the rotated components matrix are in Table 15.

Table 15

Rotated Components Matrix

Item	Components									
	1	2	3	4	5	6	7	8	9	10
1	.05	.03	.09	-.10	-.02	.74	.02	.18	.15	-.01
4	.03	.01	.00	.02	-.02	.77	-.09	-.02	-.04	.17
5	.13	.28	.70	-.02	.13	.13	.04	.08	.02	-.01
6	.09	.70	.11	-.04	.06	.08	.01	.02	.00	.04
7	.11	.21	.06	.24	.23	.54	.01	-.07	.11	.06
8	-.06	.40	.32	.09	.17	.19	.16	.20	.22	.21
9	-.00	.21	.07	.10	.15	.31	.03	.09	.62	-.08
10	-.01	-.09	.18	.00	.09	.21	-.06	-.17	.28	.57
11	.18	.13	.77	.01	.09	.02	-.04	.04	.07	.04
12	.07	.60	.15	.12	.02	.06	.03	.17	.06	.23
13	.08	.31	-.02	.10	.03	.09	.09	-.02	-.17	.75
14	.16	.27	.31	.09	.26	.06	-.25	.09	.31	.25
16	.19	.07	.11	.67	.02	.06	-.01	-.17	.02	-.02
17	-.06	.21	.09	.20	.75	.02	-.07	-.05	-.03	.05
18	.20	-.20	.06	-.07	.64	.22	.25	.25	.08	.19
19	.09	-.11	-.08	.73	.11	.02	-.03	.12	.20	-.05
20	.16	.45	.13	-.02	.43	.04	-.17	.05	.23	-.19
21	.32	.19	-.23	-.12	.01	.04	-.56	.20	.23	.02
24	.61	.26	.10	.19	.09	.05	.23	-.05	.08	.03
25	.50	.13	.18	.30	.07	.12	.27	-.02	-.13	-.33
26	.29	.37	.26	.05	.49	-.05	.04	.07	.16	-.06
27	.60	.26	.17	.23	.01	-.02	.32	.01	-.04	-.18
29	.67	.15	-.05	.08	.05	.08	.33	.02	-.09	-.06
30	.20	.04	.45	.23	.01	-.03	-.03	.02	.51	.16
33	.44	.52	.20	-.07	.27	.00	-.20	.03	.19	-.12
35	.11	.03	-.10	-.16	.01	-.06	.75	.08	.10	.04
2 Recoded	.14	.18	.34	.34	.08	-.04	-.11	.55	.06	-.03
3 Recoded	.18	-.06	.06	.22	.17	.05	-.11	.53	-.38	-.09
15 Recoded	.17	.18	-.02	-.15	.00	.12	.13	.70	.18	-.06
23 Recoded	.69	.01	.20	.05	.20	.07	-.23	.04	-.12	-.01
28 Recoded	.14	.08	-.01	.57	.03	-.02	-.05	.22	-.09	.22
31 Recoded	.68	-.05	-.07	.01	-.07	.01	-.11	.20	.23	.09
32 Recoded	.80	.01	.08	.07	-.02	.02	-.05	.17	.13	.11
34 Recoded	.66	.01	.21	.15	.08	.04	-.26	.12	-.07	.09

Note. R = recoded item because of negative wording. See Appendix A for the content of items.

The principal components analysis extracted ten components. Scales were created of items with loadings of .40 or higher. The questions that became a part of the new domains are listed in this section. An inter-item correlation matrix is provided for each domain to show the internal consistency within the domain.

To summarize, item 22 was discarded. Items 2, 3, 15, 23, 28, 31, 32, and 34 were reverse-coded. Item 18 had a value of .64 for component 5; however, the item did not conceptually fit in that domain with items 17 and 26 and was dropped. Item 9 fell into component 9 with item 30. However, the two items were not conceptually related, and the component was dropped. Item 30 was kept and included in component 3 because of its conceptual relationship to items 5 and 11. Item 33 loaded on component 1 and 2; however, it was conceptually closer to component 2 and was placed in that domain. Item 20 loaded on components 2 and 5. It was placed in component 2 because it was conceptually closer to the items on that component. Item 21 loaded on component 7 with item 35; however, the two questions did not conceptually fit together. Item 21 was dropped. Component 10, with questions 10 and 13 had low reliability and was discarded for further analysis. Item 14 did not meet the .40 criteria for being in any component. It was dropped.

Cronbach's alpha reliability coefficients was calculated for each component with multiple items. As expected, those components with few items had low reliability coefficients. Only two scales had reliability coefficients of sufficient size for meaningful analysis: *emotional factors* and *school and community support*. The remaining variables were included in the analysis for exploratory purposes. The new name, the mean, the standard deviation, and the reliability coefficient for each domain are in Table 16.

Table 16

Alpha Reliability Coefficients for the New Predictor Variables

(Domains) Following the Principal Components Analysis

Scale	$\underline{N}$ (Items)	$\underline{M}$ Scale mean (Item mean)	Scale $\underline{SD}$	Alpha
Emotional factors (Items: 23R, 24, 25, 27, 29, 31R, 32R, 34R)	8	26.09 (3.26)	3.65	.84
School and community support (Items: 6, 8, 12, 20, 33)	5	14.14 (2.83)	2.55	.70
Instructional support (Items: 5, 11, 30)	3	8.40 (2.80)	1.94	.63
Preparation in teaching curriculum, managing students, and assessing students (Items: 16, 19, 28R)	3	7.69 (2.56)	1.83	.55
Collaboration (Items: 17, 26)	2	5.72 (2.86)	1.32	.53
Compensation and benefits (Items: 1, 4, 7)	3	6.86 (2.29)	1.68	.55
Motivation to teach (Item: 35)	1	-	-	-
Culture shock (Items: 2R, 3R, 15R)	3	2.69 (8.08)	1.65	.46

Note. R = recoded item because of negative wording. See Appendix A for the content of items.

Emotional Factors

Items 23, 24, 25, 27, 29, 31, 32, and 34 are in the domain *emotional factors.* They are

listed below. Table 17 is the inter-item correlation matrix for this domain.

*23. I have anxiety attacks when I think of going to work.

24. The joy of teaching young people keeps me motivated year after year.

25. I feel confident that I have the skills necessary to perform my duties.

27. I feel that I am making a difference in the lives of children.

29. I have a strong commitment to the field of education.

*31. I feel burned out by the end of September.

*32. My job is too frustrating for me.

*34. The stress on my job reduces my confidence as a teacher.

_____

*Reverse-coded items.

Table 17

Inter-Item Correlation Matrix for Emotional Factors

Item	24	25	27	29	23R	31R	32R	34R
24	1.00							
25	.45	1.00						
27	.50	.52	1.00					
29	.44	.40	.50	1.00				
23R	.35	.34	.38	.36	1.00			
31R	.35	.22	.28	.33	.36	1.00		
32R	.41	.31	.42	.46	.53	.67	1.00	
34R	.37	.32	.35	.32	.54	.35	.56	1.00

Note. R = reverse-coded item.

School and Community Support

Items 6, 8, 12, 20, and 33 are in the domain *school and community support.* They are

listed below. Table 18 is the inter-item correlation matrix for this domain.

6. Many businesses in my community have created partnerships with the schools.

8. My district stresses professional development as a way of increasing the skill level of

teachers.

12. The community has many resources available to deal with social problems of young

people.

20. My administrators deal with difficult students very effectively.

33. My school has a positive environment in which to teach.

Table 18

Inter-Item Correlation Matrix for School and Community Support

Item	6	8	12	20	33
6	1.00				
8	.28	1.00			
12	.27	.38	1.00		
20	.31	.23	.24	1.00	
33	.34	.29	.35	.49	1.00

Instructional Support

Items 5, 11, and 30 are in the domain *instructional support.* They are listed below. Table 19 is the inter-item correlation matrix for this domain.

5. As part of the professional development plan for new teachers, I am given the opportunity to observe and seek advice from experienced teachers.

11. The mentoring program in my district has been a useful program as it gave me the opportunity to discuss problems with an experienced teacher.

30. An induction program held before the start of the school year helped me prepare for the classroom on the first day of school.

Table 19

Inter-Item Correlation Matrix for Instructional Support

Item	5	11	30
5	1.00		
11	.27	1.00	
30	.31	.24	1.00

Preparation in Teaching Curriculum, Managing Students, and Assessing Students

Items 16, 19, and 28 are in the domain *preparation in teaching curriculum, managing students, and assessing students.* They are listed below. Table 20 is the inter-item correlation matrix for this domain.

16. My coursework specifically dealt with assessing students' abilities.

19. My courses in college prepared me to teach the curriculum for the courses that I have been assigned.

*28. Classroom discipline was addressed in very few of my teacher education classes.

_____

*Reverse-coded items.

Table 20

Inter-Item Correlation Matrix for Preparation in Teaching Curriculum, Managing Students, and Assessing Students

Item	16	19	28R
16	1.00		
19	.33	1.00	
28R	.24	.31	1.00

Note. R = Reverse-coded item.

Collaboration

Items 17 and 26 are in the domain *collaboration.* They are listed below. Table 21 is the inter-item correlation matrix for this domain.

17. The entire staff takes part in creating the objectives for the school's yearly plan.

26. Teachers in my school work as a team to ensure student achievement.

Table 21

Inter-Item Correlation Matrix for Collaboration

Item	17	26
17	1.00	
26	.37	1.00

Compensation and Benefits

Items 1, 4, and 7 are in the domain *compensation and benefits.* They are listed below.

Table 22 is the inter-item correlation matrix for this domain.

1. My salary adequately meets my needs.

4. The salary for teachers in my geographical area is comparable to the salaries of other

people with the same level of education.

7. My district provides a lucrative retirement package.

Table 22

Inter-Item Correlation Matrix for Compensation and Benefits

Item	1	4	7
1	1.00		
4	.39	1.00	
7	.24	.24	1.00

Motivation to Teach

Item 35 is the only question in the domain *motivation to teach.* The question is listed

below. There is no correlation matrix with a domain that contains only one question.

35. I feel challenged in my job as a teacher.

Culture Shock

Items 2, 3, and 15 are in the domain *culture shock*. They are listed below. Table 23 is the inter-item correlation matrix for this domain.

*2. The induction program for new teachers was not long enough.

*3. The social issues that my students face were a shock to me.

*15. The parents or guardians of my students rarely return my calls.

* Reverse-coded items.

Table 23

Inter-Item Correlation Matrix for Culture Shock

Item	2R	3R	15R
2R	1.00		
3R	.22	1.00	
15R	.25	.19	1.00

Note. R= reverse-coded items.

A revised theoretical framework was developed that included the eight domains that emerged from the principal components analysis. These eight domains were used for further analysis. The theoretical framework is in Figure 6. The questions by domain are reported by domain in Appendix H.
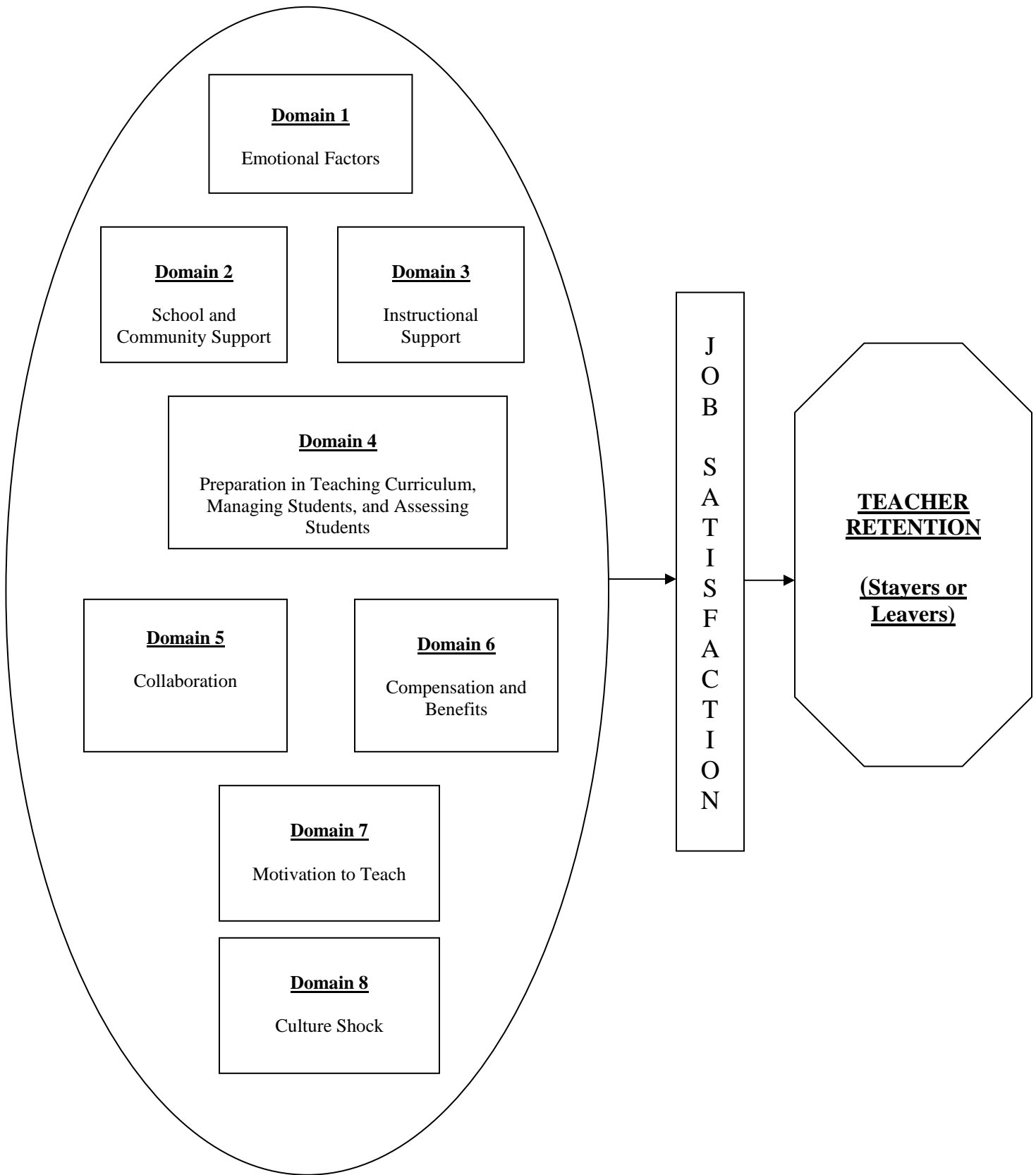
Figure 6. Revised theory that includes the domains found in the principal components analysis.

Data Collection and Management Procedures

Preliminary data included the date the survey was returned, the mailing (first, second, third, or fourth), the code the researcher placed on the survey for tracking purposes, whether or not the teacher was a stayer or a leaver, the number of years in education, and the state of the respondent. These data were keyed into a document in Microsoft Word as a record of all responses. In addition, the date the survey was returned was placed on the survey instrument. There were some surveys returned from a school official with information about the potential participants. For example, one person was called to duty (National Guard) and another person went into the Peace Corps. Others did not fill out the survey because they did not fit the profile. The document in Microsoft Word used to track the initial responses included 372 people who responded even though all did not complete the survey. Of those, 347 were inputted into the Statistical Package for the Social Sciences (SPSS) for further analysis. In the end, 311 participants became a part of this study. The conceptual and operational definitions for each demographic and predictor variable used in the analysis are in Table 24. A summary of the coding used in the SPSS data file is in Table 25.

Table 24

Conceptual and Operational Definitions for the Demographic and Predictor Variables

Variable	Conceptual definition	Operational definition
Leaver	A teacher who chooses to exit the profession.	Respondent checked "I plan to leave the profession" on Item 36 of the questionnaire.
Stayer	A teacher who chooses to remain in the profession.	Respondent checked "I plan to stay in the profession" on Item 36 of the questionnaire.
Age	The numerical age of the respondent.	Respondent wrote his or her age at their last birthday on Item 38 of the questionnaire.
Race	The ethnic background of the respondent.	Respondent checked "American Indian or Alaskan Native," "Asian or Pacific Islander," "Hispanic," "Black, not of Hispanic origin," or "White, not of Hispanic origin" on Item 39a of the questionnaire.
Gender	The sex of the respondent.	Respondent checked "male" or "female" on Item 39b of the questionnaire.
Years in education	The number of years the respondent has been in the teaching profession.	Respondent checked "first year," "second year," or "third year" on Item 40 of the questionnaire.
Teaching assignment	The level of education that the respondent teaches in every day.	Respondent checked "elementary school," "middle school," or "high school" on Item 41 of the questionnaire.
Marital status	The marital status of the respondent.	Respondent checked "single" or "married" on Item 42 of the questionnaire.

Table 24 (continued).

Conceptual and Operational Definitions for the Demographic and Predictor Variables

Variable	Conceptual definition	Operational definition
Salary	The monetary compensation given to teachers for performing their job duties.	Respondent checked "Below $30,000," "Between $30,000 - $35,000," or "Over $35,000" on Item 43 of the questionnaire.
Final grade point average (GPA)	The final GPA for the respondent in his or her teacher preparation program.	Respondent checked "Below a 2.0," "Between 2.0 – 2.5," "Between 2.51 – 3.0," "Between 3.01 – 3.5," or "Over a 3.5" on Item 44 of the questionnaire.
Certification route	The route the person took to become a certified teacher.	Respondent checked "traditional (4 or 5 year teacher preparation program)" or "alternative certification program" on Item 45 of the questionnaire.
District setting	The geographic setting of the district in which the teacher teaches.	Respondent checked "rural setting," "suburban setting," or "urban setting" on Item 47 of the questionnaire.
State of employment	The state where the teacher is employed.	Respondent wrote the state in which he or she is employed on Item 48 of the questionnaire.
Emotional factors	Those things that contribute to the positive or negative feelings one has about the teaching profession.	The mean of items 23, 24, 25, 27, 29, 31, 32, and 34 with items 23, 31, 32, and 34 reverse scored.
School and community support	Those things that could help or hinder a person while performing duties as a teacher, including business or organizational involvement in an attempt to create a nurturing environment for children.	The mean of items 6, 8, 12, 20, and 33.
Instructional support	The on-the-job training a teacher receives to enhance the effectiveness and understanding of his or her role as a teacher.	The mean of items 5, 11, and 30.

Table 24 (continued).

Conceptual and Operational Definitions for the Demographic and Predictor Variables

Variable	Conceptual definition	Operational definition
Preparation in teaching curriculum, managing students, and assessing students	A teacher education program at the college or university level that provides instruction for teacher candidates to become effective facilitators of the teaching-learning process.	The mean of items 16, 19, and 28 with item 28 reverse scored.
Collaboration	Teachers and staff working together to create a positive school environment.	The mean of items 17 and 26.
Compensation and benefits	The wages and benefits paid to teachers for the performance of their duties.	The mean of items 1, 4, and 7.
Motivation to teach	The driving force that causes a teacher to enter and remain in the profession.	The mean of item 35.
Culture shock	The feelings a teacher experiences when the reality of the school environment is different from the teacher's expectations.	The mean of items 2, 3, and 15 reverse scored.

Table 25

Coding of Variables for Entry into Statistical Package for the Social Sciences (SPSS)

Item	Variable name	Response	Code
Items 1, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 16, 17, 18, 19, 20, 21, 22, 24, 25, 26, 27, 29, 30, 33, 35	Satisfaction items	SD	1
		D	2
		A	3
		SA	4
Items 2, 3, 15, 23, 28, 31, 32, 34 (Reverse scored items)	Satisfaction items	SD	4
		D	3
		A	2
		SA	1
Item 36	Leaver/Stayer	Leaver	1
		Stayer	2
Item 38	Age	Age	Numerical
Item 39race	Race	American Indian or Alaskan Native	1
		Asian or Pacific Islander	2
		Hispanic	3
		Black, not of Hispanic Origin	4
		White, not of Hispanic Origin	5
Item 39sex	Sex	Male	1
		Female	2
Item 40	Years in education	First year	1
		Second year	2
		Third year	3
Item 41	Teaching assignment	Elementary school	1
		Middle school	2
		High school	3
Item 42	Marital status	Single	1
		Married	2

Table 25 (continued).

Coding of Variables for Entry into Statistical Package for the Social Sciences (SPSS)

Item	Variable	Response	Code
Item 43	Salary	Below $30,000	1
		Between $30,000 - $35,000	2
		Over $35,000	3
Item 44	Final grade point average	Below a 2.0	1
		Between a 2.0 – 2.5	2
		Between a 2.51 – 3.0	3
		Between 3.01 – 3.5	4
		Over a 3.5	5
Item 45	Route to teaching	Traditional	1
		Alternative certification program	2
Item 47	Geographic setting	Rural	1
		Suburban	2
		Urban	3
Item 48	State	Alabama	1
		Alaska	2
		Arizona	3
		Arkansas	4
		California	5
		Colorado	6
		Connecticut	7
		Delaware	8
		District of Columbia	9
		Florida	10
		Georgia	11
		Hawaii	12
		Idaho	13
		Illinois	14
		Indiana	15
		Iowa	16
		Kansas	17
		Kentucky	18
		Louisiana	19
		Maine	20

Table 25 (continued).

Coding of Variables for Entry into Statistical Package for the Social Sciences (SPSS)

Item	Variable	Response	Code
Item 48 (continued)	State	Maryland	21
		Massachusetts	22
		Michigan	23
		Minnesota	24
		Mississippi	25
		Missouri	26
		Montana	27
		Nebraska	28
		Nevada	29
		New Hampshire	30
		New Jersey	31
		New Mexico	32
		New York	33
		North Carolina	34
		North Dakota	35
		Ohio	36
		Oklahoma	37
		Oregon	38
		Pennsylvania	39
		Puerto Rico	40
		Rhode Island	41
		South Carolina	42
		South Dakota	43
		Tennessee	44
		Texas	45
		Utah	46
		Vermont	47
		Virgin Islands	48
		Virginia	49
		Washington	50
		West Virginia	51
		Wisconsin	52
		Wyoming	53

Analytical Procedures

Discriminant analysis was used to study differences between the two groups of new teachers: (a) those who planned to stay in the profession and (b) those who planned to leave the profession.

The data were analyzed using the Statistical Package for the Social Sciences (SPSS) (SPSS Inc., 2001). Descriptive statistics mean, standard deviation, and minimum and maximum were calculated for each of the identified variables, including the domains and the demographic information. Differences between leavers and stayers on the predictor variables were computed using discriminant function analysis. This multivariate technique answers the following question. What combination of factors best separates (discriminates among) different groups (Chapman & Hutcheson, 1982, p. 97)?

The predictor variables were linearly combined to gather information about group membership. These linear combinations of predictor variables are called Fisher's linear discriminant functions or classification functions, and their coefficients are referred to as Fisher's function coefficients (Green et al., 2000). One assessment of the discriminant function is the number of cases correctly classified into the groups.

CHAPTER 3
RESULTS OF THE STUDY

My purpose was to investigate whether individuals in two different groups (stayers and leavers) could be correctly classified into these two categories based on the combination of their scores on eight variables. A discriminant analysis was conducted with eight predictor variables: *emotional factors; school and community support; instructional support; preparation in teaching curriculum, managing students, and assessing students; collaboration; compensation and benefits; motivation to teach; and culture shock*. These predictor variables or domains of teacher job satisfaction are a part of the revised theory in Figure 6.

Data are presented in two sections. In the first section, descriptive data and differences between leavers and stayers are analyzed with t-tests and chi-squares. Specific survey responses and demographic information about respondents are summarized. In the second section, the results of the discriminant analysis are presented and interpreted.

Descriptive Data and Differences Between Leavers and Stayers

The questionnaire administered to first, second, and third year teachers had 49 items. The first 35 items were specifically related to the eight predictor variables. Items 36-49 solicited general information about the teacher. Responses are summarized in this section. Descriptive statistics for the eight predictor variables are in Table 26 and descriptive statistics for the demographic variables are in Tables 27 through 30.

Descriptive Data: Staying or Leaving

Those surveyed were asked if they plan to stay in or leave the profession. Three hundred forty-seven responded. Of the 347, 311 were first, second, or third year teachers. Two hundred seventy-two (88.89%) planned to stay in the profession, 34 (11.11%) planned to leave the profession, and five left item #36 blank.

Descriptive Data: Satisfaction of Leavers and Stayers

- The highest satisfaction for all respondents was with *emotional factors* and *motivation to teach*.

- The highest satisfaction for leavers was with *motivation to teach*.

- The highest satisfaction for stayers was with *emotional factors*.

- The lowest satisfaction for all respondents was with *compensation and benefits*.

- The lowest satisfaction for leavers was with *compensation and benefits*.

- The lowest satisfaction for stayers was with *compensation and benefits*.

- Stayers scored significantly higher than leavers on *emotional factors, school and community support, instructional support, preparation in teaching curriculum, managing students, and assessing students, compensation and benefits, and culture shock.*

Table 26

Mean, Standard Deviation, Minimum and Maximum for Predictor

Variables Classified by Leavers and Stayers

Predictor variable	Total		Leavers		Stayers		
	N Total Used Missing[a]	M SD Min./Max.	N Total used Missing	M SD Min./Max.	N Total used Missing	M SD Min./Max.	t
Emotional factors	311 5	3.26 .45 1.50/4.00	34 0	2.82 .63 1.50/3.88	272 0	3.32 .39 2.38/4.00	-6.61**
School and community support	311 5	2.81 .51 1.60/4.00	34 0	2.61 .55 1.60/3.60	272 0	2.84 .50 1.60/4.00	-2.57**
Instructional support	311 5	2.80 .64 1.00/4.00	34 0	2.48 .75 1.00/4.00	272 0	2.84 .62 1.00/4.00	-3.14**
Preparation in teaching curriculum, managing students, and assessing students	311 5	2.57 .61 1.00/4.00	34 0	2.33 .70 1.00/4.00	272 0	2.60 .58 1.00/4.00	-2.49**
Collaboration	311 5	2.85 .66 1.00/4.00	34 0	2.69 .66 1.00/4.00	272 0	2.87 .65 1.00/4.00	-1.56
Compensation and benefits	311 5	2.29 .56 1.00/4.00	34 0	1.92 .46 1.00/2.67	272 0	2.33 .55 1.00/4.00	-4.30**
Motivation to teach	309 5	3.26 .59 1.00/4.00	34 0	3.15 .66 2.00/4.00	270 2	3.27 .58 1.00/4.00	-1.18
Culture shock	311 5	2.69 .55 1.00/4.00	34 0	2.36 .62 1.0/3.33	272 0	2.74 .53 1.00/4.00	-3.85**

[a]Five had missing or out-of-range group codes. Two had at least one missing discriminating variable.

Note. The scale was 1 = strongly disagree, 2 = disagree, 3 = agree, 4 = strongly agree.

*p≤.05, **p≤.01.

Descriptive Data: Differences Between Leavers and Stayers

on Demographic Variables

The data are in Table 27.

- Leavers and stayers did not differ on age, gender, race, grade level of teaching assignment, marital status, current salary, final grade point average, route to teaching, location of school district, or geographic region of the United States.

- Not surprisingly, a larger proportion of the leavers were third-year teachers. This is the tenure year in most school systems, and many of the leavers may have left because they were not receiving tenure or they surmised they would not be recommended for tenure.

- A majority of the respondents were in their twenties with more than forty percent between the ages 25 –30.

- Over three-fourths of the respondents were female.

- More than forty percent of the respondents were in their third year of teaching and a little over one-third were in their second year of teaching.

- Respondents were primarily white with less than sixteen percent minority.

- Approximately one-half of the respondents were teachers in an elementary school. Less than thirty percent were high school teachers, and fewer than twenty percent were middle school teachers.

- More than one-half of the respondents were married.

- More than eighty percent of the teachers earned a yearly salary of $35,000 or less with almost forty percent earning below $30,000.

- More than one-half of the respondents reported a grade point average of over 3.5. One-third of the respondents reported earning between 3.01 – 3.5.

- Over three-fourths of the respondents prepared for teaching through a traditional preparation program. An alternative certification program was the path for a little more than one-fifth of the respondents.

- Over forty percent of the teachers were from a rural setting. Slightly less than one-third of the respondents taught in an urban setting.

- Over eighty percent of the respondents are from the south and the midwest with fewer than seven percent each from the northeast and the west. Almost fifty percent of the respondents are from the south. Forty states were represented with at least one respondent. About forty-five percent of the respondents came from Florida, Indiana, Texas, and Missouri. The number and percentage of teachers responding from each state are in Table 28.

Table 27

Differences Between Leavers and Stayers on the Demographic Variables:

Results of Chi-square Analyses

Demographic variable		Total		Leaver		Stayer		Chi-square	p
		N	%	N	%	n	%		
Age[a]	Under 25	78	25.74	7	8.97	71	91.03	2.98	.27
	Between 25-30	126	41.58	19	15.08	107	84.92		
	Over 30	99	32.67	8	8.08	91	91.92		
	Total usable	303		34		269			
	Missing	8							
Gender	Male	72	23.53	11	15.28	61	84.72	1.66	.20
	Female	234	76.47	23	9.83	211	90.17		
	Total usable	306		34		272			
	Missing	5							
Years of experience	First year	71	23.20	4	5.63	67	94.37	9.69	.01**
	Second year	104	33.99	7	6.73	97	93.27		
	Third year	131	42.81	23	17.56	108	82.44		
	Total usable	306		34		272			
	Missing	5							
Race[a]	Minority	48	15.89	7	14.58	41	85.42	.63	.43
	White, not of Hispanic origin	254	84.11	27	10.63	227	89.37		
	Total usable	302		34		268			
	Missing	9							

*p≤.05, **p≤.01.

Table 27 (continued)

Differences Between Leavers and Stayers on the Demographic Variables:

Results of Chi-square Analyses

Demographic variable		Total		Leaver		Stayer		Chi-square	p
		n	%	n	%	n	%		
Teaching assignment	Elementary school	157	51.64	16	10.19	141	89.81	3.08	.21
	Middle school	58	19.08	4	6.90	54	93.10		
	High school	89	29.28	14	15.73	75	84.27		
	Total usable	304		34		270			
	Missing	7							
Marital Status	Single	132	43.14	18	13.64	114	86.36	1.50	.22
	Married	174	56.86	16	9.20	158	90.80		
	Total usable	306		34		272			
	Missing	5							
Salary	Below $30,000	119	38.89	12	10.08	107	89.92	.21	.90
	Between $30,000 - $35,000	128	41.83	15	11.72	113	88.28		
	Over $35,000	59	19.28	7	11.86	52	88.14		
	Total usable	306		34		272			
	Missing	5							
Final grade point average[a]	3.0 or below	31	10.23	5	16.13	26	83.87	2.49	.29
	Between 3.01 – 3.5	101	33.33	14	13.86	87	86.14		
	Over 3.5	171	56.44	15	8.77	156	91.23		
	Total usable	303		34		269			
	Missing	8							

*p≤.05, **p≤.01.

Table 27 (continued).

Differences Between Leavers and Stayers on the Demographic Variables:

Results of Chi-square Analyses

Demographic variable		Total		Leaver		Stayer		Chi-square	p
		n	%	n	%	n	%		
Route to teaching	Traditional (4-year undergraduate program)	241	78.76	28	11.62	213	88.38	.30	.59
		65	21.24	6	9.23	59	90.77		
	Alternative route	306		34		272			
	Total usable	5							
	Missing								
Location of school division	Rural	134	43.93	13	9.70	121	90.30	.55	.76
	Suburban	94	30.82	12	12.77	82	87.23		
	Urban	77	25.25	9	11.69	68	88.31		
	Total usable	305		34		271			
	Missing	6							
Geographic region[a]	Northeast	21	6.86	1	4.76	20	95.24	5.23	.16
	South	152	49.67	23	15.13	129	84.87		
	Midwest	113	36.93	9	7.96	104	92.04		
	West	20	6.54	1	5.00	19	95.00		
	Total usable	306		34		272			
	Missing	5							

[a]Categories were collapsed to increase cell numbers.

*p≤.05, **p≤.01.

90

Table 28

State of Employment of Survey Respondents

State	Number of respondents from state	Percent of total respondents from state
Florida	43	13.82
Indiana	36	11.58
Texas	33	10.61
Missouri	31	9.97
Georgia	18	5.79
Alabama	16	5.14
Kansas	11	3.54
North Carolina	9	2.89
Connecticut	9	2.89
Ohio	8	2.57
Virginia	8	2.57
Mississippi	7	2.25
Pennsylvania	7	2.25
Iowa	6	1.93
Michigan	6	1.93
Nebraska	6	1.93
Washington	6	1.93
Oklahoma	5	1.61
South Dakota	5	1.61
Tennessee	5	1.61
California	5	1.61
Wisconsin	4	1.29
Kentucky	3	.96
Minnesota	3	.96
Montana	2	.64
Nevada	2	.64
New Mexico	2	.64
New York	2	.64
North Dakota	2	.64
Louisiana	1	.32
Maryland	1	.32
Massachusetts	1	.32
Arizona	1	.32
New Hampshire	1	.32
Oregon	1	.32
Arkansas	1	.32
South Carolina	1	.32
Vermont	1	.32
Colorado	1	.32
District of Columbia	1	.32
Total	311	100.0

Descriptive Data: Reasons for Leaving

Item 37 asked the following question.

If you plan to leave, state the reason why you are leaving.

Fifty-eight responses were received and categorized. Eights domains were identified. Six were the domains on the questionnaire. The two new domains were personal reasons and dissatisfaction. One-half of first year teachers left for personal reasons and one-half left due to *compensation and benefits*. Second year teachers were primarily dissatisfied with *compensation and benefits*. Almost 30 percent of third year teachers left for personal reasons. Dissatisfaction with *compensation and benefits*, *emotional factors*, *culture shock*, and *school and community support* were other reasons third-year teachers gave for leaving. A summary of the responses is in Table 29.

Table 29

Summary of Reasons for Leaving the Profession by Category

Reason for leaving	Number of times given as a response		
	First year teacher $\underline{N} = 4$[a]	Second year teacher $\underline{N} = 7$[a]	Third year teacher $\underline{N} = 23$[a]
Personal reasons			
Graduate school			2
Fulfill personal goals			1
Parenthood, raise a family		1	1
Pursue another career	1		4
Relocating	1	1	3
Retiring			1
Total	2	2	12
Dissatisfaction			
Hate teaching			1
Job dissatisfaction			1
Released from position		1	
Total		1	2
Emotional factors		1	6
School and community support		1	5
Preparation in teaching curriculum, managing students, and assessing students			1
Compensation and benefits	2	7	7
Motivation to teach			3
Culture Shock			6
Total Responses	4[b]	12[b]	42[b]

[a]This is the total number of teachers who reported they were leaving education at the end of the specified year. Some teachers gave more than one response.

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Descriptive Data: Factors That Could Keep Leavers in the Profession

Item 49 asked the following question.

> If you are leaving the profession, state one factor that would have
>
> changed your decision.

The responses were placed into categories that mirrored the domains. Personal and political reasons were additional categories. Better pay, better benefits, a more supportive school, and a less political atmosphere in the community may help keep many teachers in the profession. However, it is not clear whether the leavers, especially those who may have completed the questionnaire and felt they were treated unfairly in the tenure process, were teachers who should have been encouraged to remain in teaching. A summary of the responses is in Table 30.

Table 30

Factors That Would Have Changed the Teacher's Decision to Leave the Teaching Profession

Responses	Number of times given as a response			
	First-year teachers $\underline{N} = 4^a$	Second-year teachers $\underline{N} = 7^a$	Third-year teachers $\underline{N} = 23^a$	Total $\underline{N} = 34$
Personal reasons	1	1	1	3
Political reasons	2	1	7	10
Emotional factors	-	3	5	8
School and community support	2	6	15	23
Instructional support	2	3	3	8
Preparation in teaching curriculum, managing students and assessing students	1	1	-	2
Compensation and benefits	6	12	23	41
Motivation to teach	-	-	1	1
Total responses	14[b]	27[b]	55[b]	96

[a]This is the total number of teachers who reported they were leaving education at the end of the specified year. [b]Some teachers gave more than one response.

Discriminant Analysis

A discriminant analysis was conducted using the response to Item #36 (Do you plan to leave or stay in the profession?) as the criterion variable. Predictor variables were the factors derived from the principal components analysis: *emotional factors; school and community support; instructional support; preparation in teaching curriculum, managing students, and assessing students; collaboration; compensation and benefits; motivation to teach; and culture shock.*

This section is divided into three parts. The definitions of key statistical terms are the first part. Preliminary statistics for the discriminant analysis are the second part, and the results of the discriminant analysis are the third part.

Definitions of Key Statistical Terms

1. Canonical discriminant function. This is the equation produced from the data to predict membership in two or more mutually exclusive groups. In this study there are two groups: leavers and stayers. The equation for each subject's discriminant score was $D = $ constant $+ b_1$ (emotional factors) $+ b_2$ (school and community support) $+ b_3$ (instructional support) $+ b_4$ (preparation in teaching curriculum, managing students, and assessing students) $+ b_5$ (collaboration) $+ b_6$ (compensation and benefits) $+ b_7$ (motivation to teach) $+ b_8$ (culture shock), where D is the discriminant score and b is the unstandardized canonical discriminant function coefficient. The maximum number of functions is one less than the number of groups (Martinez, 2001). One function was produced in this study because there were two groups (leavers and stayers).

2. Canonical discriminant function coefficient. When using a discriminant analysis, a discriminant function coefficient is of particular importance. The discriminant analysis

produces two types of discriminant function coefficients (standardized and unstandardized) for each predictor variable. The standardized coefficients show the relative importance of each predictor variable compared to all other predictor variables, while the unstandardized weights show the relative significance of each variable based on its own scale of measurement (Martinez, 2001). The functions are standardized to remove the effects of differing means and standard deviations in each of the predicting variables.

3. Eigenvalue. Eigenvalues associated with discriminant functions indicate how well the functions discriminate the groups; the larger the eigenvalue, the better the groups are discriminated. An eigenvalue for a discriminate function is the ratio of the between-groups sums of squares to the within-groups sums of squares. An eigenvalue is used for evaluating the strength of the function (Green et al., 2000).

4. Canonical correlation. This is the correlation between the discriminant scores and the levels (leavers and stayers) of the dependent variable. The higher the correlation the better the discriminating power of the discriminant function.

5. Wilks' lambda. The wilks' lambda indicates how good the discriminating power of the model is and tests the significance of each function (Bogler, 2000; Martinez, 2001). It is the ratio of the within-groups sum of squares to the total sum of squares and is, in this study, the proportion of variance not explained by differences between leavers and stayers on the predictor variables.

6. Chi-square test. Chi-square is used to evaluate whether the proportions of individuals who fall into categories of a variable are equal to hypothesized values (Green et al., 2000). "A high chi-square value indicates that the function discriminates well" (George & Mallery, 2001).

7. Structure matrix. The structure matrix shows how all the variables relate to each function at the same time (Martinez, 2001). The matrix contains the pooled within-groups coefficients of correlations between the scores on the predictor variables and the scores calculated with the discriminant function. When squared, this correlation is an estimate of the proportion of variance in the discriminant scores explained by the predictor variable.

8. Classification. The predictors are linearly combined to predict membership in the leaver or stayer groups. The linear combinations of predictor variables are called classification or discriminant functions. The accuracy of classification is determined by computing the percentage of cases correctly classified into groups based on the classification functions (Green et al., 2000).

Preliminary Statistics

Preliminary statistics include means and standard deviations (see Table 26 for the standard deviations) of the predictors; ANOVA's assessing differences between the leavers and stayers on the predictor variables; pooled within-groups covariance and correlation matrices for the predictor variables (see Appendix I); covariance matrices for the predictor variables for the leavers, stayers, and both together; and a test of equality of the within-group covariance matrices.

The tests for differences between the means of the leavers and stayers on the predictor variables are in Table 31. These statistics indicate significant differences in means on all but two predictors: *collaboration* and *motivation to teach*. Stayers scored higher than leavers on *emotional factors; school and community support; instructional support; preparation for teaching curriculum, managing students, and assessing students; compensation and benefits; and culture shock.*

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Table 31

Group Means, Wilks' Lambda (U-statistic) and Univariate F-ratio for Predictor Variables Classified by Leavers and Stayers

	Leaver		Stayer		Total				df (Between groups)	df (Total)	
Predictor	N	M	N	M	N	M	Wilks' Lambda	F			p
Emotional factors	34	2.82	270	3.32	304	3.26	.87	43.55	1	302	.00
School and community support	34	2.61	270	2.84	304	2.81	.98	6.53	1	302	.01
Instructional support	34	2.48	270	2.84	304	2.80	.97	9.67	1	302	.00
Preparation in teaching curriculum, managing students, and assessing students	34	2.33	270	2.60	304	2.57	.98	6.20	1	302	.01
Collaboration	34	2.69	270	2.87	304	2.85	.99	2.34	1	302	.13
Compensation and benefits	34	1.92	270	2.33	304	2.29	.94	18.09	1	302	.00
Motivation to teach	34	3.15	270	3.27	304	3.26	1.00	1.39	1	302	.24
Culture shock	34	2.36	270	2.74	304	2.69	.95	14.44	1	302	.00

Box's M is a measure of multivariate normality (see Table 32). The eight in the rank column indicates that there is an 8 x 8 matrix, the number of variables in the discriminant equation. The results indicated there were significant deviations from multivariate normality among the eight predictors ($\underline{p}$ = .00). This indicates that one or more of the predictor variables may not be distributed normally, a violation of one of the assumptions underlying discriminant analysis. Regardless of this violation, "It has been found that…the discriminant function can still often perform well" (George & Mallory, 2001, p. 276). Thus, I proceeded with the analysis.

Table 32

Test of Equality of Group Covariance Matrices Using Box's M

Group	Label	Rank	Log determinant	Box's $\underline{M}$	Approx $\underline{F}$	df1	df2	p
1	Leaver	8	-11.66					
2	Stayer	8	-10.77					
Pooled within-groups		8	-10.62	73.13	1.85	36	11267.68	.00*

Table 33 is the structure matrix and contains the pooled within-groups correlations between the scores on the predictor variables and the scores calculated with the discriminant function. The predictors are ordered by the size of the correlation. Because the leavers and stayers have unequal Ns, correlation coefficients are calculated for each group and then averaged to get the pooled within-groups correlation. The structure matrix shows how all the variables relate to the function at the same time (Martinez, 2001). The predictor variables with the highest coefficients made the largest contribution in discriminating between leavers and stayers. Loadings ranged from (.15) weak to (.84) strong with *emotional factors* having the largest coefficient.

Table 33

Structure Matrix, $\underline{N}$ = 304

Predictor	Correlation
Emotional factors	.84
Compensation and benefits	.54
Culture shock	.48
Instructional support	.40
School and community and support	.33
Preparation in teaching curriculum, managing students, and assessing students	.32
Collaboration	.20
Motivation to teach	.15

Note. These are the pooled within-groups correlations between the scores on the predictor variables and the scores calculated with the canonical discriminant function.

The Discriminant Function and the Classification of Leavers and Stayers

The Discriminant Function

Table 34 contains the standardized and unstandardized canonical discriminant function coefficients and the Wilks' lambda for each predictor variable. Unstandardized coefficients are the weights assigned to the predictor variables for calculating the discriminant scores. The standardized coefficients are the unstandardized coefficients expressed in standard deviations. The coefficients are standardized to remove the effects of differing means and standardized deviations in the predicting variables. The standardized coefficients are used to compare the relative contributions of the predictor variables to the discriminant score. Thus, the predictor with the largest effect on choosing whether to stay or leave the profession is *emotional factors (.75). Compensation and benefits (.49)* and *culture shock (.21)* were second and third, respectively. Wilks' lambda is useful in interpreting the findings. Because lambda is the percentage of variance in the discriminant scores not explained by the variance in the predictor

variable, it is a useful statistic for evaluating the variables as predictors. As indicated, the best of the predictors is *emotional factors* followed by *compensation and benefits* and *culture shock*. However, these account for only small proportions of variance in the discriminant scores. Hence, the model is not very effective in discriminating between leavers and stayers.

The coding for the grouping variable (leavers and stayers) was: leaver = 1 and stayer = 2. The standardized coefficient has both positive and negative coefficients. The positive discriminant function coefficients in Table 34 indicate greater likelihood of participants being stayers, and negative discriminant function coefficients indicate greater likelihood of participants being leavers. From these data, the following distinctions about leavers and stayers can be made. Stayers thought that there was more emotional support and instructional support. Stayers also felt more positively about their preparation for teaching, their compensation, and stayers were not as shocked with their teaching experience as leavers. Leavers thought there was more support from the school and community.

Table 34

Analysis of Variables Discriminating Between Leavers and Stayers, $\underline{N}$ = 304

Predictor	Canonical discriminant function coefficients		Wilks' Lambda	Proportion of variance explained
	Standardized	Unstandardized		
Emotional factors	.75	1.79	.87	.13
School and community support	-.14	-.28	.98	.02
Instructional support	.12	.19	.97	.03
Preparation in teaching curriculum, managing students, and assessing students	.00	.00	.98	.02
Collaboration	-.10	-.15	.99	.01
Compensation and benefits	.49	.90	.94	.06
Motivation to teach	.12	.20	1.00	.00
Culture shock	.21	.40	.95	.05

The group centroids give the average discriminant score for subjects in the different groups on each function (George & Mallery, 2001). When there is a difference between centroids, the discriminant function separates the two groups. The group centroids of –1.27 and .16 suggest that the discriminant function separates leavers and stayers. The centeroids for each group are in Table 35.

Table 35

Canonical Discriminant Functions Evaluated at

Group Means (Group Centroids)

Group	$\underline{N}$	Centeroid
Leaver	34	-1.27
Stayer	270	.16

The eigenvalue and the Wilks' lambda are used to determine the strength and the significance of each function, respectively. In this analysis, the eigenvalue is .20 and the overall Wilks' lambda is .83 (see Table 36). This indicated that overall the predictors differentiated between the two groups (leavers and stayers), but not well. The canonical correlation (.41) revealed that the predictor variables explained 17 percent ($.41^2$) of the variance in the discriminant scores. The discriminant function provided a low degree of association between the predictors and the discriminant scores.

Table 36

Statistics for the Discriminant Function

Function	Eigenvalue	% of variance	Cumulative %	Canonical correlation	Test of function	Wilks' Lambda	X^2	df	p
1	.20	100.0	100.0	.41	1	.83	55.39	8	.00

The Classification of Leavers and Stayers: Casewise Statistics

In classifying individuals, the predictors are linearly combined in a regression equation, called a Fisher's linear discriminant function, to predict group membership. Statistics for this function are in Table 37. One test of how well the predictor variables discriminate leavers from stayers is to use the discriminant function (a regression equation) to predict group membership for the cases used in the analysis. Whichever function is largest determines into which group the case is predicted to belong. The classification analysis was run using all cases in the data set. Of the significant domains, leavers only scored higher than stayers in *school and community support.* The higher the coefficient the more discrimination there is between leavers and stayers.

Table 37

Fisher's Linear Discriminant Function

Classification Coefficients, <u>N</u> = 304

	Criterion variable	
Predictor	Leaver	Stayer
Emotional factors	9.19	11.76
School and community support	3.67	3.28
Instructional support	.72	.99
Preparation in teaching curriculum, managing students, and assessing students	3.35	3.35
Collaboration	1.26	1.05
Compensation and benefits	4.41	5.70
Motivation to teach	9.10	9.39
Culture shock	3.07	3.64
(Constant)	-48.60	-58.57

A summary of the number and percentage of subjects classified correctly and incorrectly is in Table 38. The percent correctly classified for leavers was 26.5 percent and 99.6 percent of stayers were correctly classified. Based on the mean score for each domain, one should be able to correctly determine whether the respondent is a leaver or stayer 91.4 percent of the time. This could be done more accurately for emotional factors because emotional factors had the highest proportion of variance explained.

To assess how well the classification procedure would predict in a new sample, the leave-one-out technique was utilized. Classification functions are derived on all cases minus one. It is

repeated until all cases have been left out once (Green et al., 2000, p. 286). In the cross–validated

analysis, 23.5 percent of leavers and 99.3 percent of stayers were correctly classified. The correct

classification remains stable through cross-validation with a slight loss in correct classification

for both leavers and stayers. A more valid test of the discriminant function would be the

collection of data on a population of future leavers and stayers and applying the discriminant

function to predict their classification. Large percentages of correctly classified leavers and

stayers would lend credence to the effectiveness of the predictor variables as tools for the early

identification of leavers and stayers. The value of such tools is quite obvious.

Table 38

Classification of Leavers and Stayers Using the Discriminant Function[b,c]

	All-cases analysis			
	Predicted Group Membership			
	Leaver		Stayer	
	N	%	N	%
Leaver	9	26.47	25	73.53
Stayer	1	.37	269	99.63
Ungrouped	1	20.00	4	80.00
	Cross-validation analysis[a,c]			
Leaver	8	23.53	26	76.47
Stayer	2	.74	268	99.26

[a]Cross validation is done only for those cases in the analysis. In cross validation, each case is classified by the functions derived from all cases other than that case.

[b]91.4% of original grouped cases correctly classified.

[c]90.8% of cross-validated grouped cases correctly classified.

CHAPTER 4
DISCUSSION, POST-STUDY THEORY, IMPLICATIONS FOR PRACTICE,
RECOMMENDATIONS FOR FUTURE RESEARCH, AND REFLECTIONS

A discussion of the discriminant analysis, the demographic variables, and the literature is presented. The theory presented in Chapters 1 and 2 was revised, and a post-study theory using the significant domains is presented. Finally, implications for practice, recommendations for future research, and reflections are discussed.

Discussion Addressing the Discriminant Analysis

Eight predictors *(emotional factors; school and community support; instructional support; preparation in teaching curriculum, managing students, and assessing students; collaboration; compensation and benefits; motivation to teach; and culture shock)* were used in the discriminant analysis to determine what factors best discriminate between leavers and stayers. The overall Wilks' lambda (.83) was significant (p≤.01) indicating that the predictors discriminated between the two groups (leavers and stayers), but not well.

The leavers scored the lowest mean in *compensation and benefits* and the next lowest mean in *preparation in teaching curriculum, managing students, and assessing students.* Leavers, therefore, felt that their compensation was not satisfactory and that they were not well prepared for the classroom. Leavers thought there was more support from the school and community than stayers.

The stayers, as well, had the two lowest means in the areas of *compensation and benefits* and *preparation in teaching curriculum, managing students, and assessing students*. They also agree that their salaries could be better and that they could have been better prepared for the classroom but not to the degree of leavers. Stayers thought there was more emotional and instructional support than leavers.

There was a statistically significant difference between leavers and stayers in six of the eight domains: They are: *emotional factors; school and community support; instructional support; preparation in teaching curriculum, managing students, and assessing students; compensation and benefits; and culture shock.* As indicated, the best of the predictors is *emotional factors* followed by *compensation and benefits* and *culture shock.*

In an attempt to predict whether a teacher would leave or stay in the profession, 91.4 percent of the cases were correctly classified. Nine (26.5%) leavers and 269 (99.6%) stayers were correctly classified. In the cross validation analysis, eight (23.5%) leavers and 268 (99.3%) were correctly classified. Overall, 90.8 percent of the cases were correctly classified. This means that approximately one in ten cases would be misidentified if the predictor variables were applied to the selection of teachers. However, over 75 percent of the leavers would be misidentified as stayers. Thus, the predictor variables are not very useful to personnel administrators in making employment decisions.

Discussion Addressing the Demographic Variables

The data indicate a loss of 11 percent of first, second, and third-year teachers. This figure is lower than the reported figures from the U.S. Department of Education (1995), where 14 percent of teachers are lost in the first three years of teaching. It is much lower than the figures reported by Mark and Anderson (1977) who reported 40 percent of the teachers were lost during the first year of teaching. It is also lower than the National Education Association's (2003) report that one-third of new teachers leave the profession within the first three years. The decrease in the loss of new teachers may be indicative of the success of interventions that have been put in place to date.

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In this study, 1.31 percent of the responding teachers left after the first year, 2.29 percent left after the second year, and 7.52 percent left after the third year. Of the 34 teachers classified as leavers, 11.76 percent were first year teachers, 20.59 percent were second year teachers, and 67.65 percent were third year teachers. The response rate for this study was 25.7 percent. The low response rate coupled with the two-stage replacement process for obtaining respondents could have affected the results by providing conservative estimates of the number of teachers leaving. Leavers may be unhappy teachers and just did not want to respond to the survey.

There were no significant differences between leavers and stayers on the demographic variables except for years of experience. A greater proportion of leavers were single, male, and minority teachers between the ages 25 – 30. The greater proportion were high school teachers who left after the third year. The largest proportion of leavers earned below a 3.0 grade point average in a traditional teacher preparation program. A higher proportion of leavers were from the south and almost equal proportions of leavers taught in either a suburban or urban setting.

A greater porportion of stayers were married, female, white teachers. Equal proportions were either under 25 or over 30. The greater proportion of stayers were first-year, middle school teachers. A greater proportion of stayers earned over a 3.5 grade point average and prepared for teaching in an alternative teacher preparation program. The larger proportions of stayers were from the northeast and taught in a rural setting.

Discussion Addressing the Literature

As I researched the topics of job satisfaction of new teachers and teacher retention, I developed a theory to explain differences in leavers and stayers (see Figure 3). The theory evolved from the factors found in the reviewed studies. They were organized into seven major areas that became the domains (see Figure 4). The domains were adjusted and refined as a result

of the factor analysis. Using the same factors, eight domains emerged. The eight domains were

used in the final analysis. All domains were significant except *collaboration* and *motivation to*

teach. In the next section, I add findings from this study to the body of literature for the

significant domains. Table 39 is a summary of the findings. This table mirrors the tables used in

Chapter 1 for presenting the findings of previous studies. Individual item mean scores are

reported in Appendix J (Table J1 and Table J2).

Table 39

Research From this Study That Can be Added to the Body of Literature for Each Domain

Domain related to leaving or staying in education	Date	Type of study, data source	Usable sample	Findings
Emotional factors (anxiety, stress, burnout, frustration, confidence, commitment, joy of teaching)	2005	Survey National sample of teachers in their first, second, or third year of teaching. Discriminant analysis	$N = 306$	Had a high relationship to teachers choosing to leave or stay in the profession. Stayers were more positive than leavers about anxiety, stress, burnout, frustration, confidence level, and commitment. Stayers thought there was more emotional support than leavers.
Compensation and benefits (salary, comparable salary to other professions, benefits)	2005	Survey National sample of teachers in their first, second, or third year of teaching. Discriminant analysis	$N = 306$	Had a weak relationship to teachers choosing to leave or stay in the profession. Stayers were more positive than leavers about compensation and benefits.
Culture shock (length of induction program, social issues of children, parental support)	2005	Survey National sample of teachers in their first, second, or third year of teaching. Discriminant analysis	$N = 306$	Had a weak relationship to teachers choosing to leave or stay in the profession. Stayers were more positive than leavers about the induction program being long enough, social issues of the children, and parental support.

Table 39 (continued).

Research From this Study That Can be Added to the Body of Literature for Each Domain

Instructional support (induction, mentoring, professional development)	2005	Survey National sample of teachers in th first, second, or third year of teaching. Discriminant analysis	N = 306	Had a weak relationship to teachers choosing to leave or stay in the profession. Stayers were more positive than leavers about induction, mentoring, and professional development programs in place to help them. Stayers thought there was more instructional support than leavers.
School and community support (administrative support, positive environment, community partnerships)	2005	Survey National sample of teachers in their first, second, or third year of teaching. Discriminant analysis	N = 306	Had a weak relationship to teachers choosing to leave or stay in the profesion. Stayers thought there was less school and community support than leavers.
Preparation in teaching curriculum, managing students, and assessing students (assessing student' abilities, curriculum, classroom management)	2005	Survey National sample of teachers in their first, second, or third year of teaching. Discriminant analysis	N = 306	Had a weak relationship to teachers choosing to leave or stay in the profession. Stayers were more positive than leavers about their preparation for the classroom.

Post-Study Theory

As a result of the discriminant analysis, a new theory has been developed that researchers and practitioners may find useful. The post-study theory displays the domains that are significant when one chooses to stay or leave the teaching profession. The theory is in Figure 7. The underlying assumption in this theory is that the domains lead to job satisfaction and job satisfaction leads to teacher retention. The domains in the theory are listed by size of the pooled within-groups correlations between the scores on the predictor variables and the scores calculated with the canonical discriminant function. The domains *collaboration* and *motivation to teach* were dropped from the theory because their associated Wilks' lambda was not statistically significant. The organized scheme of factors within the domains is in Figure 8.
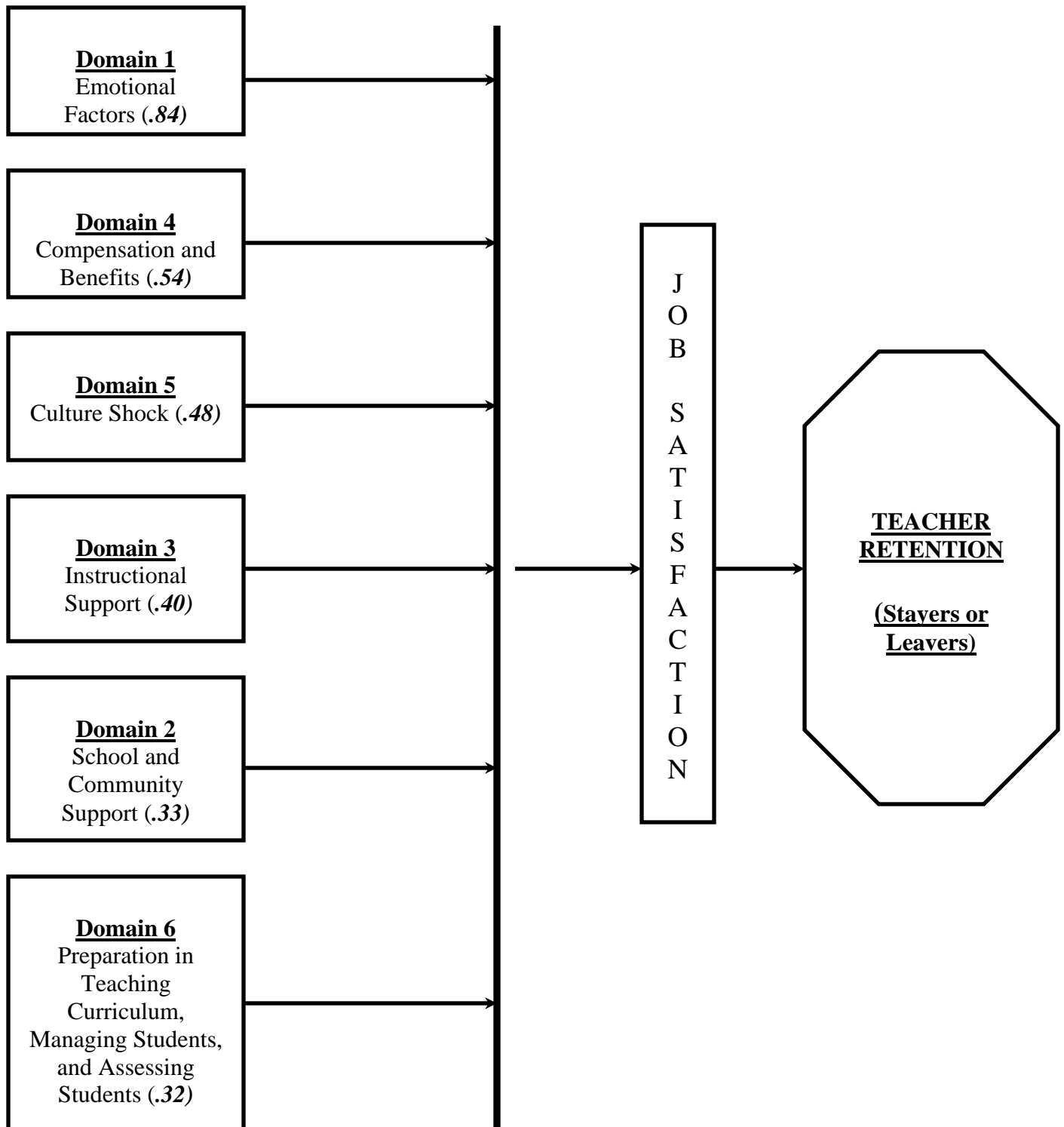
Figure 7. Post-study theory. Domains of teacher job satisfaction and their relationships to teacher retention.
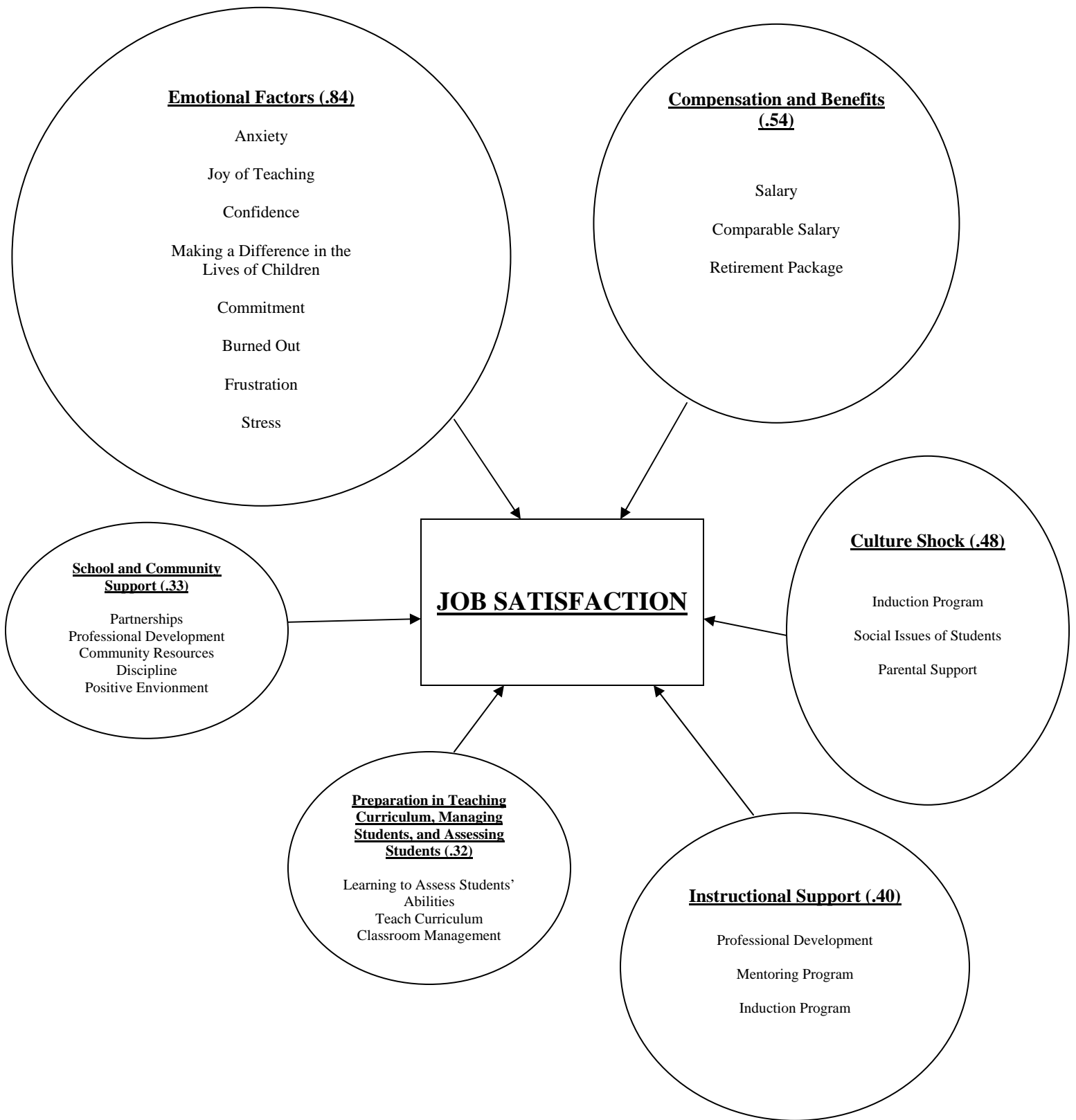
Figure 8. A summary of factors in the domains that affect job satisfaction and teacher retention.
Significant domains in the post-study theory.

Implications for Practice

The strongest relationship between a teacher's satisfaction level and choosing to leave or stay in the profession is *emotional factors*. This area includes stress, burnout, motivation, self-confidence, and commitment. Efforts to retain teachers should include interventions that are specific to the domain *emotional factors*. Stayers felt there was more emotional support than leavers, and this trend should continue.

With respect to these results, school division administrators and school-level administrators may make a difference in the retention rate. Principals and assistant principals can help new teachers reduce the stress level that is associated with the multiple tasks of teaching on a daily basis. Based on the results that the *emotional factors* have the strongest relationship, it would pay school districts to pay close attention to the assignment of new teachers and to design staff development programs specifically for the new teacher. Support groups that meet regularly that include administrators and experienced teachers should be a part of district and school yearly plans.

School divisions should study the new teacher closely. An assessment early in the new teacher's career should be administered that reflects the six areas identified from this model that have an impact on new teacher satisfaction. Analyses of the data to determine their weaknesses can help local administrators provide interventions that will reduce stress and build confidence. Procedures should be in place to develop workshops based on the results of the assessment. The workshops should be tailored to the individual needs of new teachers and not necessarily on the "hot topics" in the educational field. Grouping teachers who have similar weaknesses and focusing strictly on their weaknesses would eliminate unnecessary time spent in workshops

where they have mastered certain topics. Workshops should be held during the school day to eliminate fatigue and give new teachers the opportunity for a "break" from the classroom setting.

Becoming an effective teacher does not happen overnight, and it does not happen after one semester of student teaching. Maturation into an effective teacher takes guidance and support from a variety of sources and the willingness of the novice teacher to ask for and accept help from experienced teachers and administrators. Mentoring of new teachers with an experienced teacher and informal chat sessions with an administrator are two examples of how a new teacher can receive support. "New teacher" sessions should be held more often than the regular monthly faculty meeting. In fact, new teachers should probably meet with an assigned staff member on a weekly basis throughout the first year of one's career. Luncheons and celebrations are easy ways to help new teachers feel that they are important, loved, and supported. Without a support system, new teachers do, indeed, become stressed, resulting in burnout too early in one's career. Stress reduces the confidence of a teacher that ultimately results in lower self-esteem and, thus, lower commitment to the field of education.

Compensation and benefits had a moderate effect for teachers when choosing to leave or stay. Raising salaries and increasing benefits will ultimately keep some teachers in the field. Aligning salaries to other areas that require the same education will help keep people in the teaching profession. Otherwise, we will continue to lose teachers to the corporate world where salaries and benefits are more lucrative.

Culture shock and *instructional support* had a moderate effect on teachers when choosing to leave or stay. Preparing teachers for the "real world" of teaching would be beneficial. Both the college or university and the local school district can implement practices that better prepare teachers. Exposing them to issues and situations that teachers face on a daily basis will help

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eliminate some of the reality shock they face when they obtain their own classroom for the first time. Often young, energetic teachers are assigned to the best teachers for observation and student teaching experiences. The experienced teacher has mastered classroom management and probably has few discipline problems. The college student should also spend a day with an assistant principal to get a larger picture of the school environment. The assistant principal could expose the young prospective teacher to classrooms where the teacher has not mastered all the facets of teaching and learning. Spending a day in the guidance office would also be beneficial so that the young teacher is exposed to some of the social issues that are brought to the school.

While a weak relationship existed between leavers and stayers in the domains *school and community support* and *preparation in teaching curriculum, managing students, and assessing students,* these areas should not be overlooked when planning interventions to retain teachers, particularly when stayers felt there was less support from the school and community than leavers. Building level administrators can have a major impact by creating a positive environment for the new teacher. Workshops that deal with procedural issues within the school would be helpful. Administrators need to consider that time spent with new teachers clarifying issues initially will eliminate problems. Supporting the new teacher, especially when it comes to major discipline problems, helps to create a level of ease for the new teacher. The principal and faculty can create a relationship with the community that fosters positive feelings for both parents and teachers. Events at school such as orientations for new students and monthly parent meetings are two examples of ways to "hook" parents as partners. Knowing that the school is actually a partner with the parent can make a difference in the overall educational environment.

Analyzing data to determine the weaknesses of new teachers so that local school districts can implement interventions is one use of the results. Sharing the results with local colleges and

universities is another use of such data. For example, if new teachers are weak in their ability to manage the classroom, the universities can focus more on classroom management skills while still completing undergraduate or graduate studies.

<div align="center">Recommendations for Future Research</div>

A theory has been developed that can be used to continue the study of teacher retention. The instrument developed as a part of this present study is a potentially useful tool for measuring the factors that discriminate between leavers and stayers though refinement of items and additional studies are needed to strengthen the model. The theory developed offers promise to future researchers. Once the model is effective in determining factors that discriminate between leavers and stayers, alternatives for similar studies can be attempted. Such alternatives are:

- The data for this study was taken from a national database. Individual states and localities can use this model to determine the factors that discriminate between leavers and stayers specific to their geographic area. An analysis of state and local data can be used to develop specific interventions needed in their area to help reduce the teacher shortage.

- This study could be replicated specific to certain demographic variables. For example, test this model specifically for elementary teachers, middle school teachers, or high school teachers. A comparison of the discriminating factors would be useful to leaders at the varying levels.

- In this study, I used the demographic variables to describe the participant and only used the domains to discriminate between leavers and stayers. In future studies, I would recommend entering the domains and the demographic variables into the analysis simultaneously. The demographic variables would be used to determine

discrimination between leavers and stayers rather than just describing the participant.

- In this study, it is assumed that leaving the field means that a teacher is dissatisfied. One could perceive this as a weakness of this theory because there were actually 12 of 42 responses where a teacher indicated they were leaving for personal reasons (see Table 29). After analyzing the reasons given in this category, it was discovered that the teacher might not be leaving the teaching profession. It appears that some will merely be taking a break while pursuing other goals. A question in future studies should try to find out from the leavers if they intend to return. In addition, a question asking the teacher to indicate their satisfaction level could be included. These data would be beneficial in determining if the person is truly a dissatisfied leaver from the profession.

- The greater proportion of teachers in this study left after the third year of teaching. This is the year that teachers achieve tenure. In addition, provisionally certified teachers usually have three years to complete all of their requirements. A question not asked on the questionnaire was "did you achieve tenure or did you complete all requirements to become fully certified?" These questions could be included in future studies. They could then be grouped into a category of "asked not to return" or "did not complete requirements for certification." These categories could affect the results and, thus, any interventions implemented.

- Using a similar model on a population of future leavers and stayers to predict their classification is recommended for a further research. A population of new teachers would provide data on domains that mirror the domains in this study.

School districts could then predict in advance whether a teacher would be a leaver or stayer based on their score. This procedure would increase the usefulness of this model. This information would be valuable in the hiring process because school districts could target interventions for teachers who would be potential leavers.

The return rate for this study was 25.7 percent. In this study, a lower number of responses than needed were retuned from the initial mailing. Therefore, efforts to obtain more responses were made through the teacher's principal. The highest return rate was from the second mailing that did include a letter to the principal. When sending surveys to teachers, particularly at the end of a school year, I would recommend utilizing the principal to increase the number of responses. In addition, in a time-sensitive survey, I would highly recommend sending a larger number of questionnaires than needed.

<p align="center">Reflections</p>

The predictor with the largest effect on choosing whether to stay or leave the profession is *emotional factors.* New teachers are overwhelmed and many have strong feelings of quitting, particularly in their first year. Many new teachers were very successful in their student teaching experience and expected the same results upon entering their first year of teaching. Support and guidance from colleagues, administrators, and central office personnel is critical to the success of new teachers. To increase the number of stayers, educational leaders should pay more attention to the support given by the school and community.

I was disappointed that the model was not effective in discriminating between leavers and stayers. However, this research is only the first step in the development of this theory. Through refinement of domains, this theory can be developed into a more effective model for learning the

discriminating factors between leavers and stayers. My hope is that a future researcher begins with the post-study theory and continues my efforts in finding the factors that best discriminate between leavers and stayers.

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Factors Affecting Job Satisfaction and
Teacher Retention for Beginning Teachers

Instructions: Please read each sentence carefully and circle your response.

SA = Strongly Agree, A = Agree,
D = Disagree, SD = Strongly Disagree

PLEASE DO NOT OMIT ANY ITEM.

1. My salary adequately meets my needs.   SA A D SD

2. The induction program for new teachers was not long enough.   SA A D SD

3. The social issues that my students face were a shock to me.   SA A D SD

4. The salary for teachers in my geographical area is comparable to the salaries of other people with the same level of education.   SA A D SD

5. As part of the professional development plan for new teachers, I am given the opportunity to observe and seek advice from experienced teachers.   SA A D SD

6. Many businesses in my community have created partnerships with the schools.   SA A D SD

7. My district provides a lucrative retirement package.   SA A D SD

8. My district stresses professional development as a way of increasing the skill level of teachers.   SA A D SD

9. I am satisfied with the way that my district spends money.   SA A D SD

10. My district included a lot of "perks," such as relocation costs and coupons from local merchants, in their recruiting process.   SA A D SD

11. The mentoring program in my district has been a useful program as it gave me the opportunity to discuss problems with an experienced teacher.   SA A D SD

Appendices

Appendix A

Questionnaire

Virginia Tech

12. The community has many resources available to deal with social problems of young people.   SA A D SD

13. My district pays an extra stipend for hard-to-fill positions.   SA A D SD

14. Administrators ensure that new teachers are not overwhelmed in their new assignments.   SA A D SD

15. The parents or guardians of my students rarely return my calls.   SA A D SD

16. My coursework specifically dealt with assessing students' abilities.   SA A D SD

17. The entire staff takes part in creating the objectives for the school's yearly plan.   SA A D SD

18. There is much growth potential in the education field.   SA A D SD

19. My courses in college prepared me to teach the curriculum for the courses that I have been assigned.   SA A D SD

20. My administrators deal with difficult students very effectively.   SA A D SD

21. My job has very few stressful days.   SA A D SD

22. More than one semester of student teaching is needed to be an effective beginning teacher.   SA A D SD

23. I have anxiety attacks when I think of going to work.   SA A D SD

24. The joy of teaching young people keeps me motivated year after year.   SA A D SD

25. I feel confident that I have the skills necessary to perform my duties.   SA A D SD

26. Teachers in my school work as a team to ensure student achievement.   SA A D SD

27. I feel that I am making a difference in the lives of children.   SA A D SD

28. Classroom discipline was addressed in very few of my teacher education classes.   SA A D SD

29. I have a strong commitment to the field of education.   SA A D SD

30. An induction program held before the start of the school year has helped me prepare for the classroom on the first day of school.   SA A D SD

31. I feel burned out by the end of September.   SA A D SD

32. My job is too frustrating for me.   SA A D SD

33. My school has a positive environment in which to teach.   SA A D SD

34. The stress on my job reduces my confidence as a teacher.   SA A D SD

35. I feel challenged in my job as a teacher.   SA A D SD

Demographic Data

36. ___ I plan to stay in the profession.
    ___ I plan to leave the profession.

37. If you plan to leave, state the reason why you are leaving.

    _____
    _____

38. ___ Age at last birthday.

39. Race:
    ___ American Indian or Alaskan Native
    ___ Asian or Pacific Islander
    ___ Hispanic
    ___ Black, not of Hispanic origin
    ___ White, not of Hispanic origin

39. Gender:
    ___ Male
    ___ Female

40. Years in Education:
    ___ First Year
    ___ Second Year
    ___Third Year

41. My teaching assignment is:
    ___ Elementary School
    ___ Middle School
    ___ High School

42. My Marital Status is:
    ___ Single   ___ Married

43. My current salary is:
    ___ Below $30,000
    ___ Between $30,000-$35,000
    ___ Over $35,000

44. My final GPA in my teacher preparation program was:
    ___ Below a 2.0
    ___ Between 2.0-2.5
    ___ Between 2.51-3.0
    ___ Between 3.01-3.5
    ___ Over a 3.5

45. I became a teacher through a:
    ___traditional (4 or 5 year teacher preparation program).
    ___alternative certification program.

47. My school district is considered to be:
    ___ in a rural setting.
    ___ in a suburban setting.
    ___ in an urban setting.

48. The state where I am employed:
    _____

49. If you are leaving the profession, state one factor that would have changed your decision:

    _____

    _____

    _____

Virginia Tech

Dear Colleague:

The retention of new teachers is a challenge facing school districts across the country. This is a study of the factors that affect the satisfaction of beginning teachers.

Your responses are vital to this study. The information gained will help schools and local school districts to understand how to more effectively deal with new teachers in an effort to increase their retention rate.

All information provided will be confidential. The number, which appears on the survey and envelope, will be used to monitor the returns. A self-addressed, stamped envelope is enclosed for your convenience.

Thank you, in advance, for your help in gaining information about the teaching profession.

Sincerely,

Karen S. Giacometti   David Parks
Doctoral Candidate   Professor

Appendix B

Cover Letter Mailed With the Survey

Dear Fellow Educator:

As a first, second, or third year teacher, you are now nearing the completion of a year of ups and downs, of successes and failures, and ultimately a year in which students have made gains in academic achievement. You have been instrumental in helping students to gain insight into the subject matter in which you have meticulously taught them.

Given the facts that there is a teacher shortage across the country and that school divisions lose new teachers at a rapid rate, there is a pressing need for individuals and organizations to learn and understand the factors that are related to job satisfaction for new teachers. Your view is important so that solutions can be considered in making the beginning teacher more successful.

You are one of approximately 1,450,000 teachers in the United States that are part of the database provided by Market Data Retrieval. Your name was drawn randomly from that database.

We are asking you to complete a brief, research-based survey. We are seeking to determine which factors related to new teachers' work environments impact the retention rate. In order that the results of the study truly represent the thinking of new teachers across the country, it is important that each questionnaire be completed and returned in the envelope provided. Your efforts to return the survey will be most appreciated.

You may be assured of complete confidentiality. The questionnaire has an identification number for mailing purposes only. This is so that we can check your name off the mailing list when your questionnaire is returned. Your name will never be placed on the questionnaire itself. You will be able to view the results of this study through the Virginia Tech database.

We would be happy to answer any questions you may have about this study. We can be contacted by e-mail (kgiacome@vt.edu) or by phone (H-757-484-1953 or W-757-465-2907).

Thank you very much, in advance, for your assistance and cooperation.

Sincerely,

Karen S. Giacometti   Dr. David J. Parks
Graduate Student   Professor
Virginia Polytechnic Institute and State University   Virginia Polytechnic Institute and State University

Appendix C

Letter Mailed to the Principal in the 2nd, 3rd and 4th Mailings

Dear Principal:

Hi, my name is Karen Giacometti, and I am a graduate student at Virginia Tech in Blacksburg, Virginia. I am writing my dissertation on the retention of new teachers. I am trying to determine the factors that new teachers find satisfactory in the field as well as what areas are causing dissatisfaction. I am focusing on the "new teacher" because we lose an average of five percent of this population each year. With a shortage of teachers facing most educational institutions, we cannot afford that kind of loss. There is a strong need for data pertaining to this topic at the national level.

In late May, I sent 450 surveys to first, second, and third year teachers. In July, I sent 300 additional surveys. As of today, I have had 200 surveys returned. In order for my results to be valid, I need additional data. I know that many teachers are on summer vacation. That is why I am asking for your help. There is a teacher's name at the bottom of this letter who was randomly chosen from a national database provided by Market Data Retrieval. Please help me to locate this teacher and have him or her fill out the enclosed survey. A self-addressed stamped envelope is provided. I need surveys from both teachers who will be returning and those who have chosen to leave the profession.

I appreciate your assistance in my efforts to gather as much information as I possible on this topic. I hope that my efforts will help determine how we, as administrators, can make a difference for new teachers. I am hoping to begin analyzing the data by mid-September; therefore, please try to contact the teacher prior to that date. If you have any questions, please feel free to contact me at my e-mail address (kgiacome@vt.edu) or my work phone number (757-465-2907). Thank you again for helping me.

Sincerely,

Note. The first sentence in paragraph two was altered for each mailing. The sentence reflected the current data.

Appendix D

Questions by Domain Used for Developing the Content Validation Instrument
(Prior to First Content Validity Study)

Domain 1 – Compensation	**Domain 2 – Preservice Preparation**
1. My salary adequately meets my needs. 2. The fringe benefits (insurance, investment plans, etc.) provided in my division are extremely generous. 3. My school division provides extras for their teachers in the way of leave, sabbatical, scholarships to further one's education, payment for coursework, etc. 4. The salary for teachers in my geographical area is comparable to other people with the same level of education. 5. There is a fair system of getting "rewards" for our increased efforts. 6. My division matches my employee contribution (with parameters) for a tax-sheltered annuity. 7. My division provides a lucrative retirement package. 8. My division included a lot of "perks" in their recruiting process such as relocation costs and coupons from local merchants. 9. My division pays an extra stipend for hard-to-fill positions.	1. My courses in college prepared me to teach the curriculum for the courses that I have been assigned. 2. There were courses in my undergraduate studies that dealt specifically with dealing with the diversity of students that I face each day. 3. One semester of student teaching is not sufficient in preparing one for the first year of teaching. 4. Classroom management was taught in my undergraduate program. 5. Handling conflicts was part of my studies in my undergraduate program. 6. My coursework specifically dealt with assessing students' abilities. 7. I feel confident that I have the skills necessary to perform my duties as a teacher. 8. Classroom discipline was never addressed in any of my classes. 9. There should be more time spent in the schools and in the classroom than one semester of student teaching.
Domain 3 – External Forces	**Domain 4 – School Culture**
1. Many businesses in my community have created partnerships with the schools. 2. My students' parents are very supportive when I have asked for their help. 3. The social issues that my students face were a shock for me. 4. The job availability for my field is encouraging. 5. My division could be facing layoffs in the near future. 6. I am satisfied with the way that my division spends money. 7. The parents/guardians of my students never return my calls. 8. The community has a lot of resources available to deal with social problems of young people. 9. The community has a lot of resources available	1. My administrators support my decisions and actions. 2. My teaching job has an endless amount of paperwork. 3. There are too many duties in my job that are not instructional in nature. 4. My principal supports the staff when we try new methods. 5. The administrators make sure that new, inexperienced teachers do not feel isolated in their job. 6. The organization of the special education department in my building causes too much paperwork from the general education teacher. 7. My work environment is very positive in nature.

to deal with multicultural issues.
10. There are too many unnecessary central office positions in my division.
11. There are too many unnecessary non-instructional positions in my division.

8. My principal makes sure that we have all the materials needed to teach our subject.
9. My students are very well behaved.
10. My administrators deal very well with difficult pupils.
11. There is too much violence at my school.
12. A large majority of the students in my building have no respect for adults; however, the administrators give them strong discipline action.
13. The administrators set the tone for a very safe environment.
14. The evaluation process for teachers is clearly stated to the entire staff.
15. The entire staff takes part in creating the vision, mission, and objectives for the school's yearly plan.
16. The staff is focused and cohesive in helping all students in the building.
17. The school climate created by a strong leadership team and support from the staff helps to create a positive environment in which to teach.

Domain 5 – Inservice Training

1. "The Beginner Teacher" program held before the start of the school year helped me to be better prepared for my new role as a classroom teacher.
2. The mentoring program in my division has been very helpful.
3. As part of the professional development plan for new teachers, I am given the opportunity to observe and seek advice from experienced teachers.
4. My division has a staff development program that has enabled me to enhance my skills as a teacher.
5. The feedback from my mentor's visits to my classroom has been very useful.
6. The portfolio requirement in my division has helped me to reflect on my strengths and weaknesses.
7. The induction program for new teachers was not long enough.
8. My division stresses professional involvement as a way of increasing the skill level of teachers.

Domain 6 – Motivation to Teach

1. I went into teaching because it is such a challenging profession.
2. There is a lot of room to grow professionally in my field.
3. The philosophy of public school education inspires me to continue to teach.
4. I am honored to be a teacher.
5. I love working with kids in all areas of the school setting (teaching, coaching, mentoring, etc.).
6. I feel challenged in my job as a teacher.
7. I love it when I know a child has learned something from me.
8. I have found joy in my career which keeps me motivated year after year.
9. The social status of being a teacher is satisfactory to me.
10. I feel like I am making a difference in the lives of children.
11. I feel a strong commitment to the field of education.
12. In general, people do not think highly of teachers.

Domain 7 – Emotional Factors	
1. I get stressed almost everyday on my job. 2. I feel burned out by the end of September. 3. I have anxiety attacks when I think of going to work. 4. When my attitude is positive, my day goes better. 5. My job has very few stressful days. 6. The stress on my job reduces my confidence level as a teacher. 7. My students' poor behavior causes me to be stressed. 8. My administrators cause stress in my life. 9. My colleagues' support helps to reduce my stress level. 10. Teachers are often "burned out" too early in the year. 11. My job is too frustrating for me. 12. My enthusiasm in my classroom is contagious, and it rubs off on my students. 13. My "upbeat, positive" approach with the students helps them to learn and causes my job to be less stressful.	

Note. These questions were used in Round 1 of the content validation process. They were revised based on input from the participants. The revised questions are in Appendix E and Appendix F.

Definitions and Content Validity Instrument

WHAT FACTORS AFFECT JOB SATISFACTION AND TEACHER RETENTION FOR BEGINNING TEACHERS?

CONTENT VALIDITY INSTRUMENT
DEFINITIONS

Definitions for domains used to categorize factors that contribute to job satisfaction for beginning teachers:

Domain 1: Compensation	The wage rate and the expected benefits for teachers (Gritz & Theobald, 1996; Murnane & Olsen, 1989b). To include but not limited to wages, fringe benefits, scholarships, tuition reimbursement, coupons from community organizations, relocation costs, and signing bonuses.
Domain 2: Preservice preparation	A teacher education program at the college or university level that provides instruction for teacher candidates to become effective facilitators of the teaching-learning process (Eberhard, Reinhardt-Mondragon, Stottlemyer, 2000; Huling, 1998).
Domain 3: Inservice training	Refers to the knowledge obtained once you accept the role of being a teacher. The on-the-job training a teacher receives to enhance the effectiveness and the understanding of their role as a teacher (Darling-Hammond & Sclan, 1996; Eberhard, Reinhard-Mondragon, Stottlemyer, 2000). This knowledge can be obtained through the division's induction process (Newcombe, 1990), use of a portfolio (Wolf, 1991), the participation in a mentoring program (Virginia Department of Education, Division of Teacher Education and Licensue, 2000a), and school and division-wide professional development (Choy & Chen, 1998).
Domain 4: School culture	School culture includes the "organization's values and visions and the everyday experiences of the school community members" (Darling-Hammond & Sclan, 1996, p. 86).

Domain 5: External forces	Refers to the outside factors that could help or hinder you as you perform your duties as a teacher. Partnerships, minority affiliations, community organizations, parental involvement, social issues and conditions, increased diversity, spending by district, and job availability are a few examples of external forces.
Domain 6: Motivation to teach	Refers to your feelings about the teaching profession. Some factors include the following: desire to work with young people and stimulated to teach others, feel efficacious and motivated in the classroom (Darling-Hammond & Sclan, 1996; Faupel, 1992; Huberman, 1989); feel challenged in profession and see opportunities for professional growth (Chapman & Lowther, 1982; Darling-Hammond & Sclan, 1996); strong commitment to the field of education (Chapman, 1984). In addition, how others perceive the role of the teacher in the community is an example of motivation to teach.
Domain 7: Emotional factors	The mental health of the teaching staff (Coates & Thoresen, 1976). Positive factors include the following: enthusiastic, positive, upbeat. Negative factors that hinder the teacher's desire to teach include the following: stress, anxiety, burnout (Terry, 1997).

WHAT FACTORS AFFECT JOB SATISFACTION AND TEACHER RETENTION FOR BEGINNING TEACHERS?

Directions: Circle the number of the appropriate response.

Domains

Teacher beliefs about job satisfaction:

1. *Compensation*   4. *School Culture*   7. *Emotional Factors*
2. *Preservice Preparaton*   5. *External Forces*
3. *Inservice Training*   6. *Motivation to Teach*

Clarity Ratings: 1 = very unclear, delete; 2 = somewhat clear, revise; 3 = clear, leave as written

(For any items you rate as 1 or 2 for clarity, please write your suggestions for improvement directly on this page.)

Questionnaire Statements	Domain	Clarity
1. My salary adequately meets my needs.	1 2 3 4 5 6 7	1 2 3
2. My division matches my employee contribution (with parameters) for a tax-sheltered annuity.	1 2 3 4 5 6 7	1 2 3
3. There were undergraduate courses during my studies that dealt specifically with the diverse student population that I encounter daily.	1 2 3 4 5 6 7	1 2 3
4. Classroom discipline was addressed in very few of my classes.	1 2 3 4 5 6 7	1 2 3
5. The mentoring program in my division has been a useful program as it gave me the opportunity to discuss problems with an experienced teacher.	1 2 3 4 5 6 7	1 2 3
6. More than one semester of student teaching is needed in the schools and classrooms.	1 2 3 4 5 6 7	1 2 3
7. I feel confident after completing my requirements to become a teacher that I have the skills necessary to perform my duties.	1 2 3 4 5 6 7	1 2 3

Directions: Circle the number of the appropriate response.

Domains

Teacher beliefs about job satisfaction:

1. *Compensation*   4. *School Culture*   7. *Emotional Factors*
2. *Preservice Preparation*   5. *External Forces*
3. *Inservice Training*   6. *Motivation to Teach*

Clarity Ratings: 1 = very unclear, delete; 2 = somewhat clear, revise; 3 = clear, leave as written

(For any items you rate as 1 or 2 for clarity, please write your suggestions for improvement directly on this page.)

Questionnaire Statements	Domain	Clarity
8. My division has a staff development program that has enabled me to enhance my skills as a teacher.	1 2 3 4 5 6 7	1 2 3
9. My principal is very supportive of the staff when new teaching methods are being implemented.	1 2 3 4 5 6 7	1 2 3
10. My administrators deal with difficult students very effectively.	1 2 3 4 5 6 7	1 2 3
11. My students' parents are very supportive when I have asked for their help.	1 2 3 4 5 6 7	1 2 3
12. The job availability is encouraging in my field of expertise (see footnote for explanation of shading).	1 2 3 4 5 6 7	1 2 3
13. A large majority of the students in my building have no respect for adults; however, the administrators impose strong discipline.	1 2 3 4 5 6 7	1 2 3
14. My division stresses professional development activities as a way of increasing the skill level of teachers.	1 2 3 4 5 6 7	1 2 3
15. The staff works as a team to ensure student achievement.	1 2 3 4 5 6 7	1 2 3
16. The evaluation process for teachers is implemented with clear objectives.	1 2 3 4 5 6 7	1 2 3
17. The school climate in my building is positive and creates a high level of staff morale.	1 2 3 4 5 6 7	1 2 3
18. The community has a lot of resources available to deal with multicultural issues.	1 2 3 4 5 6 7	1 2 3

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Directions: Circle the number of the appropriate response.

Domains

Teacher beliefs about job satisfaction:

1. Compensation	*4. School Culture*	*7. Emotional Factors*
2. Preservice Preparation	*5. External Forces*	
3. Inservice Training	*6. Motivation to Teach*	

Clarity Ratings: 1 = very unclear, delete; 2 = somewhat clear, revise; 3 = clear, leave as written

(For any items you rate as 1 or 2 for clarity, please write your suggestions for improvement directly on this page.)

Questionnaire Statements	Domain	Clarity
19. I get stressed almost everyday on my job.	1 2 3 4 5 6 7	1 2 3
20. I have a strong commitment to the field of education.	1 2 3 4 5 6 7	1 2 3
21. The non-instructional positions utilize monetary resources that could be used to purchase much needed supplies for the classroom.	1 2 3 4 5 6 7	1 2 3
22. The social status of the teaching profession is encouraging.	1 2 3 4 5 6 7	1 2 3
23. My job has very few stressful days.	1 2 3 4 5 6 7	1 2 3
24. When my attitude is positive, my day goes better.	1 2 3 4 5 6 7	1 2 3
25. I went into teaching because it is such a challenging profession.	1 2 3 4 5 6 7	1 2 3
26. As part of the professional development plan for new teachers, I am given the opportunity to observe and seek advice from experienced teachers.	1 2 3 4 5 6 7	1 2 3
27. The feedback from my mentor's visits to my classroom has been very useful.	1 2 3 4 5 6 7	1 2 3
28. The organization of the special education department in my building creates too much paperwork for the general education teacher.	1 2 3 4 5 6 7	1 2 3
29. The entire staff takes part in creating the vision, mission, and objectives for the school's yearly plan.	1 2 3 4 5 6 7	1 2 3
30. Violence and major discipline problems exist in my school.	1 2 3 4 5 6 7	1 2 3

Directions: Circle the number of the appropriate response.

Domains

Teacher beliefs about job satisfaction:

1. *Compensation*   4. *School Culture*   7. *Emotional Factors*
2. *Preservice Preparation*   5. *External Forces*
3. *Inservice Training*   6. *Motivation to Teach*

Clarity Ratings: 1 = very unclear, delete; 2 = somewhat clear, revise; 3 = clear, leave as written

(For any items you rate as 1 or 2 for clarity, please write your suggestions for improvement directly on this page.)

Questionnaire Statements	Domain	Clarity
31. The school climate created by a strong leadership team and support from the staff helps to create a positive environment in which to teach.	1 2 3 4 5 6 7	1 2 3
32. My administrators support my decisions and actions.	1 2 3 4 5 6 7	1 2 3
33. My division provides a lucrative retirement package.	1 2 3 4 5 6 7	1 2 3
34. My division pays an extra stipend for hard-to-fill positions.	1 2 3 4 5 6 7	1 2 3
35. Classroom management was taught in my undergraduate program.	1 2 3 4 5 6 7	1 2 3
36. "The Beginner Teacher" induction program held before the start of the school year helped me prepare for the classroom on the first day of school.	1 2 3 4 5 6 7	1 2 3
37. Part of my undergraduate program of studies included "handling conflicts".	1 2 3 4 5 6 7	1 2 3
38. Too many duties related to my job do not involve instruction.	1 2 3 4 5 6 7	1 2 3
39. The social issues that my students face were a shock for me.	1 2 3 4 5 6 7	1 2 3
40. The induction program for new teachers was not long enough.	1 2 3 4 5 6 7	1 2 3
41. The portfolio requirement in my division has helped me to reflect on my strengths and weaknesses.	1 2 3 4 5 6 7	1 2 3

Directions: Circle the number of the appropriate response.

Domains

Teacher beliefs about job satisfaction:

       1. Compensation   **4. School Culture**   **7. Emotional Factors**
       2. Preservice Preparation   **5. External Forces**
       3. Inservice Training   **6. Motivation to Teach**

Clarity Ratings: 1 = very unclear, delete; 2 = somewhat clear, revise; 3 = clear, leave as written

(For any items you rate as 1 or 2 for clarity, please write your suggestions for improvement directly on this page.)

Questionnaire Statements	Domain	Clarity
42. My division could be facing layoffs in the near future.	1 2 3 4 5 6 7	1 2 3
43. The community has a lot of resources available to deal with social problems of young people.	1 2 3 4 5 6 7	1 2 3
44. My stress level is reduced by the support of my colleagues.	1 2 3 4 5 6 7	1 2 3
45. My "upbeat, positive" approach with the students helps them to learn and causes my job to be less stressful.	1 2 3 4 5 6 7	1 2 3
46. I feel challenged in my job as a teacher.	1 2 3 4 5 6 7	1 2 3
47. The general public has negative views of the teaching profession.	1 2 3 4 5 6 7	1 2 3
48. Teachers are often "burned out" too early in the year.	1 2 3 4 5 6 7	1 2 3
49. My enthusiasm as a teacher creates enthusiasm for student learning.	1 2 3 4 5 6 7	1 2 3
50. My school division provides extra incentives for its teachers in the way of leave, sabbatical, scholarships to further one's education, payment for coursework, etc.	1 2 3 4 5 6 7	1 2 3
51. There is a fair "reward system" for our increased efforts	1 2 3 4 5 6 7	1 2 3

Directions: Circle the number of the appropriate response.

Domains

Teacher beliefs about job satisfaction:

1. Compensation	*4. School Culture*	*7. Emotional Factors*
2. Preservice Preparation	*5. External Forces*	
3. Inservice Training	*6. Motivation to Teach*	

Clarity Ratings: 1 = very unclear, delete; 2 = somewhat clear, revise; 3 = clear, leave as written

(For any items you rate as 1 or 2 for clarity, please write your suggestions for improvement directly on this page.)

Questionnaire Statements	Domain	Clarity
52. My coursework specifically dealt with assessing students' abilities.	1 2 3 4 5 6 7	1 2 3
53. My courses in college prepared me to teach the curriculum for the courses that I have been assigned.	1 2 3 4 5 6 7	1 2 3
54. The salary for teachers in my geographical area is comparable to other people with the same level of education.	1 2 3 4 5 6 7	1 2 3
55. My division included a lot of "perks" in its recruiting process such as relocation costs and coupons from local merchants.	1 2 3 4 5 6 7	1 2 3
56. I am satisfied with the way that my division spends money.	1 2 3 4 5 6 7	1 2 3
57. Having children learn from me keeps me motivated.	1 2 3 4 5 6 7	1 2 3
58. I feel that I am making a difference in the lives of children.	1 2 3 4 5 6 7	1 2 3
59. My students' poor behavior causes me to be stressed.	1 2 3 4 5 6 7	1 2 3
60. My job is too frustrating for me.	1 2 3 4 5 6 7	1 2 3
61. The parents/guardians of my students rarely return my calls.	1 2 3 4 5 6 7	1 2 3

Directions: Circle the number of the appropriate response.

Domains

Teacher beliefs about job satisfaction:

1. *Compensation*   4. *School Culture*   7. *Emotional Factors*
2. *Preservice Preparation*   5. *External Forces*
3. *Inservice Training*   6. *Motivation to Teach*

Clarity Ratings: 1 = very unclear, delete; 2 = somewhat clear, revise; 3 = clear, leave as written

(For any items you rate as 1 or 2 for clarity, please write your suggestions for improvement directly on this page.)

Questionnaire Statements	Domain	Clarity
62. My administrators cause stress in my life.	1 2 3 4 5 6 7	1 2 3
63. The fringe benefits (insurances, investment plans, etc.) provided in my division are extremely generous.	1 2 3 4 5 6 7	1 2 3
64. My district spends too much money on non-instructional positions.	1 2 3 4 5 6 7	1 2 3
65. There is a lot of growth potential in the educational field.	1 2 3 4 5 6 7	1 2 3
66. The joy of teaching young people keeps me motivated year after year.	1 2 3 4 5 6 7	1 2 3
67. The stress on my job reduces my confidence level as a teacher.	1 2 3 4 5 6 7	1 2 3
68. My administrators create an endless amount of unnecessary paperwork.	1 2 3 4 5 6 7	1 2 3
69. The students at my school are very well behaved.	1 2 3 4 5 6 7	1 2 3
70. Many businesses in my community have created partnerships with the schools.	1 2 3 4 5 6 7	1 2 3
71. The philosophy of public school education inspires me to continue to teach.	1 2 3 4 5 6 7	1 2 3

<u>Directions: Circle the number of the appropriate response.</u>

<u>Domains</u>

Teacher beliefs about job satisfaction:

1. Compensation   *4. School Culture*   *7. Emotional Factors*
2. Preservice Preparation   *5. External Forces*
3. Inservice Training   *6. Motivation to Teach*

<u>**Clarity Ratings:**</u> 1 = very unclear, delete; 2 = somewhat clear, revise; 3 = clear, leave as written

<u>(For any items you rate as 1 or 2 for clarity, please write your suggestions for improvement directly on this page.)</u>

Questionnaire Statements	Domain	Clarity
72. I have anxiety attacks when I think of going to work.	1 2 3 4 5 6 7	1 2 3
73. The administrators set the tone for a very safe environment.	1 2 3 4 5 6 7	1 2 3
74. My principal ensures that we have the necessary materials to carry out our teaching assignment.	1 2 3 4 5 6 7	1 2 3
75. I feel burned out by the end of September.	1 2 3 4 5 6 7	1 2 3
76. I love working with kids in all areas of the school setting (teaching, coaching, mentoring, etc.).	1 2 3 4 5 6 7	1 2 3
77. The administrators ensure that new teachers are not isolated and overwhelmed in their new assignment.	1 2 3 4 5 6 7	1 2 3

Note. This format was used for Round 1, and the questions for Round 1 are in Appendix D. This form was used for Rounds 2 and 3 of the validation process. Round 2 did not have the items highlighted. For Round 3, the17 items that were not validated in the previous two rounds were highlighted. The participants were asked to respond only to the highlighted items in Round 3.

Appendix F

Questions by Domain Used for Developing the Content Validation Instrument, Rounds 2 & 3.

Domain 1 – Compensation	**Domain 2 – Preservice Preparation**
1. My salary adequately meets my needs. 2. The fringe benefits (insurance, investment plans, etc.) provided in my division are extremely generous. 3. My school division provides extra incentives for its teachers in the way of leave, sabbatical, scholarships to further one's education, and payment for coursework, etc. 4. The salary for teachers in my geographical area is comparable to other people with the same level of education. 5. There is a fair "reward system" for our increased efforts. 6. My division matches my employee contribution (with parameters) for a tax-sheltered annuity. 7. My division provides a lucrative retirement package. 8. My division included a lot of "perks" in its recruiting process such as relocation costs and coupons from local merchants. 9. My division pays an extra stipend for hard-to-fill positions.	1. My courses in college prepared me to teach the curriculum for the courses that I have been assigned. 2. There were undergraduate courses during my studies that dealt specifically with the diverse student population that I encounter daily. 3. More than one semester of student teaching is needed in the schools and classrooms. 4. Classroom management was taught in my undergraduate program. 5. Part of my undergraduate program of studies included "handling conflicts." 6. My coursework specifically dealt with assessing students' abilities. 7. I feel confident after completing my requirements to become a teacher that I have the skills necessary to perform my duties. 8. Classroom discipline was addressed in very few of my classes.
Domain 3 – External Forces	**Domain 4 – School Culture**
1. Many businesses in my community have created partnerships with the schools. 2. My students' parents are very supportive when I have asked for their help. 3. The social issues that my students face were a shock for me. 4. The job availability is encouraging in my field of expertise. 5. My division could be facing layoffs in the near future. 6. I am satisfied with the way that my division spends money. 7. The parents/guardians of my students rarely return my calls. 8. The community has a lot of resources available to deal with social problems of young people. 9. The community has a lot of resources available to deal with multicultural issues. 10. My district spends too much money in non-	1. My administrators support my decisions and actions. 2. My administrators create an endless amount of unnecessary paperwork. 3. Too many duties related to my job do not involve instruction. 4. My principal is very supportive of the staff when new teaching methods are being implemented. 5. The administrators ensure that new teachers are not isolated and overwhelmed in their new assignment. 6. The organization of the special education department in my building creates too much paperwork for the general education teacher. 7. My principal ensures that we have the necessary materials to carry out our teaching assignment.

instructional positions.
11. The non-instructional positions utilize monetary resources that could be used to purchase much needed supplies for the classroom.

8. The students at my school are very well behaved.
9. The school climate created by a strong leadership team and support from the staff helps to create a positive environment in which to teach.
10. My administrators deal with difficult students very effectively.
11. Violence and major discipline problems exist in my school.
12. A large majority of the students in my building have no respect for adults; however, the administrators impose strong discipline.
13. The administrators set the tone for a very safe environment.
14. The evaluation process for teachers is implemented with clear objectives.
15. The entire staff takes part in creating the vision, mission, and objectives for the school's yearly plan.
16. The staff works as a team to ensure student achievement.
17. The school climate in my building is positive and creates a high level of staff morale.

Domain 5 – Inservice Training

1. "The Beginning Teacher" induction program held before the start of the school year helped me prepare for the classroom on the first day of school.
2. The mentoring program in my division has been a useful program as it gave me the opportunity to discuss problems with an experienced teacher.
3. As part of the professional development plan for new teachers, I am given the opportunity to observe and seek advice from experienced teachers.
4. My division has a staff development program that has enabled me to enhance my skills as a teacher.
5. The feedback from my mentor's visits to my classroom has been very useful.
6. The portfolio requirement in my division has helped me to reflect on my strengths and weaknesses.
7. The induction program for new teachers was not long enough.
8. My division stresses professional development activities as a way of increasing the skill level of teachers.

Domain 6 – Motivation to Teach

1. I went into teaching because it is such a challenging profession.
2. There is a lot of growth potential in the educational field.
3. The philosophy of public school education inspires me to continue to teach.
4. I love working with kids in all areas of the school setting (teaching, coaching, mentoring, etc.).
5. I feel challenged in my job as a teacher.
6. Having children learn from me keeps me motivated.
7. The joy of teaching young people keeps me motivated year after year.
8. The social status of the teaching profession is encouraging.
9. I feel that I am making a difference in the lives of children.
10. I have a strong commitment to the field of education.
11. The general public has negative views of the teaching profession.

Domain 7 – Emotional Factors	
1. I get stressed almost everyday on my job. 2. I feel burned out by the end of September. 3. I have anxiety attacks when I think of going to work. 4. When my attitude is positive, my day goes better. 5. My job has very few stressful days. 6. The stress on my job reduces my confidence level as a teacher. 7. My students' poor behavior causes me to be stressed. 8. My administrators cause stress in my life. 9. My stress level is reduced by the support of my colleagues. 10. Teachers are often "burned out" too early in the year. 11. My job is too frustrating for me. 12. My enthusiasm as a teacher creates enthusiasm for student learning. 13. My "upbeat, positive" approach with the students helps them to learn and causes my job to be less stressful.	

Statistics for the Three Rounds of Content Validation

Table G1

Content Validation of Survey "What Factors Affect Job Satisfaction and Teacher Retention for Beginning Teachers?"
Clarity Ratings and Classification of Items into Domains, Round 1, December, 2002 – January, 2003 (N=10). The highlighted items were validated in this round.

| | | | Domains | | | | | | | | | | | | | |
Item	Clarity rating	Expected domain	Compensation (CO)		Preservice preparation (PP)		Inservice training (IT)		School culture (SC)		External forces (EF)		Motivation to teach (MT)		Emotional factors (EM)	
			n	%	n	%	n	%	n	%	n	%	n	%	n	%
1	2.7	CO	9	90											1	10
2	2.7	CO	10	100												
3	2.9	PP			10	100										
4	2.7	PP			10	100										
5	2.8	IT			1	10	9	90								
6	2.8	PP			9	90	1	10								
7	2.8	PP			3	30	2	20					4	40	1	10
8	2.9	IT					10	100								
9	2.7	SC					2	20	6	60	1	10	1	10		
10	2.7	SC					1	10	8	80	1	10				
11	3.0	EF									10	100				
12	2.6	EF									7	70	3	30		
13	2.4	SC							8	80	1	10	1	10		

Table G1 (continued).

Content Validation of Survey "What Factors Affect Job Satisfaction and Teacher Retention for Beginning Teachers?"
Clarity Ratings and Classification of Items into Domains, Round 1, December, 2002 – January, 2003 (N=10). The highlighted items were validated in this round.

			Domains												
Item	Clarity rating	Expected domain	Compensation (CO)		Preservice preparation (PP)		Inservice training (IT)		School culture (SC)		External forces (EF)		Motivation to teach (MT)		Emotional factors (EM)	
			n	%	n	%	n	%	n	%	n	%	n	%	n	%
14	2.9	IT			1	10	4	40	3	30			2	20		
15	2.8	SC							7	70			2	20	1	10
16	2.7	SC					5	50	3	30	2	20				
17	2.6	SC							4	40	2	20			4	40
18	2.8	EF							1	10	9	90				
19	3.0	MT											5	50	5	50
20	2.8	EM													10	100
21	2.9	MT											9	90	1	10
22	2.7	EF							1	10	9	90				
23	2.7	MT											6	60	4	40
24	3.0	EM													10	100
25	3.0	EM											1	10	9	90
26	3.0	MT											10	100		

Table G1 (continued).

Content Validation of Survey "What Factors Affect Job Satisfaction and Teacher Retention for Beginning Teachers?"
Clarity Ratings and Classification of Items into Domains, Round 1, December, 2002 – January, 2003 (N=10). The highlighted items were validated in this round.

			Domains											
Item	Clarity rating	Expected domain	Compensation (CO)		Preservice preparation (PP)		Inservice training (IT)		School culture (SC)		External forces (EF)		Motivation to teach (MT)		Emotional factors (EM)	
			n	%	n	%	n	%	n	%	n	%	n	%	n	%
27	3.0	IT					8	80					2	20		
28	2.8	IT					10	100								
29	2.6	SC					2	20	6	60	1	10			1	10
30	2.9	SC							10	100						
31	2.6	SC							5	50	4	40			1	10
32	2.7	SC							9	90					1	10
33	2.9	SC							8	80	1	10	1	10		
34	2.8	CO	8	80							2	20				
35	3.0	CO	8	80	1	10					1	10				
36	2.9	PP			10	100										
37	2.8	IT			2	20	7	70			1	10				
38	2.8	PP			10	100										
39	2.9	SC							5	50	4	40			1	10

Table G1 (continued).

Content Validation of Survey "What Factors Affect Job Satisfaction and Teacher Retention for Beginning Teachers?"
Clarity Ratings and Classification of Items into Domains, Round 1, December, 2002 – January, 2003 (N=10). The highlighted items were validated in this round.

| | | | Domains | | | | | | | | | | | | | |
| | | | Compensation (CO) | | Preservice preparation (PP) | | Inservice training (IT) | | School culture (SC) | | External forces (EF) | | Motivation to teach (MT) | | Emotional factors (EM) | |
Item	Clarity rating	Expected domain	n	%	n	%	n	%	n	%	n	%	n	%	n	%
40	3.0	EF									10	100				
41	2.7	IT			2	20	8	80								
42	2.7	IT					8	80	1	10			1	10		
43	3.0	EF	1	10							8	80			1	10
44	2.9	EF							1	10	9	90				
45	2.9	EM							1	10	1	10			8	80
46	3.0	EM											1	10	9	90
47	3.0	MT											9	90	1	10
48	2.9	MT									6	60	1	10	3	30
49	3.0	EM													10	100
50	3.0	EM											5	50	5	50
51	2.7	CO	9	90							1	10				
52	2.7	CO	8	80							2	20				
53	3.0	PP			10	100										

Table G1 (continued).

Content Validation of Survey "What Factors Affect Job Satisfaction and Teacher Retention for Beginning Teachers?"
Clarity Ratings and Classification of Items into Domains, Round 1, December, 2002 – January, 2003 (N=10). The highlighted items were validated in this round.

Item	Clarity rating	Expected domain	Compensation (CO)		Preservice preparation (PP)		Inservice training (IT)		School culture (SC)		External forces (EF)		Motivation to teach (MT)		Emotional factors (EM)	
			n	%	n	%	n	%	n	%	n	%	n	%	n	%
54	2.9	PP			9	90	1	10								
55	2.8	CO	10	100												
56	2.8	CO	10	100												
57	2.8	EF							1	10	9	90				
58	3.0	MT											7	70	3	30
59	3.0	MT											8	80	2	20
60	3.0	EM													10	100
61	3.0	EM													10	100
62	2.8	EF									10	100				
63	2.9	EM													10	100
64	2.8	CO	10	100												
65	2.9	PP			10	100										
66	3.0	EF							4	40	6	60				

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Table G1 (continued).

Content Validation of Survey "What Factors Affect Job Satisfaction and Teacher Retention for Beginning Teachers?"
Clarity Ratings and Classification of Items into Domains, Round 1, December, 2002 – January, 2003 (N=10). The highlighted items were validated in this round

			Domains													
Item	Clarity rating	Expected domain	Compensation (CO)		Preservice preparation (PP)		Inservice training (IT)		School culture (SC)		External forces (EF)		Motivation to teach (MT)		Emotional factors (EM)	
			n	%	n	%	n	%	n	%	n	%	n	%	n	%
67	2.9	MT					2	20	1	10	1	10	6	60		
68	3.0	MT											7	70	3	30
69	3.0	EM													10	100
70	2.7	SC							3	30	4	40			3	30
71	2.7	SC							7	70	1	10	2	20		
72	3.0	EF									10	100				
73	3.0	MT							2	20			7	70	1	10
74	2.8	EM													10	100
75	2.9	SC							10	100						
76	2.9	SC							7	70	3	30				
77	3.0	EM													10	100
78	3.0	MT											10	100		
79	2.9	SC					3	30	7	70						

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Table G2

Content Validation of Survey "What Factors Affect Job Satisfaction and Teacher Retention for Beginning Teachers?"
Clarity Ratings and Classification of Items into Domains, Round 2, December, 2002 – January, 2003 (N=6). The highlighted items were validated in this round.

			Domains													
Item	Clarity rating	Expected domain	Compensation (CO)		Preservice preparation (PP)		Inservice training (IT)		School culture (SC)		External forces (EF)		Motivation to teach (MT)		Emotional factors (EM)	
			n	%	n	%	n	%	n	%	n	%	n	%	n	%
1	3.0	CO	6	100												
2	3.0	CO	5	83									1	17		
3	3.0	PP			6	100										
4	2.6	PP			6	100										
5	2.8	IT					5	83					1	17		
6	3.0	PP			6	100										
7	2.8	PP			5	83									1	17
8	3.0	IT					6	100								
9	2.6	SC							5	83					1	17
10	2.8	SC							5	83	1	17				
11	3.0	EF									6	100				
12	2.5	EF									2	33	3	50	1	17
13	2.8	SC							3	50	1	17			2	33

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Table G2 (continued).

Content Validation of Survey "What Factors Affect Job Satisfaction and Teacher Retention for Beginning Teachers?"
Clarity Ratings and Classification of Items into Domains, Round 2, December, 2002 – January, 2003 (N=6). The highlighted items were validated in this round.

Item	Clarity rating	Expected domain	Compensation (CO)		Preservice preparation (PP)		Inservice training (IT)		School culture (SC)		External forces (EF)		Motivation to teach (MT)		Emotional factors (EM)	
			n	%	n	%	n	%	n	%	n	%	n	%	n	%
14	3.0	IT					4	67	2	33						
15	2.8	SC							6	100						
16	2.3	SC					1	17	3	50			2	33		
17	2.6	SC							3	50			1	17	2	33
18	3.0	EF									6	100				
19	3.0	EM													6	100
20	3.0	MT											5	83	1	17
21	2.6	EF	2	33							4	67				
22	2.5	MT									2	33	3	50	1	17
23	3.0	EM													6	100
24	2.8	EM											1	17	5	83
25	3.0	MT											6	100		
26	2.8	IT					6	100								

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Table G2 (continued).

Content Validation of Survey "What Factors Affect Job Satisfaction and Teacher Retention for Beginning Teachers?"
Clarity Ratings and Classification of Items into Domains, Round 2, December, 2002 – January, 2003 (N=6). The highlighted items were validated in this round.

Item	Clarity rating	Expected domain	Compensation (CO)		Preservice preparation (PP)		Inservice training (IT)		School culture (SC)		External forces (EF)		Motivation to teach (MT)		Emotional factors (EM)	
			n	%	n	%	n	%	n	%	n	%	n	%	n	%
27	3.0	IT					5	83					1	17		
28	2.8	SC							3	50	1	17			2	33
29	2.8	SC							6	100						
30	2.8	SC							3	50	2	33			1	17
31	2.8	SC							5	83					1	17
32	2.8	SC							2	33			2	33	2	33
33	3.0	CO	6	100												
34	3.0	CO	5	83							1	17				
35	3.0	PP			6	100										
36	3.0	IT					6	100								
37	3.0	PP			6	100										
38	2.6	SC							1	17	3	50			2	33
39	3.0	EF									5	83			1	17

Table G2 (continued).

Content Validation of Survey "What Factors Affect Job Satisfaction and Teacher Retention for Beginning Teachers?"
Clarity Ratings and Classification of Items into Domains, Round 2, December, 2002 – January, 2003 (N=6). The highlighted items were validated in this round.

Item	Clarity rating	Expected domain	Compensation (CO)		Preservice preparation (PP)		Inservice training (IT)		School culture (SC)		External forces (EF)		Motivation to teach (MT)		Emotional factors (EM)	
			n	%	n	%	n	%	n	%	n	%	n	%	n	%
40	3.0	IT					5	83			1	17				
41	2.5	IT			1	17	3	50					2	33		
42	3.0	EF							1	17	3	50			2	33
43	3.0	EF									6	100				
44	3.0	EM													6	100
45	2.8	EM											1	17	5	83
46	3.0	MT											6	100		
47	2.6	MT									4	67	1	17	1	17
48	3.0	EM													6	100
49	3.0	EM											2	33	4	67
50	3.0	CO	5	83							1	17				
51	2.8	CO	5	83									1	17		
52	3.0	PP			5	83							1	17		
53	3.0	PP	1	17	5	83										

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Table G2 (continued).

Content Validation of Survey "What Factors Affect Job Satisfaction and Teacher Retention for Beginning Teachers?"
Clarity Ratings and Classification of Items into Domains, Round 2, December, 2002 – January, 2003 (N=6). The highlighted items were validated in this round.

Item	Clarity rating	Expected domain	Compensation (CO)		Preservice preparation (PP)		Inservice training (IT)		School culture (SC)		External forces (EF)		Motivation to teach (MT)		Emotional factors (EM)	
			n	%	n	%	n	%	n	%	n	%	n	%	n	%
54	3.0	CO	6	100												
55	3.0	CO							4	67			2	33		
56	3.0	EF									5	83			1	17
57	3.0	MT											6	100		
58	3.0	MT											6	100		
59	3.0	EM													6	100
60	3.0	EM													6	100
61	3.0	EF									6	100				
62	3.0	EM													6	100
63	3.0	CO	5	83							1	17				
64	3.0	EF									6	100				
65	3.0	MT											6	100		
66	3.0	MT											6	100		

Table G2 (continued).

Content Validation of Survey "What Factors Affect Job Satisfaction and Teacher Retention for Beginning Teachers?"
Clarity Ratings and Classification of Items into Domains, Round 2, December, 2002 – January, 2003 (N=6). The highlighted items were validated in this round.

Item	Clarity rating	Expected domain	Compensation (CO)		Preservice preparation (PP)		Inservice training (IT)		School culture (SC)		External forces (EF)		Motivation to teach (MT)		Emotional factors (EM)	
			n	%	n	%	n	%	n	%	n	%	n	%	n	%
67	3.0	EM													6	100
68	3.0	SC							3	50	1	17			2	33
69	3.0	SC							5	83	1	17				
70	3.0	EF									6	100				
71	3.0	MT							1	17			5	83		
72*	3.0	EM													5	100
73*	3.0	SC							4	80	1	20				
74*	3.0	SC							5	100						
75*	3.0	EM													5	100
76*	3.0	MT											5	100		
77*	3.0	SC							4	80	1	20				

Note. Items 72-77 have five respondents. One respondent did not answer 72-77.

Table G3

Content Validation of Survey "What Factors Affect Job Satisfaction and Teacher Retention for Beginning Teachers?"
Clarity Ratings and Classification of Items into Domains, Round 3, December, 2002 – January, 2003 (N=9). The highlighted items were validated in this round.

				Domains											
Item	Clarity rating	Expected domain	Compensation (CO)		Preservice preparation (PP)		Inservice training (IT)		School culture (SC)		External forces (EF)		Motivation to teach (MT)		Emotional factors (EM)	
			n	%	n	%	n	%	n	%	n	%	n	%	n	%
1																
2																
3																
4																
5																
6																
7																
8																
9																
10																
11																
12	2.9	EF	3	33							5	56	1	11		

Table G3 (continued).

Content Validation of Survey "What Factors Affect Job Satisfaction and Teacher Retention for Beginning Teachers?"
Clarity Ratings and Classification of Items into Domains, Round 3, December, 2002 – January, 2003 (N=9). The highlighted items were validated in this round.

Item	Clarity rating	Expected domain	Compensation (CO)		Preservice preparation (PP)		Inservice training (IT)		School culture (SC)		External forces (EF)		Motivation to teach (MT)		Emotional factors (EM)	
			n	%	n	%	n	%	n	%	n	%	n	%	n	%
13	2.8	SC							7	78					2	22
14	3.0	IT					9	100								
15																
16*	2.25	SC					3	33	4	44	1	11	1	11		
17	2.9	SC							8	89					1	11
18																
19																
20																
21	2.4	EF	1	11					3	33	5	56				
22	2.8	MT									4	44	5	56		
23																
24																
25																
26																

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Table G3 (continued).

Content Validation of Survey "What Factors Affect Job Satisfaction and Teacher Retention for Beginning Teachers?"
Clarity Ratings and Classification of Items into Domains, Round 3, December, 2002 – January, 2003 (N=9). The highlighted items were validated in this round.

Item	Clarity rating	Expected domain	Compensation (CO)		Preservice preparation (PP)		Inservice training (IT)		School culture (SC)		External forces (EF)		Motivation to teach (MT)		Emotional factors (EM)	
			n	%	n	%	n	%	n	%	n	%	n	%	n	%
27																
28	2.5	SC					1	11	3	33	2	22	1	11	2	22
29																
30	2.9	SC							7	78	1	11			1	11
31																
32	2.8	SC							5	56			2	22	2	22
33																
34																
35																
36																
37																
38	2.8	SC					1	11	3	33	1	11	1	11	3	33
39																
40																

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Table G3 (continued).

Content Validation of Survey "What Factors Affect Job Satisfaction and Teacher Retention for Beginning Teachers?"
Clarity Ratings and Classification of Items into Domains, Round 3, December, 2002 – January, 2003 (N=9). The highlighted items were validated in this round.

Item	Clarity rating	Expected domain	Domains												
			Compensation (CO)		Preservice preparation (PP)		Inservice training (IT)		School culture (SC)		External forces (EF)		Motivation to teach (MT)		Emotional factors (EM)	
			n	%	n	%	n	%	n	%	n	%	n	%	n	%
41	3.0	IT			1	11	5	56	1	11	1	11			1	11
42	3.0	EF									5	56	4	44		
43																
44																
45																
46																
47	3.0	MT									5	56	4	44		
48																
49	3.0	EM											5	56	4	44
50																
51																
52																
53																
54																

Table G3 (continued).

Content Validation of Survey "What Factors Affect Job Satisfaction and Teacher Retention for Beginning Teachers?"
Clarity Ratings and Classification of Items into Domains, Round 3, December, 2002 – January, 2003 (N=9). The highlighted items were validated in this round.

			Domains												
Item	Clarity rating	Expected domain	Compensation (CO)		Preservice preparation (PP)		Inservice training (IT)		School culture (SC)		External forces (EF)		Motivation to teach (MT)		Emotional factors (EM)	
			n	%	n	%	n	%	n	%	n	%	n	%	n	%
55	2.8	CO	9	100												
56																
57																
58																
59																
60																
61																
62																
63																
64																
65																
66																
67																
68	2.8	SC					2	22	4	44			1	11	2	22

Table G3 (continued).

Content Validation of Survey "What Factors Affect Job Satisfaction and Teacher Retention for Beginning Teachers?"
Clarity Ratings and Classification of Items into Domains, Round 3, December, 2002 – January, 2003 (N=9). The highlighted items were validated in this round.

| | | | Domains | | | | | | | | | | | | | |
Item	Clarity rating	Expected domain	Compensation (CO)		Preservice preparation (PP)		Inservice training (IT)		School culture (SC)		External forces (EF)		Motivation to teach (MT)		Emotional factors (EM)	
			n	%	n	%	n	%	n	%	n	%	n	%	n	%
69																
70																
71																
72																
73																
74																
75																
76																
77																

Note. Only the items not validated in previous rounds were included on the instrument for Round 3. Item #16 was the only question that didn't get a clarity rating of a 2.5 or higher in Round 2. It obtained a 2.35 in Round 3.

Appendix H

Questions by Domain After the Rotated Components Matrix

Domain	Item Number	Item
Emotional factors	23R	I have anxiety attacks when I think of going to work.
	24	The joy of teaching young people keeps me motivated year after year.
	25	I feel confident that I have the skills necessary to perform my duties.
	27	I feel that I am making a difference in the lives of children.
	29	I have a strong commitment to the field of education.
	31R	I feel burned out by the end of September.
	32R	My job is too frustrating for me.
	34R	The stress on my job reduces my confidence as a teacher.
School and community support	6	Many businesses in my community have created partnerships with the schools.
	8	My district stresses professional development as a way of increasing the skill level of teachers
	12	The community has many resources available to deal with social problems of young people.
	20	My administrators deal with difficult students very effectively.
	33	My school has a positive environment in which to teach.
Instructional support	5	As part of the professional development plan for new teachers, I am given the opportunity to observe and seek advice from experienced teachers.
	11	The mentoring program in my district has been a useful program as it gave me the opportunity to discuss problems with an experienced teacher.
	30	An induction program held before the start of the school year helped me prepare for the classroom on the first day of school.
Preparation in teaching curriculum, managing students, and assessing students	16	My coursework specifically dealt with assessing students' abilities.
	19	My courses in college prepared me to teach the curriculum for the courses that I have been assigned.
	28R	Classroom discipline was addressed in very few of my teacher education classes.

Appendix H (continued).

Questions by Domain After the Rotated Components Matrix

Domain	Item Number	Item
Collaboration	17	The entire staff takes part in creating the objectives for the school's yearly plan.
	26	Teachers in my school work as a team to ensure student achievement.
Compensation and benefits	1	My salary adequately meets my needs.
	4	The salary for teachers in my geographical area is comparable to the salaries of other people with the same level of education.
	7	My district provides a lucrative retirement package.
Motivation to teach	35	I feel challenged in my job as a teacher.
Culture shock	2R	The induction program for new teachers was not long enough.
	3R	The social issues that my students face were a shock to me.
	15R	The parent or guardians of my students rarely return my calls.

Note. R = recoded item because of negative wording. The questionnaire may be found in Appendix A.

Appendix I

Pooled Within-Groups Covariance and Correlation Coefficients Among the Predictor Variables[a]

		Emotional factors	School and community support	Instructional support	Collaboration	Compensation and benefits	Motivation to teach	Culture shock	PITC, MS, and AS*
Covariance	Emotional factors	.18	.08	.09	.08	.02	.02	.08	.08
	School and community support		.26	.16	.17	.07	-.00	.08	.04
	Instructional support			.40	.16	.06	-.01	.07	.06
	Collaboration				.43	.05	-.00	.07	.09
	Compensation and benefits					.29	-.01	.03	.04
	Motivation to teach						.35	-.01	-.03
	Culture shock							.29	.08
	PITC, MS, and AS*								.36
Correlation	Emotional factors	1.00	.37	.34	.28	.09	.07	.35	.32
	School and community support		1.00	.49	.51	.24	-.01	.30	.12
	Instructional support			1.00	.38	.17	-.03	.21	.17
	Collaboration				1.00	.14	-.01	.19	.23
	Compensation and benefits					1.00	-.03	.10	.12
	Motivation to teach						1.00	-.02	-.09
	Culture shock							1.00	.24
	PITC, MS, and AS*								1.00

[a]The covariance matrix has 302 degrees of freedom.

*PITC, MS, and AS = Preparation in Teaching Curriculum, Managing Students, and Assessing Students

Appendix J

Descriptive Statistics for Each Questionnaire Item Used in the

Final Analysis for Leavers and Stayers

Table J1

Descriptive Statistics for Each Questionnaire Item Used in the Final Analysis (Leavers)

Item	N	Min.	Max.	M	SD
1	33	1	3	1.94	.70
4	34	1	4	1.71	.80
5	34	1	4	2.76	.89
6	34	1	4	2.59	.70
7	33	1	3	2.09	.63
8	34	2	4	3.06	.65
11	34	1	4	2.29	.87
12	34	1	4	2.32	.84
16	34	1	4	2.29	.80
17	34	1	4	2.71	.84
19	34	1	4	2.71	.84
20	34	1	4	2.32	.88
24	34	1	4	2.74	.71
25	34	1	4	3.15	.78
26	34	1	4	2.68	.81
27	34	2	4	3.00	.65
29	34	1	4	2.88	.77
30	34	1	4	2.38	.99
33	34	1	4	2.74	.79
35	34	2	4	3.15	.66
2Recoded	34	1	4	2.32	.81
3Recoded	34	1	4	2.32	.81
15Recoded	33	1	4	2.42	.83
23Recoded	34	1	4	2.94	1.01
28Recoded	34	1	4	2.00	.99
31Recoded	34	1	4	2.65	.73
32Recoded	34	1	4	2.76	.86
34Recoded	34	1	4	2.41	.86

Note. Items are in Appendix A.

Table J2

Descriptive Statistics for Each Questionnaire Item Used in the Final Analysis (Stayers)

Item	N	Min.	Max.	M	SD
1	272	1	4	2.33	.76
4	270	1	4	2.11	.81
5	272	1	4	3.19	.73
6	268	1	4	2.68	.78
7	266	1	4	2.58	.71
8	269	1	4	3.18	.68
11	269	1	4	2.83	.92
12	269	1	4	2.44	.72
16	271	1	4	2.68	.72
17	270	1	4	2.66	.86
19	269	1	4	2.83	.83
20	272	1	4	2.78	.82
24	270	2	4	3.30	.60
25	271	2	4	3.41	.57
26	272	1	4	3.09	.72
27	271	2	4	3.44	.54
29	272	2	4	3.52	.52
30	267	1	4	2.49	.82
33	269	1	4	3.14	.73
35	270	1	4	3.27	.58
2Recoded	270	1	4	2.78	.79
3Recoded	269	1	4	2.59	.84
15Recoded	270	1	4	2.84	.72
23Recoded	269	1	4	3.45	.67
28Recoded	269	1	4	2.30	.91
31Recoded	271	1	4	3.16	.65
32Recoded	268	2	4	3.38	.56
34Recoded	270	1	4	2.91	.71

Note. Items are in Appendix A.

VITA

KAREN S. MYERS GIACOMETTI

ACADEMIC EXPERIENCES

Virginia Polytechnic Institute and State University, Blacksburg, VA, December, 2005, Ed. D. Educational Leadership and Policy Studies

Old Dominion University, Norfolk, VA, December, 1991, M.S. Ed. Administration, Secondary Education

Shippensburg University, Shippensburg, PA, May, 1979, B.S. Secondary Education (Business Education)

PROFESSIONAL EXPERIENCES

July, 2005 - Present – Principal, Portsmouth City Public Schools, Churchland Middle School

September, 2000 – July, 2005 – Assistant Principal, Portsmouth City Public Schools, Woodrow Wilson High School; Acting Principal, November, 2004 through January, 2005.

August, 1996 – August, 2000 – Assistant Principal, Virginia Beach City Public Schools

August, 1995 – August, 1996 – Assistant Principal, Easton Area High School, Easton, PA

July, 1991 – August, 1995 – Vocational Resource Coordinator, Portsmouth City Public Schools, Woodrow Wilson High School

August, 1979 – July, 1991 – Business Education Teacher, Portsmouth City Public Schools, Woodrow Wilson High School