# Teacher Factors That Influence Student Achievement: A Study of Third and Fiffh Grade Teachers 

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# TEACHER FACTORS THAT INFLUENCE STUDENT <br> ACHIEVEMENT: A STUDY OF THIRD AND FIFTH GRADE <br> TEACHERS 

by

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B.A. December 1999, Norfolk State University

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# ABSTRACT <br> TEACHER FACTORS THAT INFLUENCE STUDENT ACHIEVEMENT: A STUDY OF THIRD AND FIFTH GRADE TEACHERS 

Jewelle L. Harmon
Old Dominion University, 2006
Director: Dr. Elaine Justice

Student achievement is of the highest concern for the government, educational administrators and parents. Researchers have looked at several possible student factors that affect student achievement. However, very little research has been done on teacher factors and their relationship with student achievement. The current study looked at the relationships among teacher absence, teacher job satisfaction, work-family conflict family/work conflict, teachers' attitudes towards achievement measures, and their correlation with Virginia's standardized measure of student achievement; the Standards of Learning (SOLs). District differences in student achievement were also examined. Three school districts in southeastern Virginia accepted the invitation to participate. Responses from teachers who were employed by any of the three school districts and teaching third or fifth grade during the 2004-2005 school year were analyzed and included in the study. Survey data obtained from 197 third and fifth grade teachers from southeastern Virginia public elementary schools were used to assess teacher factors. The Standards of Learning were used to assess student achievement. Significant relationships were found between several teacher factor variables. Teacher absence variables were significantly correlated to Family/Work Conflict. As family's interference with work increased, illness absence increased also. TJSQ scores were significantly correlated to

SOLTAS score and Work/Family Conflict. As job satisfaction increased negative attitudes towards the SOLs and Work/Family Conflict increased as well. There were also significant positive relationships between Age, SOLTAS scores, and Work/Family Conflict. As teachers' ages increased, negative attitudes towards the SOLs and work's interference with family increased as well. School Districts differed significantly on TJSQ scores, Family/Work Conflict, and in all three subject areas of Student Achievement.

This thesis is dedicated to students in public school districts all over the United States.

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## CHAPTER I

## INTRODUCTION

Student achievement is of the highest concern for government and education agencies, school district administrators and parents. An increasing number of variables are being explored to make certain the No Child Left Behind legislation is being fulfilled. If students are high achieving, educators want to maintain that level of achievement. If students are not achieving, methods of teaching and remediation are reassessed. School districts have increased funding for student materials and technology to help boost achievement. All expectations are for students to achieve and teachers to bring about a high level of student achievement.

Researchers have looked at several student factors that affect academic achievement. It is known and widely accepted that environment, birth weight, motivation, ethnicity, gender, and socio-economic status are factors that vary by individual and are related to levels of achievement (Ballou, Sanders, \& Wright, 2004; Wasonga, Christman, \& Kilmer, 2003). However, very little research has been done on teacher factors and how they may affect student achievement. The current study looked at the relationships among teacher absence, teacher job satisfaction, work-family conflict, and teachers' attitudes towards achievement measures. Differences in student achievement across districts were also examined. Most of the factors investigated in this study are considered human resource issues. As a result, the majority of previous research studies have been

[^0]conducted in business settings. There have been numerous studies examining the relationship between factors included in this study and company productivity (Eagle, Icenogle, Maes, \& Miles, 1998; Kossek, \& Ozeki, 1998; Brayfield, \& Rothe, 1951). It may seem odd to relate the production of a certain number of sprockets or the successful completion of a number of projects to teaching; nevertheless teachers assist in the development of a product that has come under increasing scrutiny for quality control, that is, high achieving students. Relating teaching to business and exploring factors like job satisfaction, teacher absenteeism, or work/family demands becomes appropriate if the relationships can provide additional information to boost student achievement scores.

Knowledge of the influences of teacher variables may benefit school districts, teachers, and most importantly students. Understanding the factors that are related to teacher job satisfaction may aid school districts in increasing teacher retention levels. It is important to recognize that today many individuals who begin teaching do not make teaching a career (Woods \& Weaser, 2002; Shann, 1998). In fact, Woods and Weaser (2002) estimate that almost $50 \%$ of beginning teachers do not remain in the profession for more than five years. Teachers may develop a greater appreciation and dedication to a school district that is concerned about their well-being and personal concerns. Students could benefit from a school district that investigates all possible means to ensure their success. In preparation for the current study, a review of previous research on teacher absenteeism, job satisfaction, work-family conflict, and student achievement was conducted.

## Teacher Absenteeism

In most occupations, an employee absence limits the company's productivity temporarily, but the employee can "catch up" or "double" their workload when they return to work. This is not the case for teachers. Although substitute teachers fill in during a teacher's absence, regular teacher attendance is critical to student learning and success (Pitkoff, 1993). Successful completion of teachers' work demands that they be present. There is no opportunity to take work home to get ahead or catch up.

Teacher absence has become an increasing concern for school districts (Pitkoff, 2003; Green, Blasik, \& Varela-Russo, 1999; Uehara, 1999; Woods \& Montagno, 1997; Ehrenberg, Ehrenberg, Rees, \& Ehrenberg 1991). An estimated 75,000,000 studentteacher contact hours are lost annually due to teacher absenteeism (Woods et al., 1997). In order to reduce teacher absenteeism, school administrators are looking for reasons why teachers take time off. Commerce Clearing House Inc., an Illinois-based tax and business-law information provider, conducts an annual survey of unscheduled absences. In the 2002 CCH Inc. survey (Commercial Clearing House, Incorporated, 2002), results showed that the top three reasons for absence among employees were family issues, stress, and an entitlement mentality. For teachers there are legitimate reasons for absence like illness, death, and dependant care. Along with the legitimate reasons for absence, however, Zwieback (1995) found that fifteen percent of teachers called in sick at least once during the school year without an actual illness. This could be similar to the entitlement mentality that was found in the 2002 CCH , Inc absence survey. The idea of students skipping school to get extra rest or recover from a busy weekend is plausible, and this same rationale may be used by teachers.

Absence for any reason is problematic for a school district. Teacher absence is a financial loss for school district administrations. An absent teacher is paid for the day out, but the substitute who replaces that teacher must be paid also. In Southeastern Virginia, daily substitute pay ranges from $\$ 56-\$ 106$. Estimates of cost for teacher absence range from $\$ 1$ million to $\$ 6.2$ million per state per year (Woods et al., 1997, Zwieback, 1995).

Teacher absences have considerable impact on student achievement. In Pitkoff's study of seventeen Brooklyn high schools, teacher absence was negatively correlated with student grade point averages. The students suffer when a teacher is absent because an instructional lesson is interrupted. In the search for highly qualified teachers, administrators must also look for highly qualified substitutes. As stated previously, student outcomes and teacher effectiveness are directly related to teacher presence (Pitkoff, 1993).

The 2002 CCH, Inc. survey found that unscheduled absences are higher in companies and among workers with low job satisfaction. Employees with high morale generally took zero to 2 days of leave per year. Employees who reported an average level of morale reported 3 to 8 days of leave. Employees with low morale took nine or more days of leave (Commerce Clearing House, 2002). In the CCH, Inc. survey, morale included aspects similar to overall job satisfaction like feelings of worth, and satisfaction with pay.

In a study of schoolteacher profiles, Bogler (2002), found that teachers' perceptions of their profession were associated with job satisfaction. A discriminate function analysis indicated that 106 high satisfaction teachers had a significantly higher perception of their profession than those with lower satisfaction. In their study of 900
randomly selected experienced teachers, Tye and O'Brien (2002) found that status of the profession was ranked as one of the reasons teachers left or were absent. Teachers who were currently teaching, but were considering leaving had a lower opinion of the status of the profession and higher teacher absence than teachers who had a higher opinion of the status of the profession (Tye \& O'Brien, 2002).

## Job Satisfaction

Researchers have been studying the issue of job satisfaction for over 50 years (Haser \& Nasser, 2003; Bogler, 2002; Tye et al., 2002; Ma \& MacMillan, 1999; Rhinehart \& Short, 1994; Lester, 1987; Brayfield \& Rothe, 1951). There are varying definitions of job satisfaction. Ma \& MacMillan (1999) defined job satisfaction solely by an individual's attitude about work. Brayfield and Rothe (1951) separated the individual's attitude toward work from the concept of job satisfaction. Educational administration researchers Hoy and Miskel (cited in Ma \& MacMillan, 1999) stated, "in educational settings, job satisfaction is a present and past orientated affective state of like or dislike that results when an educator evaluates her or his work role" (p.39). Even teachers have difficulty agreeing on factors that affect job satisfaction. A study by Wu and Short (1996) found that teachers' perceptions of characteristics that ultimately influence teacher job satisfaction varied greatly. In part, the difficulty in defining job satisfaction is due to different feelings individuals have about the significance of work.

Researchers and supervisors have begun to assess teacher job satisfaction in order to predict job commitment, job performance, and teacher "burn out" (Ma \& MacMillan, 1999). In an effort to evaluate the teacher commitment levels of New Brunswick, New Jersey elementary school teachers, the researchers assessed workplace conditions and
teacher characteristics. Ma \& MacMillan found that workplace conditions like administrative control were significantly negatively correlated to job satisfaction. Conversely, individual characteristics such as gender and teaching experience were stronger determinants of commitment than workplace conditions. Teacher job satisfaction appears to be an important factor in teacher retention. Tye and O'Brien (2002) questioned former teachers about why they were no longer teaching. Overall dissatisfaction with the profession was the reason given, along with more specific explanations of accountability (high-stakes testing) and increased paperwork. Importantly, research demonstrates low retention of first year teachers who express low job satisfaction (Shann, 1998).

There is great variability in the current literature on the relationship between teacher job satisfaction and student achievement outcomes (Davis \& Wilson, 2000; Shann, 1998). Some researchers feel that teachers' satisfaction with their career may have strong implications for student learning (Shann, 1998). Specifically, Shann argues that a teacher's satisfaction with his or her career may influence the quality and stability of instruction given to students. His survey of ninety-seven urban middle school teachers resulted in significant mean differences in level of student achievement between teachers with high job satisfaction versus low job satisfaction. Davis \& Wilson (2002) argued that teachers who do not feel supported in their work might be less motivated to give their best effort in the classroom. Their study of 660 elementary school teachers at 57 elementary schools, however, found no significant relationship between job satisfaction and student achievement. Despite the variability in the research findings, high job satisfaction is often looked upon as a means to promote good teaching and as a result high student achievement.

## Work/Family Conflict and Family/Work Conflict

The two most significant domains in most adults' lives are their families and their jobs. Balancing the amount of time spent in the two realms is a difficult task, especially when there is not a distinct separation between the two. Each realm often has specific expectations that place additional strain on individuals trying to meet those demands. The difficulty in establishing a balance between the roles is called interrole conflict by researchers (Eagle, Icenogle, Maes, \& Miles, 1998; Kossek, \& Ozeki, 1998; Netemeyer, Boles, \& McMurrin, 1996). There are two types of role conflict: work-family conflict and family-work conflict. Work-family conflict is the strain that the demands from work put on an individual while in the family domain. Family-work conflict is the strain that the family puts on an individual while in the work domain.

Interrole conflicts can arise because of the cumulative demands of the many roles such as worker, spouse, and parent. All of these roles require an individual's dedication, focus, and compassion. The results of interrole conflict can be detrimental for employers and family members. Family members can experience levels of neglect or absence of the working family member. Employers can experience low employee retention, high employee absences, or low levels of job satisfaction among the employees. Traditional research on interrole conflict has focused on male dominated white-collar occupational settings (Eagle et al., 1998). Recently researchers have begun to investigate the conflict in other occupations and across genders (Drago, Caplan, Costanza, Brubaker, Cloud, Harris, Kashian, \& Riggs, 1999; Netemeyer et al., 1996).

According to Drago, et al. (1999) teachers are now experiencing interrole conflict due to increased duties. Drago, et al. used journal and survey procedures to investigate
the extent of interrole conflict felt by teachers. They found that teachers in the study worked an average of forty-five minutes longer per week than their contracted time. Variance in the number of additional hours worked per week was significantly dependant upon the number of dependants, age, gender, and marital status of the participant. Extended hours and paperwork that must be taken home create work-family conflict for a teacher, especially for female teachers, who must balance the roles of wife, mother, and employee (Drago et al., 1999). For the school districts, family-work conflict is more relevant. When a teacher is concerned about home or must take leave to care for a sick child or other personal need, issues with absence are of concern. A school setting does not allow time for focus to be removed from the educational needs of the students. There is no work time allotted for teachers to attend to personal matters. This can create feelings of guilt, depression and dissatisfaction with the job (Drago et al., 1999).

## Student Achievement

With the No Child Left Behind legislation (U.S. Department of Education [USDOE], 2002) in effect in the new millennium educational system, efforts are focused on student achievement. If students are high achieving then administrators are concerned about how to maintain that level of achievement. If student achievement is low, administrators are investigating causes and identifying reform strategies. The passing of the No Child Left Behind Act sent school districts into a frenzy to meet the national mandates. States began to research current standardized assessments and create new ones in search of the appropriate measure of their students.

In the early 1980's, the Virginia Department of Education (VDOE) developed guidelines for all students by determining the subject areas, amounts of information and
at what grade level the introduction should take place. In 1994, these guidelines were revised and were called the Standards of Learning (SOLs). The VDOE makes the following statement about the purpose of the SOLs on its official website (Virginia Department of Education [VDOE], n.d.):

The Standards of Learning for Virginia Public Schools describe the commonwealth's expectations for student learning and achievement in grades K12 in English, mathematics, science, history/social science, technology, the fine arts, foreign language, health and physical education, and driver education. These standards represent a broad consensus of what parents, classroom teachers, school administrators, academics, and business and community leaders believe schools should teach and students should learn. These academic standards were used to inform parents and teachers of what students were learning and to make schools accountable for teaching the content found in the Standards of Learning.

The Department also developed a schedule of assessment for the SOLs. The SOL tests are administered for the first time in third grade. These students are assessed on $S O L$ items in English, Reading and Writing, Math, and Science from Kindergarten through the current grade level. $S O L$ tests are administered again in fifth grade, eighth grade, and throughout high school. In 1998, the VDOE administered its first SOL test to Virginia students. In the Virginia Technical Report (Virginia Department of Education [VDOE], 2000) the VDOE made this statement about the purpose of $S O L$ tests: "The Virginia Department of Education (VDOE), in collaboration with hundreds of educators across the Commonwealth and with Harcourt Educational Measurement, developed a series of tests to measure student achievement against the standards." The $S O L$ tests are all multiple choice, paper and pencil tests, with the exception of the Writing tests which give the student a writing prompt and ask him or her to develop an essay based on the topic.

The focus of educational administrations on teacher accountability and student achievement has placed additional pressure on classroom teachers. Since the
development of the SOLs, parents, students, and teachers have expressed varying opinions of the new standards. Winkler (2002) called the varying opinions of teachers a "division in the ranks" (p. 219). In Winkler's study, veteran and new teachers are clearly divided. Veteran teachers disapproved of the unequivocal guidelines for subject area, timeline, and lesson content and expressed disappointment with being required to teach to the test. New teachers, in contrast, appreciated the curriculum framework and the uniformity across classrooms it creates. Age also seems to be a factor in teacher's responses to administrative input and the changes incurred by standardized achievement measures. A study of 530 elementary and secondary public school teachers in Great Britain found that teachers age 45 and older and teachers younger than 45 had significantly different views of the school administration and student achievement (Dean, 1997).

Little empirical research has explored teacher attitudes toward the SOLs and their relationship with student achievement. Research conducted by Abrams, Pedulla, \& Madaus (2003) assessed teacher attitudes about high stakes state-mandated testing. The study included Virginia as one of the few states that created assessments specifically designed for its students to accomplish the high stakes testing. The results of their study found that teachers teaching in states with high-stakes testing used several methods differing from those used by low-stakes testing teachers to prepare their students for the tests. These methods include decreasing time spent on instruction in industrial, vocational or liberal arts, and fewer field trips or class enrichment activities. High-stakes testing teachers also reported that they assessed their students more frequently and designed their classroom assessments to mimic the format of their state's assessments.

Previous research has found that overall, teachers have little trust in standardized testing (Abrams et al., 2003; Winkler, 2002; Seymour, 2001). Responses to a survey of classroom teachers revealed a lack of trust in standardized assessments and a reluctance to place much importance on standardized test results (Trepanier-Street, McNair, \& Donegan, 2001). Although research has found that teachers have little faith in standardized assessment, elementary school teachers in a study by McMillan, Myran, and Workman (2002) reported that standardized assessments had a widespread influence on classroom instruction and were responsible for changes in classroom structure and grading.

## Present Study

The current study examined the relationships among teacher absence, job satisfaction, work-family conflict, and teachers' attitudes toward the SOLs. Teacher absence, job satisfaction, work/family conflict, family/work conflict, and teachers' attitudes to the SOLs are dependant variables for analyses.

In addition to the teacher factor variables, differences in teacher factor variables and student achievement across school districts were examined. Although federal and state government provide basic operating guidelines for pubic schools, each city government and school board determine the specific regulations for their schools. Because each city government operates differently, teacher make-up is different and as a result the school districts differ. Variations in school district occur in the size of the schools and all teacher factor variables. An investigation of differences in teacher factor variables across school districts may be beneficial in identifying "best practices" or common behaviors relevant to student achievement. The hypotheses for this study were
divided into two categories: teacher effects and district effects. The research cited led to the development of the following research hypotheses:

## Hypotheses

## Teacher Effects

Hypothesis 1: There will be negative correlations between Work/Family Conflict and Teacher Job Satisfaction and Family/Work Conflict and Teacher Job Satisfaction. That is, teachers who are more satisfied with their profession will report lower levels of Family/Work and Work/Family conflict.

Hypothesis 2: There will be positive correlations between Work/Family Conflict and Total Absence and Family/Work Conflict and Total Absence. That is to say, as teachers' levels of Work/Family and Family/Work conflict increase, their absences should increase as well.

Hypothesis 3: There will be a negative correlation between SOL Teacher Attitude Scale and Teacher Job Satisfaction. Because higher scores on the SOL Attitudes Scale reflect more negative attitudes, this means that teachers who are more satisfied with their profession will have more positive attitudes toward the SOLs.

Hypothesis 4: There will be a positive correlation between SOL Teacher Attitude Scale and Total Absences. As teachers' negative attitudes towards the SOLs increase, their absences should increase as well.

Hypothesis 5: There will be negative correlation between Teacher Job Satisfaction and Total Absences. As teachers' satisfaction with their professions increases, their absences should decrease.

## District Effects

Hypothesis 6: There will be significant mean differences between school districts on Total Absence.

Hypothesis 7: There will be significant mean differences between school districts on SOL Teacher Attitude Scale.

Hypothesis 8: There will be significant mean differences between school districts on Teacher Job Satisfaction.

Hypothesis 9: There will be significant mean differences between school districts on Work/Family and Family/Work conflict.

Hypothesis 10: There will be significant mean differences between school districts on student achievement on the subject areas of English, Math, and Science.

## CHAPTER II

## METHODS

## Participants

Five public school districts in southeastern Virginia were invited to participate in this study. Three school districts accepted the invitation to participate. Surveys were collected using convenience sampling from third and fifth grade teachers employed by the school districts that agreed to participate. The researcher chose third and fifth grade because students are tested on the $S O L$ s for the first time in those grade levels. Responses from teachers who were employed by any of the three school districts and teaching third or fifth grade during the 2004-2005 school year were included in the study. Participants received no compensation for participation; the opportunity to express themselves anonymously was their only motivation to participate.

Of the 860 teachers invited to participate in the study, two hundred ten teachers completed the survey, yielding a $24 \%$ response rate. Thirteen responses were not included in the analyses because they were not teaching in the grade level or school district designated for this study. The valid N for the analyses was 197 . There were 121 responses from teachers in school district $\mathrm{A}, 58$ responses from district B , and 18 responses from district C. Participants were primarily White, married, female teachers holding a Bachelor's degrees (see Table 1). The mean age was 38 years ( $\mathrm{sd}=8.09$ ). Sixty percent of participants had at least one child and $26 \%$ of participants spent an average of twelve hours per week taking care of an elderly relative (see Table 2).

TABLE 1
Participant Demographics

| Gender |  |  |  | Age | Ethnicity |  |  |  | Education |  |  |
| :--- | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Male | Female |  | White | African <br> American | Other | BA/BS | MA/MS | Other |  |  |
| District A | $17 \%$ | $83 \%$ | 38 | $59 \%$ | $36 \%$ | $5 \%$ | $69 \%$ | $31 \%$ | $0 \%$ |  |  |
| District B | $21 \%$ | $79 \%$ | 37 | $66 \%$ | $29 \%$ | $5 \%$ | $81 \%$ | $16 \%$ | $3 \%$ |  |  |
| District C | $0 \%$ | $100 \%$ | 35 | $67 \%$ | $29 \%$ | $4 \%$ | $56 \%$ | $44 \%$ | $0 \%$ |  |  |
| Total | $16 \%$ | $84 \%$ | 38 | $61 \%$ | $33 \%$ | $6 \%$ | $72 \%$ | $27 \%$ | $1 \%$ |  |  |

TABLE 2
Participant Family Variables
$\left.\begin{array}{lcccccccc}\hline & & \text { Marital Status } & \begin{array}{c}\text { Mean } \\ \text { Number } \\ \text { of } \\ \text { Children }\end{array} & \begin{array}{c}\text { Mean } \\ \text { Cge of } \\ \text { Children }\end{array} & \begin{array}{c}\text { Residence } \\ \text { of Children }\end{array} & \begin{array}{c}\text { Mours of } \\ \text { Elderly } \\ \text { Care }\end{array} \\ \hline & \text { Married } & \text { Single } & \text { Divorced } & & & & \text { Home } & \text { Other }\end{array}\right]$

Note. Single includes widowed, Divorced includes separated.

## Measures

The Teacher Job Satisfaction Questionnaire (TJSQ) created by Paula Lester (1987) was used to assess teachers' job satisfaction (see Appendix A). The TJSQ is a sixty-six-question survey with answers on a five-point Likert-type scale; ranging from strongly disagree to strongly agree. The TJSQ assesses nine factors related to job
satisfaction. The nine factors are; supervision, colleagues, working conditions, pay, responsibility, work itself, advancement, security and recognition. Identification of the nine factors was done using a factor analysis. Reliability for each of the nine factors was established in the development of the questionnaire, Cronbach's $\alpha=.87$, (Lester, 1987). For the purposes of this study the overall job satisfaction score was used in data collection and analysis. Possible scores range from 66 to 330, with higher scores indicating higher satisfaction.

To assess conflict between work and family responsibilities the Work-Family Conflict and Family-Work Conflict scales were used. Netemeyer, Boyles, and McMurrin (1996) created the two five-item scales as an expedited means to assess general interrole conflicts between work and family. Each scale consists of five items with answers on a seven point Likert-type scale ranging from strongly disagree to strongly agree (see Appendix B). The higher the subject's score the greater the conflict between work-family and family-work. Reliability and validity for the scales were established during their development. Reliability was found to be $\alpha=.88$ and $\alpha=.86$ for the Work-Family and Family-Work scales, respectively. Construct validity was found to be $\alpha=.88$ and $\alpha=.87$ for the Work-Family and Family-Work scales, respectively. This scale was chosen over other well-known and longer scales because it was created and validated using a teacher population. Their validation sample was 182 elementary and high school teachers.

The SOL Teacher Attitude Scale (SOLTAS) was created specifically for this study. The lack of a previously established and validated scale led to the development of this scale by the researcher using information compiled from previous contact with teachers and the Virginia Department of Education website. The purpose of this survey
was to assess the general attitudes of teachers to Virginia's achievement standards. The SOL Teacher Attitude Scale consists of twenty statements that are answered using a fivepoint Likert-type scale with answers ranging from strongly disagree to strongly agree (see Appendix C). Questions are posed so that $50 \%$ of responses were reverse scored. Possible scores ranged from 20 to 100 with higher scores indicating the more negative attitudes towards the Standards of Learning. Reliability of the scale was determined from the data collected in this study. Inter-item correlations among the items was low, ranging from $\mathrm{r}=$ -.31 and the maximum $r=.30$. The overall reliability for the measure was $\alpha=.28$

The teachers also filled out a brief demographic questionnaire (see Appendix D). Teachers answered questions about their gender, age, ethnicity, highest level of completed education, grade taught, number of years taught, marital status, number and ages of children, and absence rates.

## Procedure

Applications to conduct research were sent to five school districts in southeastern Virginia three months prior to the start date of the survey participation "window". Application packets included the school district application, approved proposal, copies of human subjects approval forms, and measures used for data collection. In order to protect the anonymity of the school districts and their teachers, the names and all identifying information for each school district were not included in the study. For the purpose of distinguishing school districts for district effects, districts are labeled $\mathrm{A}, \mathrm{B}$, and C .

Three of the school districts agreed to participate. Upon written approval for participation from each school district, copies of the district approval letter were made to include in the correspondence with each school principal. Contact with each school
principal was required before individual teacher participation could be obtained. Principals were contacted by e-mail and mail packet. The e-mail included a brief overview of the study as well as the date to expect the mailing packet and a hotlink of the survey website to forward to their teachers. The mail packet included the following: a letter from the researcher providing a brief overview of the purpose of the study and a request to post flyers for the study, a copy of the approval letter from the school district, and copies of the flyer to be distributed to the teachers. Packets were mailed to the principals three weeks before the first day of the survey completion window. Flyers were distributed two weeks before the start of the survey completion window. The researcher was not allowed to personally invite teachers to participate in the research study via email.

All surveys were posted on the internet using the Inquisite Survey builder program. The surveys were posted on a password-protected website exclusive to the study. When the teacher accessed the site a notification screen appeared before the survey began. The page presented the purpose of the study, teachers were assured of anonymity, and told the amount of time estimated to complete the study. At no point was a teacher required to provide any individually identifying information. The surveys were presented in the following order: TJSQ, Family/Work Conflict and Work/Family Conflict Scales, SOL Teacher Attitude Scale, and the demographic questionnaire. At the completion of the surveys, the teachers were notified that they were entitled to see the results of the study. After the surveys were completed the teacher clicked the submit button on his/her screen and the data was saved in a secure internet database until the researcher collected it. The process took approximately twenty minutes. Data were stored in the website until the end
of the data collection "window" when it was removed, placed on a disk by the researcher and analyzed. The "window" for data collection was September 6, 2005-September 27, 2005. That was the suggested time period by school district administrators. It was believed that a window longer than three weeks would interrupt teachers' classroom instruction or other teaching duties.

## CHAPTER III

## RESULTS

Two hundred ten teachers completed the survey. Thirteen responses were excluded from the analyses because they were not teaching in the grade level or school district designated for this study. Responses from 197 third and fifth grade teachers from the three school districts were included in the analyses. Frequency distributions were run on all variables before analyses to examine the data for outliers, missing data, skew, kurtosis and other violations of ANOVA assumption. Means and standard deviations of variables are presented in Table 3. The variables Teacher Job Satisfaction, Work/Family Conflict, and Total Absence were positively skewed. The variables were transformed using the square root. This transformation corrected the skew for Total Absence and Teacher Job Satisfaction. The transformed variables were used in the analyses. The transformation did not correct the skew in the Work/Family Conflict variable so the untransformed variable was used in all analyses. In addition to the previously mentioned variables, the demographic variable teacher age was included in the correlations because it had been found to be relevant in previous standardized testing research. School district SOL pass rates and scores for the 2004-2005 school year were obtained from the VDOE website (VDOE, 2005).

Hypotheses one through five were tested using Pearson Product Moment correlation analyses to assess the strength of relationships between the variables (see Table 4). Hypotheses six through nine were tested using Univariate Analysis of Variance to assess mean group differences. The results of the correlations are presented by
hypotheses.
The hypothesis that there would be a negative relationship for teachers between Work/Family conflict and Family/Work conflict scores and TJSQ scores was tested using Pearson correlation. For the Teacher Job Satisfaction Questionnaire higher scores equaled higher satisfaction.

TABLE 3
Means and Standard Deviations of Survey Responses

|  | Total | School | School | School |
| :--- | :---: | :---: | :---: | :---: |
|  |  | District A | District B | District C |
|  |  |  |  |  |
| TJSQ Transformed | $2.28(.03)$ | $2.29(.03)$ | $2.27(.03)$ | $2.31(.02)$ |
| TJSQ | $192.86(14.84)$ | $193.64(15.17)$ | $187.60(13.43)$ | $204.50(8.33)$ |
| SOLTAS | $58.44(6.33)$ | $58.89(6.21)$ | $57.28(6.88)$ | $59.17(4.93)$ |
| Total Absence | $1.24(.07)$ | $1.24(.07)$ | $1.24(.07)$ | $1.22(.09)$ |
| Transformed |  |  |  |  |
| Total Absence | $4.70(2.97)$ | $4.76(2.86)$ | $4.79(2.85)$ | $4.00(3.99)$ |
| Work/Family | $19.55(4.59)$ | $19.40(4.48)$ | $19.53(4.01)$ | $15.06(4.94)$ |
| Conflict |  |  |  |  |
| Family/Work | $18.57(4.62)$ | $19.13(4.54)$ | $18.50(4.24)$ | $20.61(6.76)$ |
| Conflict |  |  |  |  |
| Staff Development | $.44(.78)$ | $.40(.77)$ | $.59(.86)$ | $.17(.51)$ |
| Absence |  |  |  | $35(8.57)$ |
| Illness Absence | $3.48(2.35)$ | $3.52(2.28)$ | $3.45(2.23)$ | $3.28(3.20)$ |
| Age | $38(8.09)$ | $38(8.11)$ | $37(7.88)$ | $35(1)$ |

Note. Standard Deviation in parenthesis.

TABLE 4
Correlations Between Teacher Factor Variables
TJSQ SOLTAS Total W/F F/W Illness Age

Absence Conflict Conflict Absence

| TJSQ | 1.00 | $.28^{* * *}$ | -.04 | $.19 * *$ | .03 | -.04 | .02 |
| :--- | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| SOLTAS | - | 1.00 | .01 | $.20^{* *}$ | .13 | -.05 | $.28^{*}$ |
| Total | - | - | 1.00 | -.07 | -.04 | $.85^{* *}$ | -.09 |

Absence
W/F - $\quad-\quad 1.00 \quad .31^{* * *} \quad .05 \quad .64^{* *}$

Conflict

| F/W | - | - | - | 1.00 | $.15 *$ | -.03 |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- |

Conflict

| Illness | - | - | - | - | - | 1.00 | -.03 |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- |
| Absence |  |  |  |  |  |  |  |
| Age | - | - | - | - | - | - | 1.00 |

Note. $\mathrm{N}=197$.
${ }^{* * *} \mathrm{p}<.001 .{ }^{* *} \mathrm{p}<.01 .{ }^{*} \mathrm{p}<.05$.

Teacher Job Satisfaction Questionnaire scores were significantly positively correlated to Work/Family Conflict. For these variables higher scores indicated more negative attitudes and more conflict. The correlation of TJSQ and Work/Family Conflict was significant, $r(197)=.19, \mathrm{p}<.01$. This means that as Teacher Job Satisfaction increased so did the conflict between Work and Family. The correlation of Family/Work Conflict and TJSQ score was not significant, $r(197)=.03$, n.s. This is contrary to hypothesis one.

On the Work/Family and Family/Work conflict scales a higher score indicated higher Work/Family or Family/Work conflict. Hypothesis 2 stated that there would be positive relationships between Work/Family Conflict and Total Absence and Family/Work Conflict and Total Absence. The correlation between Work/Family Conflict and Total Absence was not significant, $r(197)=-.07$, n.s. The correlation of Family/Work Conflict and Total Absence was not significant, $r(197)=-.04$, n.s. Absences were also classified as Illness Absence and Staff Development Absence. The correlation between Family/Work conflict and Illness Absence was positively significantly correlated, $r(197)=.15, \mathrm{p}<.05$. As the conflict between Family and Work increased so did Illness Absences.

The correlation between TJSQ scores and SOLTAS scores was significantly positively correlated, $r(197)=.28, \mathrm{p}<.001$. This means that as Teacher Job Satisfaction increased negative attitudes towards the SOLS also increased. This result is contradictory to hypothesis three.

On the SOLTAS higher scores equaled more negative attitudes towards the SOLs. Hypothesis 4 stated that there would be a positive relationship between SOL Teacher Attitude Scale and Total Absence. The correlation of SOLTAS scores and Absence was not significant, $r(197)=.01$, n.s.

Hypothesis 5 stated that there would be a negative relationship between Teacher Job Satisfaction and Total Absence. The correlation between TJSQ and Total Absence was not significant $r(197)=-.04$, n.s.

The correlation between age of teacher and SOLTAS score was significantly positively correlated, $r(197)=.28, \mathrm{p}<.05$. As age teachers' ages increased negative
attitudes towards the SOLs increased as well. Due to the relationships among the SOLTAS score, TJSQ score, and Age, a partial correlation was conducted controlling for age. With age controlled, the partial correlation between TJSQ and SOLTAS was no longer significant, $\mathrm{r}(197)=.18$, n.s.

A one-way ANOVA was conducted to identify differences between school districts on Total Absence. The dependant variable was Total Absence. There was no significant difference between school districts on Total Absence $F(2,194)=.87$, n.s., partial $\eta^{2}=.00$, power $=.20$. Mean Total Absence for each district is shown in Table 4. This result is contrary to what was stated in hypothesis 6 .

A one-way ANOVA was conducted to identify group differences between school districts on SOLTAS score. The variable school district included three levels: A, B, and C. The dependant variables was SOLTAS. There was no significant mean difference between school districts on $\operatorname{SOLTAS} F(2,194)=1.42$, n.s., partial $\eta^{2}=.01$, power $=.30$. Mean SOLTAS score for each district is shown in Table 3. The similarity in means between school districts conflicts is contrary to hypothesis 7 .

A one-way ANOVA was conducted to identify group differences between school districts on TJSQ score. The independent variable school district included three levels: A, B, and C. The dependant variable was TJSQ score. There was a significant mean difference for TJSQ scores among school districts $F(2,194)=10.47, p<.001$, partial $\eta^{2}=.10$, power $=.99$. Mean Teacher Job Satisfaction for each district is shown in Table 3. Teachers in school district $\mathbf{C}$ had the highest mean level of job satisfaction (204.5, $\mathrm{sd}=8.33$ ). Teachers in school district $B$ had the lowest mean level of job satisfaction (187.60, $\mathrm{sd}=13.43$ ). A post hoc Tukey analysis indicated that there were significant mean
differences among all three school districts on TJSQ scores (see Table 5). This result is consistent with what was stated in hypothesis 8 .

TABLE 5
Significant Differences of TJSQ Score Between Districts

|  | District A | District B |
| :--- | :---: | :---: |
|  | District C |  |
| District A | $.01^{*}$ | $-.02^{* *}$ |
| District B |  | $-.04^{* * *}$ |
| $* * *<001^{* *}<01^{*} \mathrm{p}<05$ |  |  |

${ }^{* * *} \mathrm{p}<.001 .{ }^{* *} \mathrm{p}<.01 .{ }^{*} \mathrm{p}<.05$.

One way ANOVAs were conducted to identify group differences between school districts on Family/Work Conflict and Work/Family Conflict. The dependant variables were Family/Work Conflict and Work/Family Conflict. There was no significant mean difference for Work/Family Conflict scores among school districts $F(2,197)=.540$, n.s., partial $\eta^{2}=.00$, power $=.14$.

Family/Work Conflict scores were significantly different across school districts $F(2,194)=6.46, p<.01$, partial $\eta^{2}=.06$, power= $=90$. Mean Family/Work Conflict for each district is shown in Table 3. Once again, teachers in school district C had the highest mean level of Family/Work Conflict (20.61, sd=6.76). Teachers in school district B had the lowest mean level of Family/Work Conflict (18.50, sd=4.24). A post hoc Tukey analyses indicated that there were significant mean differences between school districts A and C and school districts C and B on Family/Work Conflict scores (see Table 6). These results are partially consistent with what was stated in hypothesis 9 .

TABLE 6
Significant Differences in Family/Work Conflict Between Districts

|  | District A | District B | District C |
| :--- | :---: | :---: | :---: |
| District A | .63 | $4.08^{* *}$ |  |
| District B |  | $3.44^{*}$ |  |

${ }^{* *} \mathrm{p}<.01 .{ }^{*} \mathrm{p}<.05$.

A 3 (district) x 3 (subject) MANOVA was conducted to identify group differences between school districts on student achievement. The student achievement variables were created by combining pass rates for grade levels three and five for each school in each subject area to create district pass rates. The rates were obtained form the Virginia School Report Card (2005). The pass rates during the 2004/2005 academic year were compared across districts (see Table 7).

TABLE 7

| Means and Standard Deviations of School Achievement by District |  |  |  |
| :--- | :---: | :---: | :---: |
|  | English | Math | Science |
| District A | $86.11(6.35)$ | $88.18(6.19)$ | $86.36(7.11)$ |
| District B | $81.90(7.52)$ | $88.67(6.28)$ | $88.52(6.89)$ |
| District C | $77.36(5.39)$ | $79.27(5.80)$ | $79.18(5.93)$ |

Note. Standard Deviation in parenthesis.

The Box M's test indicated that homogeneity of variance-covariance was not violated, Wilke's $\lambda$ was reported. There was a significant difference among school districts on
student achievement rates $F(4,162)=8.42, p<.001$, partial $\eta^{2}=.29$, power $=1.00$ (see Table 8).

TABLE 8
District Differences of Student Achievement

| Source |  |  | Univariate |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  | English | Math | Science |
|  | Multivariate |  |  |  |  |
|  | $\lambda$ | F |  |  |  |
| School District | . 50 | 8.42 | 9.58*** | 10.38*** | 6.80** |

The follow-up univariate analyses indicated that English pass rates were significantly different across school districts $F(2,84)=9.59, p<.001$, partial $\eta^{2}=.19$, power=.98. The Math pass rates were significantly different across school districts $F(2,84)=10.38, \mathrm{p}<.001$, partial $\eta^{2}=.20$, power $=.99$. Science pass rates also differed significantly across school districts $F(2,84)=6.80, \mathrm{p}<.01$, partial $\eta^{2}=.14$, power $=.91$. Post hoc Tukey analyses indicated that there were significant mean differences (see Table 9). In the English subject area, school districts B and C differed significantly from school district A. In the subject areas of Math and Science, school district C differed significantly from school districts A and B.

TABLE 9
Significant District Effects by Subject Area


## CHAPTER IV

## DISCUSSION

The primary focus of this study was to examine relationships among teacher factors that might affect student achievement. The secondary focus was to see if there were significant differences between school districts on the teacher factors and achievement.

## Teacher Job Satisfaction

Contrary to Hypothesis 5, teacher satisfaction was not related to the total number of absences. This result is similar to findings from research by Pellicer (1984). In his longitudinal comparison of five school districts' teacher attendance data, there was no significant relationship between job satisfaction and teacher absence. Change in the teacher's level of job satisfaction did not result in any significant change in the teacher's absence. Although this result is contrary to what was stated in hypothesis five, it is promising to note for school administrators that in this sample, a change in absence is not an indication of change in job satisfaction.

## SOLTAS

The results of the correlation do not provide support for hypothesis four, as SOLTAS score is not related to teacher absence. The significant correlation between SOLTAS score and TJSQ was positive and contrary to the negative correlation stated in hypothesis three. There was an increase in negative attitudes towards the $S O L$ s as teacher job satisfaction increased. This result is consistent with other teacher research by Michaelowa (2002) that found that although teachers' attitudes to standardized testing
were consistently negative, there was not a significant relationship to job satisfaction.
Teachers' age was related to SOLTAS scores with older teachers holding more negative attitudes about the SOLs than younger teachers do. This is consistent with a number of studies about teachers' attitudes towards standardized testing (Abrams et al., 2003; Winkler, 2002; Seymour, 2001). When age was controlled, there was no longer a relationship between negative attitudes towards the SOLs and job satisfaction. Thus, age may be responsible for the relationship between SOLTAS and TJSQ. This provides further support for the idea that the age of the teacher is significant in determining the relationship between SOLTAS and TJSQ.

Though neither hypotheses three nor four were supported, the Standards of Learning deserve further investigation. The Standards of Learning are a relatively new standardized assessment; as a result, very little research has empirically explored teachers' attitudes toward them. The SOLTAS was created specifically for this survey as a measure to assess teachers' attitudes towards the $S O L s$ because there was no measure available. Going into the study the reliability of the SOLTAS was unknown and was to be established during the data analyses. The item statistics revealed low inter-item correlations. There were no significant correlations among any of the items. The overall reliability for the measure was $\alpha=.28$. This result suggests that there is more than one dimension in teachers' attitudes towards the SOLs. Teachers attitudes towards the SOLs may be based on a combination of factors not just those listed in the SOLTAS. Based on the analyses, further work is needed on the SOLTAS to establish factor structure and obtain reliability and validity data before it can be used to assess teachers' attitudes towards the SOLs.

## Work/Family and Family/Work Conflicts

As Work/Family Conflict increased job satisfaction scores also increased. The positive relationship between the two variables was not what was expected, or stated in hypothesis one. A teacher who enjoys their job may extend duties and activities past the classroom. Given this, it is not surprising that when student assignments are graded and lesson plans are written at home, as a result, work would interfere with family. However, it is still possible that teachers' job satisfaction would remain high if the job satisfaction were based on other factors like student achievement, administrative recognition, and satisfaction with the quality of work they do.

The second part of hypothesis one stated that the negative relationship between Family/Work Conflict and TJSQ would be significant. The result of this analysis was not statistically significant. These results are inconsistent with the majority of family/work conflict research (Eagle et al., 1998; Kossek et al., 1998; Netemeyer et al., 1996). A possible explanation for these results is that this study used the overall teacher job satisfaction score. It is possible that family's interference with work may be related to the some of the individual aspects of job satisfaction

## Absence

Neither Family/Work conflict nor Work/Family conflict were positively correlated to absence. Hypothesis two was not supported. These results are divergent from current research by Hammer, Neal, Newsom, Brockwood, \& Colton, (2005), which found a significant relationship between absence and family/work conflict among 234 women. Significant relationships between work/family conflict and absence were also found in studies conducted by Eagle et al., (1998); Kossek et al., (1998); and Netemeyer
et al., (1996). A possible explanation for the nonsignificant results is the uncorrected skew of the work/family conflict variable.

In this study, however, there was a significant positive correlation between illness Absence and Family/Work Conflict. This relationship was not supported by any previous research, however it is plausible that as family's interference with work increases an individuals' absence due to illness would increase. The stress of family demands can lead to an increased need to take time off to recuperate and focus on work again. The family's interference on work could manifest itself in the need for the teacher to take sick leave to attend to ill children, spouse, or parents. It is also possible that teachers participating in this study felt more comfortable providing an accurate disclosure about absences related to illness than absences for other reasons..

## District Effects

Teacher Job Satisfaction was significantly different among all three school districts. School district C had the highest mean job satisfaction. Teachers in this district also had the lowest Work/Family conflict, Total Absence, Illness Absence, Staff Development Absence, and Age. School District A had the next highest mean job satisfaction. Teachers in that district had the next lowest Work/Family Conflict, Staff Development, and Illness Absence. These results are consistent with the traditional job satisfaction research (Hardy, Woods, \& Wall, 2003; Bogler, 2002; Drago et al., 1999; Baughman, 1996).

School districts differed significantly on Family/Work Conflict. School district C had the highest level of Family/Work Conflict. This school district had a Family/Work Conflict score significantly different from the other two school districts. The high mean
of Family/Work Conflict in school district C is interesting considering that they had the lowest student achievement rates in all three subject areas. A hypothesis from this data would be that low levels of student achievement might be related to interference from family obligations causing the teachers to lose focus on the classroom.

Due to the design of the study, it was not possible to directly link differences in teacher variables and student achievement rates. However, there were significant differences between school districts on student achievement in each of the three subject areas. The MANOVA to address the differences between school districts on Student Achievement found that although all three school districts met the state benchmark, the achievement measures for School District C were lower than those of the other two districts in all three subject areas. The differences in student achievement rates are interesting considering the differing levels of teacher factors that each school district had. Overall school district C had the lowest student achievement rates between all school districts. Their combination of teacher factors included the highest job satisfaction and the highest negative attitudes towards the SOLs. School district C also had lowest mean age of teachers.

The differences between School District C and the other Districts may not be solely attributed to the differences in teacher job satisfaction or teacher's level of family/work conflict. Other district differences may include type of staff development provided, grade level structural differences, principal style and administrative requirements that must be considered. Consideration should be given to the differences in principals and their leadership styles on the effectiveness of the schools. The difference in student factors between school districts also was not determined. What is clear is that
there are significant differences between school districts on student achievement in three subject areas. The cause of those differences requires further investigation

## Limitations of the Study

This study was an initial attempt to assess teacher variables, including teachers' attitudes towards the $S O L s$, and their possible relation to student achievement. As stated previously, the creation of the SOLTAS was a first step in evaluating teachers' feelings about Virginia's student achievement measure, but further development of the SOLTAS needs to continue before it is a valid and reliable measure of teacher's attitudes.

Unfortunately, the design of this study did not allow student achievement to be linked to individual teacher variables. Identifying SOL scores for each teacher's class would have compromised the anonymity of the teachers. Another limitation was that this study relied solely on self report measures. This can produce bias when respondents may not want to admit sensitive information like their feelings about their families interfering with their work or their negative feelings about the Standards of Learning. Self report was the only means to assess teachers' level of interrole conflict and job satisfaction, but in order to get a more accurate measure of absence, personnel records could be used to tally teacher absence.

There were also limitations with the unequal sample sizes of the school districts. Convenience sampling was used due to time constraints; ideally, a stratified sample would have helped correct for the unequal sample sizes across school districts. The unequal sample sizes influenced results between school districts. Response bias from teachers referring other teachers to the survey that had opinions similar to their own may have been a problem as well.

## CHAPTER V

## CONCLUSION

This study was intended to offer administrators additional research on teacher factors that might affect students' achievement. Future research should focus on refining the SOLTAS as a measure of teacher's attitudes towards the SOLs. If replicating this study, researchers should focus on obtaining sample sizes that reflect the size ratio of each school district participating. There is also quite a bit of research on the number of years a teacher has been in the profession and their attitude toward standardized testing. Given this study's significant age correlations, future research should look at the number of years a teacher has been in the profession in relationship to the other teacher variables. There are also Work/Family and Family/Work Conflict factors that are influenced by age; dependant responsibilities and retirement issues. Additional research should also include a further investigation of gender roles and Work/Family and Family/Work conflict.

Though several significant relationships were found, this study represents only a beginning in investigating teacher factors and their relationship to student achievement. As public school administrators continue to search for innovative ways to guarantee that students meet the benchmark on student achievement measures, researchers must continue to investigate the many factors that influence student achievement.

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## APPENDIX A HARD COPY OF TEACHER JOB SATISFACTION QUESTIONNAIRE

(Lester, 1987)
Strongly Disagree, Disagree, Neither Disagree/Nor Agree, Agree, Strongly Agree

1. Teaching provides me with an opportunity to advance professionally.
2. Teacher income is adequate for normal expenses.
3. Teaching provides an opportunity to use a variety of skills.
4. Insufficient income keeps me from living the way I want to live.
5. My immediate supervisor turns one teacher against each other.
6. No one tells me that I am a good teacher.
7. The work of a teacher consists of routine activities.
8. I am not getting ahead in my current teaching position.
9. Working conditions in my school could be improved.
10. I receive recognition from my immediate supervisor.
11. I do not have the freedom to make my own decisions.
12. My immediate supervisor offers suggestions to improve my teaching.
13. Teaching provides for a secure future.
14. I receive full recognition for my successful teaching.
15. I get along well with my colleagues.
16. The administration in my school does not clearly define its policies.
17. My immediate supervisor gives me assistance when I need help.
18. Working conditions in my school are comfortable.
19. Teaching provides me with the opportunity to help my students learn.
20. I like the people with whom I work.
21. Teaching provides limited opportunity for advancement.
22. My students respect me as a teacher.
23. I am afraid of losing my teaching job.
24. My immediate supervisor does not back me up.
25. Teaching is very interesting work.
26. Working conditions in my school could not be worse.
27. Teaching discourages originality.
28. The administration in my school communicates its policies well.
29. I never feel secure in my teaching job.
30. Teaching does not provide me the chance to develop new methods.
31. My immediate supervisor treats every one equitably.
32. My colleagues stimulate me to do better work.
33. Teaching provides an opportunity for promotion.
34. I am responsible for planning my daily lessons.
35. Physical surroundings in my school are unpleasant.
36. I am well paid in proportion to my ability.
37. My colleagues are highly critical of one another.
38. I do have responsibility for my teaching.
39. My colleagues provide me with suggestions or feedback about my teaching.
40. My immediate supervisor provides assistance for improving instruction.
41. I do not get cooperation from the people I work with.
42. Teaching encourages me to be creative.
43. My immediate supervisor is not willing to listen to suggestions.
44. Teacher income is barely enough to live on.
45. I am indifferent toward teaching.
46. The work of a teacher is very pleasant.
47. I receive too many meaningless instructions from my immediate supervisor.
48. I dislike the people with whom I work.
49. I receive too little recognition.
50. Teaching provides a good opportunity for advancement.
51. My interests are similar to those of my colleagues.
52. I am not responsible for my actions.
53. My immediate supervisor makes available the material I need to do my best.
54. I have made lasting friendships among my colleagues.
55. Working conditions in my school are good.
56. My immediate supervisor makes me feel uncomfortable.
57. Teacher income is less than I deserve.
58. I try to be aware of the policies of my school.
59. When I teach a good lesson my immediate supervisor notices.
60. My immediate supervisor explains what is expected of me.
61. Teaching provides me with financial security.
62. My immediate supervisor praises good teaching.
63. I am not interested in the policies of my school.
64. I get along well with my students.
65. Pay compares with similar jobs in other school districts.
66. My colleagues seem unreasonable to me.

## APPENDIX B <br> HARD COPY OF WORK/FAMILY AND FAMILY/WORK CONFLICT SCALES

(Netemeyer \&Boles, 1996)
Very Strongly Disagree, Strongly Disagree, Disagree, Neither Disagree/Nor Agree, Agree, Strongly Agree, Very Strongly Agree

1. The demands of my work interfere with my home and family life.
2. The amount of time my job takes up makes it difficult to fulfill family responsibilities.
3. Family-related strain interferes with my ability to perform job-related duties.
4. Things I want to do at work don't get done because of the demands of my family/spouse/partner.
5. Due to work-related duties, I have to make changes to my plans for family activities.
6. The demands of my family/spouse/partner interfere with work-related activities.
7. Things I want to do at home don't get done because of the demands my job puts on me.
8. My home life interferes with my responsibilities at work such as getting to work on time, accomplishing daily tasks, and working overtime.
9. My job produces strain that makes it difficult to fulfill family duties.
10. I have to put things off at work because of demands on my time at home.

## APPENDIX C <br> HARD COPY OF SOL TEACHER ATTITUDE SCALE (SOLTAS)

Strongly Disagree, Disagree, Neither Disagree/Nor Agree Agree, Strongly Agree

1. The Standards of Learning are an accurate measure of student achievement.
2. The Standards of learning add pressure to my teaching responsibilities.
3. If my students do not pass the SOL test, I feel I have not been an effective teacher.
4. The standards of learning have decreased the amount of time I spend filling out paperwork.
5. Teacher's salaries should be linked to students' SOL pass rates.
6. So much class time is spent on preparing for the SOL test; I have very little time to cover all material.
7. The SOL tests hold schools accountable for student achievement.
8. There is added pressure for me to complete educational units in compliance with the pacing guides.
9. SOL tests have improved students' educations.
10. I feel overwhelmed by the SOL guidelines.
11. I have control over the types of lessons that are taught in my classroom.
12. The standards of learning have decreased the amount of time it takes me to write my lesson plans.
13. The SOLs are necessary to ensure all students are being taught the same thing.
14. Students should take SOL tests at the end of each grade level.
15. It is possible for all students to master the SOLs.
16. The emphasis on the Standards of Learning shows a lack of faith in my teaching abilities.
17. Too much emphasis is placed on the SOL test scores.
18. I would enjoy working in a non-SOL tested grade more than I enjoy teaching my current grade.
19. I am interested in teaching in a private school where SOL scores are not a concern.
20. I could teach more creative and interesting lessons if I were not burdened by the SOLs.

## APPENDIX D

## HARD COPY OF DEMOGRAPHIC QUESTIONS

1. Please give the name of your school district? $\qquad$
2. During the 2003-2004 school year were you employed in this school district? $\qquad$
3. If no, please give the name of the district where you were employed. $\qquad$
4. During the 2004-2005 what grade level did you teach? Kindergarten, First, Second, Third, Fourth, Fifth, Other $\qquad$
5. Please list the total number of days missed from work last school year (20042005). $\qquad$
6. Of the total number of days you missed, how many of those days were related to illness (pregnancy, hospitalization, ill relative, dependant or spousal illness, personal illness)? $\qquad$
7. Of the total number of days missed, how many of those days were for staff development reasons (conferences, grade level meetings, school improvement, content area meetings)? $\qquad$
8. What is your age? $\qquad$
9. What is your gender? Male Female
10. What is your highest completed level of education?
Bachelor's Master's PhD Other__
11. What is your Ethnicity?

Asian African-American Pacific Islander Hispanic/Latino White Other (please list) $\qquad$
12. What is your marital status

Never Married Married Separated Divorced Widowed
13. Do you have children? Yes No
14. If, yes how many? $\qquad$
15. Please list the ages of your children. $\qquad$
16. Do they live with you? Yes No
17. If no, where do they live? other parent, other relative, on their own, college, other
18. Do you take care of an elderly relative (parent, in-law)? Yes No
19. If yes, please estimate the number of hours per week you spend taking care of this relative? $\qquad$

## VITA

## JEWELLE L. HARMON

## EDUCATION

Bachelor of Arts in Psychology from Norfolk State University Norfolk, Virginia
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## PRESENTATIONS

"Sexual Harassment on Campus: A Study of White and Minority-Group Female Undergraduate Students"
Virginia Academy of Science (VAS) $81{ }^{\text {st }}$ Annual Meeting
Charlottesville, Virginia, May 2003

## HONORS

Recipient- Best Graduate Student Paper Award
$81^{\text {st }}$ Virginia Academy of Science Annual Meeting, Charlottesville, Virginia

## PROFESSIONAL EXPERIENCE

## Graduate Research Assistant

Office of Institutional Research and Assessment; Old Dominion University; Norfolk, Virginia
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Responsible for survey creation and analysis of student data utilizing computer and web-based programs

## CURRENT EXPERIENCE

Social Scientist (Research)
Department of Treasury, Internal Revenue Service, Wage and Investment
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Responsible for the creation of research methodologies, designs and statistical analyses of taxpayer data


[^0]:    Journal of Educational and Behavioral Statistics is the journal model used in this research for the placement of table titles and format of the reference section.

