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Walden University

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Laura Elizabeth Dawes Baker

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Review Committee

Dr. John Harrison, Committee Chairperson, Education Faculty

Dr. Janet Strickland, Committee Member, Education Faculty

Dr. Crissie Jameson, University Reviewer, Education Faculty

Chief Academic Officer and Provost

Sue Subocz, Ph.D.

Walden University
2020

Abstract

Relationship Between Novice Teacher Well-Being, High-Stakes Testing Stress, and
Intent to Leave

by

Laura Elizabeth Dawes Baker

MA, University of Cincinnati, 2008

BS, University of Cincinnati, 2007

Dissertation Submitted in Partial Fulfillment

of the Requirements for the Degree of

Doctor of Philosophy

Education

Walden University

November 2020

Abstract

Standardized tests are considered high stress because consequences such as loss of certification and replacement of school staff affect teacher morale and self-efficacy. The purpose of this concurrent complementarity mixed-methods study was to examine the relationship between novice teachers' high-stakes test stress, their well-being, and their intent to return to school the next year. The concepts of teacher stress and teacher well-being provided the conceptual framework for the study. Twenty-five teachers participated in a survey measuring their well-being and high-stakes test stress level. Eight of those teachers also participated in individual phone interviews. Results of the quantitative (Pearson correlations) and qualitative (coded and themed interviews) data analyses were complementary. Quantitative findings showed that as teachers' perception of school connectedness increased, so did their stress related to high-stakes testing. This unexpected finding was supported by the qualitative data that showed that the school environment, not the students' test scores, caused the stress. The findings may be used to promote positive social change by policymakers and administrators to provide better training for novice teachers, thereby increasing their retention and creating an optimal educational environment for students.

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Dedication

This dissertation is dedicated to Erin Cobb, Carrie McCormack, Tricia Branscome, Ashley Rea, Leah Young, Shelly Morton, Amy McCollum, Tricia Steiner, Maria Dieguez, and Cyndi Caruso-Hartman. You ladies are the reason I want to make education better for teachers, and I hope that I can continue to carry on at the high level you have set.

Acknowledgments

First and foremost, I want to thank my husband, TJ, for his support during this very long journey. I started my doctoral program a month after we began dating and nearly nine years, two states, six moves, one marriage, and two kids later, he is still my biggest supporter and champion. I cannot imagine how I would have done this without you.

I also want to thank my parents, Paula and Rick Dawes, for supporting me. They expected great things from me academically my entire life, and I hope I have made you proud.

I want to thank my children, Lydia and Jon, for helping renew my passion for improving the educational system when things got rough. You will never know the motivation you gave me to finish this degree just so I could try to make your schools better.

Lastly, I would like to thank my chair, Dr. John Harrison, and committee member, Dr. Janet Strickland, for all of the feedback they have given and the time they have invested in me. This was a very long process, and I would not have made it without your help.

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Chapter 1: Introduction to the Study

Teacher attrition is defined as the difference between those who stay in teaching and those who either move between schools or leave the profession (Gray & Taie, 2015). Teacher attrition is a major problem in the United States (Carver-Thomas & Darling-Hammond, 2017a). Not only does teacher attrition cost the educational system millions of dollars each year (American Association for Employment in Education, 2015), it has been shown to negatively impact student achievement (White House, 2015). Though attrition can happen at any point during a teacher's career, the movement of novice teachers' (those with 5 or fewer years of experience) in the United States is occurring at the alarming rate of 44% per year (Ingersoll et. al, 2018). Though many causes of this high turnover rate have been studied, new causes must be identified before the attrition problem worsens (Gray & Taie, 2015; Sutchter et al., 2016; Thibodeaux et al., 2015).

The current educational environment relies on high-stakes testing to determine whether students are meeting state-mandated standards, so it is important to understand the effects this testing is having on teachers (von der Embse, Pendergast, et al., 2016). The current study focused on the relationship between high-stakes testing and novice teachers' well-being as a potential factor their intent to return the next school year. Data were examined to determine whether novice teachers' perception of stress in their work environment complemented or contradicted their perceptions of the testing environment. In this chapter, the following aspects of the study are presented: (a) the background of the study, (b) the problem statement, (c) the purpose of the study, (d) the research questions and hypotheses, (e) the conceptual framework, (f) the nature of the study, (g) definitions,

(h) assumptions, (i) scope and delimitations, (j) limitations, and (k) the significance of the study.

Background

After the No Child Left Behind Act (NCLB) went into effect in 2002, mandatory standardized tests became the gauge by which a school's effectiveness was measured. NCLB stated that schools must assess students' progress in three core curriculum subjects: reading, mathematics, and science (U.S. Department of Education, 2004). With high-stakes testing, however, came repercussions for schools whose students underperformed. Under NCLB, the scores of the standardized tests were monitored by each state to determine whether a school was effective. If the test scores indicated that a school was not performing adequately, sanctions could be enforced; one of the harshest sanctions was the replacement of all staff members (U.S. Department of Education, 2009a). The most recent version of the legislation, called Every Student Succeeds Act, offers states the ability to apply for waivers that allow them an opportunity to create educational improvement plans (U.S. Department of Education, 2017). However, schools are still held accountable for students' academic success (U.S. Department of Education, n.d., 2009b, 2017; White House, 2015).

In addition to monitoring the performance of schools, standardized test scores may be used to evaluate a teacher's effectiveness or determine whether a teacher needs to be dismissed. For example, in a northwestern U.S. state, it is required that at least 50% of a teacher's evaluation be based on the academic growth of their students using multiple measures in conjunction with the academic standards and state assessments (Colorado

Department of Education, 2019). If a teacher has two consecutive evaluations that label them as ineffective, then they may be put on probation. If the students' test scores still do not improve, then the teacher can be recommended for termination by the evaluator (Colorado Department of Education, 2018). Using test scores for this purpose has fostered issues such as teachers not working with the neediest students due to the need to focus on students whose test scores are on the bubble of passing, less teacher collaboration, increased teacher stress, and cheating (Kappler Hewitt, 2015). With the pressures that come with standardized tests, in addition to the many other requirements of being a teacher, it is not surprising that teaching is viewed as a stressful profession (Gonzalez et al., 2017; Newberry & Allsop, 2017).

Recently, a teacher was fired from their position with a mid-Atlantic school district for a state-mandated test irregularity (District, 2017). The teacher, a 14-year veteran of the district and a 27-year veteran of the profession, was terminated for sending a group text to their fellow third-grade teachers five days before their test took place containing information for the math portion of the test. The text contained general language and gave no answers to test questions; however, the superintendent decided to make an example of the educator and recommended termination and suspension of their professional certification. The impact of this punishment reverberated through the state and led to the passing of HB2325, known as Rebecca's Bill, that allowed school districts to write reprimands instead of firing or revoking a teacher's license for a breach in mandated testing procedures (Mid-Atlantic's Legislative Information System, n.d).

Issues such as student discipline, lesson planning, and lack of administrative support have been studied in relation to retention of novice teachers. There has been little published research on the impact of high-stakes testing on novice teachers' stress (Prilleltensky et al., 2016) even though the educational environment has become riddled with issues relating to those tests. The current study addressed this gap and provided insight into support and encouragement that may improve the morale and retention of novice teachers.

Problem Statement

Given the pressure teachers face to get their students to perform well on high-stakes tests and to follow rigid testing procedures, research is needed on whether high-stakes testing is contributing to the attrition of those teachers already at a higher risk for leaving the profession: novices. With teacher attrition occurring at a rate of 44% in the first 5 years (Ingersoll et al., 2018), novice teachers are facing many issues that they believe could be solved by leaving their current school. Test-based accountability policies negatively impact the educational environment and increase overall teacher stress (von der Embse, Pendergast, et al., 2016). Because stress (Skaalvik & Skaalvik, 2016) and the school environment (Renshaw et al., 2015) can impact a novice teacher's decision to leave, it stands to reason that high-stakes tests are creating an atmosphere that is leading teachers toward attrition. Though research has been conducted on the effects of stress from high-stakes testing on teachers, there is little research regarding the impact on novice teachers (von der Embse, Kilgus, et al., 2015). The problem addressed in the current study was the limited knowledge regarding how high-stakes test stress impacts

the well-being of novice teachers in terms of their self-efficacy and school connectedness. Findings may be used by administrators to plan interventions to help teachers cope and avoid attrition.

Purpose of the Study

The purpose of this concurrent complementarity mixed-methods study was to investigate the relationship between novice teachers' stress level caused by high-stakes testing, their well-being as defined by their self-efficacy and feelings of school connectedness, and their intent to leave their school or the profession before the next school year in a mid-Atlantic school district. Teacher stress is defined as "the experience by a teacher of unpleasant, negative emotions, such as anger, anxiety, tension, frustration or depression, resulting from some aspect of their work as a teacher" (Kyriacou, 2001, p. 28). Teacher well-being is defined as the psychological functioning of teachers (Mankin et al., 2018). I used survey data to examine whether there was a correlation between these two variables and teachers' intention of leaving their school or the profession. I also explored whether teachers' testimony complemented the findings (see Plano Clark & Ivankova, 2016).

Research Questions and Hypotheses

RQ1 (Quantitative): How does the high-stakes test stress of teachers, as measured by the Educator Test Stress Inventory (ETSI), relate to their perceived wellbeing, as measured by the Teacher Subjective Wellbeing Questionnaire (TSWQ), and their desire to potentially leave their school or the profession?

H₀1: There is no correlation between novice teachers' stress associated with high-stakes testing as measured by the ETSI, their perceived well-being as measured by the TSWQ, and their desire to potentially leave their school or the profession.

H_a1: There is a correlation between novice teachers' stress associated with high-stakes testing as measured by the ETSI, their perceived well-being as measured by the TSWQ, and their desire to potentially leave their school or the profession.

RQ2 (Qualitative): What are novice teachers' perceptions of how the environment created by high-stakes testing has influenced their well-being?

Conceptual Framework

Two concepts were utilized to answer the research questions: teacher stress and teacher well-being. Teacher stress is described as an "experience by a teacher of unpleasant, negative emotions, such as anger, anxiety, tension, frustration or depression, resulting from some aspect of their work as a teacher" (Kyriacou, 2001, p. 28). Teacher well-being pertains to the psychological functioning of teachers (Mankin et al., 2018). Both concepts needed to be understood to investigate whether a relationship exists between a specific type of teacher stress and teacher well-being.

Because teacher stress is a broad concept, this research focused on stress caused by one specific aspect of an educator's work: high-stakes testing. von der Embse, Kilgus, et al. (2015) found that research on teacher test stress was lacking and the primary reason for this lack of research was that there were no evidenced-based assessments of teacher stress related to high-stakes testing. To fill this gap, von der Embse, Kilgus, et al. (2015) designed and tested the ETSI in hopes that not only would more research be done on the

topic, but also that the instrument would give administrators a tool for checking the environment in their schools as it relates to high-stakes testing.

Like teacher stress, teacher well-being is a broad concept. One way the concept is defined is by negative and positive indicators of well-being. Much research has been done on the negative indicators and has shown that they are detrimental to teachers (Harmsen et al., 2019), but less attention has been given to the study of positive indicators (Renshaw et al., 2015). Renshaw et al. (2015) hoped to change this by developing the TSWQ, which focuses on measuring two positive indicators of teacher well-being: school connectedness and self-efficacy. Though the TSWQ is a valid tool for measuring teacher well-being, it is still new and needs further testing.

Nature of the Study

This study had a concurrent complementarity mixed-methods design. The ETSI, TSQW, and demographic questionnaire was sent to 100 randomly selected novice teachers in eight middle schools located in one mid-Atlantic school district during the spring 2020 standardized testing session. After writing the proposal, I was informed that only 133 novice teachers were teaching in the eight middle schools. The central district office wanted to minimize the number of surveys sent to novice teachers, fearing oversaturation of surveys would diminish their effectiveness at collecting data, so only 100 survey invitations could be sent. From the survey respondents, eight individuals were selected to participate in phone interviews to gather information about the novice teachers' perceptions of the testing environment of their school and other stressors they might be experiencing as a novice teacher. Guest et al. (2013) noted that depending on

the size and homogeneity of the participants, a saturation of data is found to occur between six and 12 interviews. Due to the sample size being small and the population potentially varying in the content taught, gender, age, and other factors, eight interviews were sought. The findings from the quantitative data were compared to those from the qualitative data to determine whether they were complementary (see Plano Clark & Ivankova, 2016). Recommendations for future studies and implications for the profession were made based on the responses from the teachers.

Definitions

Burnout: The consequence of undergoing stress for long periods resulting in emotional exhaustion, depersonalization, and the lack of feeling personally accomplished (Maslach, 2003).

Educator Test Stress Inventory (ETSI): An 11-item instrument designed to measure a teacher's stress as it relates to high-stakes testing by measuring the teacher's sources and manifestations of stress (von der Embse, Kilgus, et al., 2015).

Elementary and Secondary Education Act (ESEA): The 1965 civil rights law signed by President Lyndon B. Johnson to give federal funds to schools that served low-income students and those with disabilities (U.S. Department of Education, n.d.).

Every Student Succeeds Act (ESSA): The 2015 reauthorization of the ESEA that intended to increase the rigor of academic standards while giving states more flexibility in how they create their specific accountability system (U.S. Department of Education, 2017).

High-stakes testing: A test for which there are consequences for students, teachers, administrators, and/or schools based on how the students score on the test (National Council on Measurement in Education, n.d.).

Job satisfaction: A pleasant or positive emotional state stemming from a person's job experiences (Locke, 1976).

Mixed-methods research (MMR): A “process of research when researchers integrate quantitative methods of data collection and analysis and qualitative methods of data collection and analysis” (Plano Clark & Ivankova, 2016, p. 56).

No Child Left Behind (NCLB): The 2001 reauthorization of the ESEA that required students' progress be assessed in reading and math, in Grades 3 through 8, and at least once during Grades 10 through 12. In addition, states were also required to assess students in science at least once during each of the following grade bands: (a) 3-5; (b) 6-9; and (c) 10-12 (U.S. Department of Education, 2004). The scores of these assessments were to be monitored by each state to determine whether a school is effective. If the scores indicated that the school was not effective, then various sanctions would be enforced (U.S. Department of Education, 2009a).

Novice teacher: A new teacher with 5 or fewer years of experience (Ingersoll et al., 2018).

Preservice teacher: People who are currently in an educational program to become a teacher but have not graduated and have not obtained a teaching license (McKenna, 2019).

School climate: The “quality and character of school life. School climate is based on patterns of students’, parents’, and school personnel’s experience of school life; it also reflects norms, goals, values, interpersonal relationships, teaching and learning practices, and organizational structures” (National School Climate Center, 2017, para 1).

School connectedness: “Feeling supported by and relating well to others at school” (Renshaw et al., 2015, p. 294).

Stress: A response by the body to any demand (Selye, 1978).

Stressor: Any event or factor that produces stress (Selye, 1978).

Teacher self-efficacy: A teacher’s personal “judgment of his or her capabilities to bring about desired outcomes of student engagement and learning, even among those students who may be difficult or unmotivated” (Tschannen-Moran & Woolfolk Hoy, 2001, p. 783).

Teacher stress: “The experience by a teacher of unpleasant, negative emotions, such as anger, anxiety, tension, frustration or depression, resulting from some aspect of their work as a teacher” (Kyriacou, 2001, p. 28).

Teacher Subjective Well-being Questionnaire (TSWQ): An eight-item instrument that assesses a teacher’s subjective well-being with the school connectedness and teaching efficacy subscales (Renshaw et al., 2015).

Teacher well-being: The psychological functioning of teachers (Mankin et al., 2018).

Assumptions

To proceed with the study, I made the following assumptions: (a) the participants understood the language used in the surveys and (b) the participants responded to the surveys and demographic information accurately. It was important to assume that teachers understood the language of the surveys and that they answered honestly because the collection of research data must be free of bias to ensure validity. In addition, it was important to assume that teachers understood and responded accurately because to assume otherwise would have undermined the use of the survey.

Scope and Delimitations

I sought to determine whether there was a correlation between novice teacher test stress level, novice teacher well-being, and novice teacher intention of leaving their school or the profession and whether teachers' perceptions complemented the quantitative findings. Due to limited resources and access, I delimited the study to eight schools in one school district in a mid-Atlantic state. Within those schools, data were collected from teachers who had taught for 5 years or fewer. Though there is a New Teacher Institute (NTI) that requires all new teachers to attend a monthly meeting at their home school, it contains mostly first-year teachers, which is only a small portion of novice teachers. To obtain a more inclusive selection of novice teachers, I decided not to focus on the NTI at every school in the district, but rather focus on the novice teacher populations of all middle schools.

The district has 17 elementary schools, eight middle schools, and five high schools, but for this study only the middle schools were chosen. There were several

reasons for this decision. First, I am a trained middle school teacher whose bachelor's and master's degrees were on middle childhood education and whose entire teaching career has been in Grades 5-8. This background led me to have an interest in what takes place in middle schools and fostered the development of a desire to help new teachers thrive in the middle school environment. Second, it is in the middle schools of the state explored in this study where teachers begin teaching content rather than entire grades, creating a divide between teachers who are responsible for high-stakes tested material and those who are not. At the elementary level, the only educators not involved in high-stakes tests are those who teach kindergarten to second grade and electives (music, physical education, art, etc.). All other teachers are responsible for at least two high-stakes tests each year: math and reading. In middle school, most social studies and science teachers, in addition to teachers of electives, do not have to worry about students being tested on their material. This content-based focus rather than grade-based focus could cause differences in how teachers are affected in their well-being and their stress created by administration of high-stakes tests. Third, I recruited participants from all eight middle schools to increase the number of participants and thereby increase the validity of the findings. Last, because the eight schools included different populations of students, a comparison of the responses from the eight schools could have revealed differences regarding the impact of different teaching environments.

Limitations

There were some limitations to this study. First, though I used a valid instrument for measuring stress as it relates to high-stakes testing, the stress levels of the novice

teachers could have been attributed to other factors such as dealing with parents or classroom management. Though I tried to account for these other factors by interviewing participants individually, the factors could have affected the results of the study. Another limitation was my familiarity with the study site district. Not only have I been employed by the district for the last 5 years, but I have also worked in four of the eight middle schools. Though this familiarity granted me access to the teachers, it could also have impacted the teachers' responses. Because the focus of this study was teachers with 5 or fewer years of experience from all subject areas, I had not developed relationships with all of the teachers surveyed so there was less of a chance the results being skewed.

Significance

This study may contribute to the field of education. This section addresses various ways in which the findings may impact the field. This section comprises three subsections: (a) a description of how the study will or may fill a gap in the literature, (b) a description of the study's professional application in relation to theory statements, and (c) a discussion of positive societal changes associated with application of the findings of the study.

Significance to Practice

This study contributed to the knowledge of what factors negatively impact novice teachers. With so many novice teachers leaving the field within the first 5 years of entering the profession, it is incumbent on those teachers who have successfully navigated the pathways of high-stakes testing to understand the stressors that are causing teachers to abandon the field early. Knowledge of the factors that negatively impact

novice teachers may be used to create interventions to curb the attrition rate. Support for new teachers is critical, but the support needs to be purposeful if it is expected to accomplish anything. If administrators and school boards are provided with quantitative measurements correlated with qualitative data, they can craft intervention and support strategies to retain novice teachers.

Significance to Theory

This study contributed to filling the gap regarding the relationship between novice teacher high-stakes testing stress, novice teacher well-being, and novice teacher intention to leave the profession. Test-based accountability practices have shown to have negative effects on teacher well-being (Harmsen et al., 2018). I investigated whether the stress from the tests is negatively impacting the well-being of novice teachers, which could be contributing to their attrition (see Harmsen et al., 2018; Saeki et al., 2015). With such a large percentage of novice teachers leaving the profession within the first 5 years, all elements that are contributing to their stress and their decision to leave their current school and possibly the profession must be identified (Gray & Taie, 2015; Prilleltensky et al., 2016).

Significance to Social Change

The focus of education is the students. However, teacher attrition is a serious problem that has financial (American Association for Employment in Education, 2015) and academic (U.S. Department of Education Office of Postsecondary Education, 2015) repercussions, so even though attrition appears to be a problem only affecting teachers and school districts, it also impacts the students. It is imperative that all factors that push

teachers toward leaving the profession are examined so that interventions can be put in place to curb their impact. Kini and Podolsky (2016) stated that more experienced teachers are more effective because their experience provides a level of competence based on the time spent in the classroom. If novice teachers can be kept in the profession, then can gain more experience and become more effective. Keeping novice teachers in the profession means the money that is spent on replacing them can be spent on the students, enhancing education in other ways.

Summary and Transition

In the era of standardized testing, it is important not only to monitor test scores but also to examine how the tests may be impacting teachers. Researchers have been moving in the right direction by developing surveys like the ETSI, but more work needs to be done to see which groups, if any, are impacted by high-stakes tests and in what ways. I sought to close the gap by examining the relationship between the test stress experienced by novice teachers, their well-being, and their possible intent to leave before the next school year. In the next chapter, I review the literature related to the study topic.

Chapter 2: Literature Review

The problem addressed in this study was the impact test stress has on the well-being of novice teachers. To investigate this problem, I examined the relationship between teacher stress caused by high-stakes testing, the well-being of novice teachers, and teacher intention to leave their school or the profession in a mid-Atlantic school district. I investigated whether teachers' perceptions of a testing environment increased or decreased teacher stress when administering a high-stakes test. Ingersoll et al. (2018) found that novice teacher attrition is high, and von der Embse, Sandilos, et al. (2016) observed that test stress impacts teacher job satisfaction. However, researchers had not investigated whether test stress impacts novice teacher well-being or attrition. In this chapter, I review the literature related to this gap. To describe the problem addressed in the study, I organized the chapter into the following sections: (a) literature search strategy; (b) conceptual framework; (c) literature review, which addresses the topics of novice teachers and attrition; (d) research on attrition and high-stakes testing; and (e) summary and conclusions.

Literature Search Strategy

For this literature review, various library databases and search engines were used. Though initial searches were not limited in the time frame to find seminal works, most searches limited publication dates from 2015 to the present. The Education Resources Information Center (ERIC) database was searched within the time frame. After the preliminary search, the search was limited to peer-reviewed articles only. From there, Education Source and the following databases were also searched with the same

parameters: Academic Search Complete; Business Source Complete; CINAHL Plus with Full Text; Cochrane Central Register of Controlled Trials; Cochrane Database of Systematic Reviews; Cochrane Methodology Register; Communication & Mass Media Complete; Computers & Applied Sciences Complete; eBook Collection (EBSCOhost); GreenFILE; Health and Psychosocial Instruments; Hospitality & Tourism Complete; International Security & Counter Terrorism Reference Center; LGBT Life with Full Text; Library, Information Science & Technology Abstracts; MEDLINE with Full Text; Mental Measurements Yearbook with Tests in Print; Military & Government Collection; OpenDissertations; Political Science Complete; Primary Search; PsycARTICLES; PsycBOOKS; PsycEXTRA; PsycINFO; PsycTESTS; Public Administration Abstracts; Regional Business News; Research Starters – Education; Social Work Abstracts; SocINDEX with Full Text; Teacher Reference Center; and Questia.

Various words and phrases were used during searches for relevant literature. In the beginning searches in ERIC, the following terms and phrases were used: *novice teacher*, *novice teachers*, *high-stakes testing*, and *attrition*. Then the following multicriteria searches were conducted by entering terms into the search boxes: in the first search box *novice teacher* was entered followed by the term *attrition* in the second box; in the first search box *novice teachers* was entered followed by the term *attrition* in the second box; in the first search box *novice teacher* was entered followed by the term *high-stakes testing* in the second box; in the first search box *novice teachers* was entered followed by the term *high-stakes testing* in the second box. Then, a more in-depth search was conducted using the following parameters (the ! allows for various versions of the

word to be found and the * allows for various endings of the word to be found): first search box: *high!stakes test* OR standardized test**, second search box: *teacher*, third search box: *stress OR well!being*. After that, the following criteria were used to capture all terms that might deal with the topic: in the first search box “*beginning teachers*” OR “*novice teacher*” OR “*new teacher*,” in the second search box *teacher retention OR burnout*, and the third search box *accountability*. Once complete, the same searches were conducted in the Education Source database, with the addition of selecting the following databases to be included in the search: Academic Search Complete; Business Source Complete; CINAHL Plus with Full Text; Cochrane Central Register of Controlled Trials; Cochrane Database of Systematic Reviews; Cochrane Methodology Register; Communication & Mass Media Complete; Computers & Applied Sciences Complete; eBook Collection (EBSCOhost); GreenFILE; Health and Psychosocial Instruments; Hospitality & Tourism Complete; International Security & Counter Terrorism Reference Center; LGBT Life with Full Text; Library, Information Science & Technology Abstracts; MEDLINE with Full Text; Mental Measurements Yearbook with Tests in Print; Military & Government Collection; OpenDissertations; Political Science Complete; Primary Search; PsycARTICLES; PsycBOOKS; PsycEXTRA; PsycINFO; PsycTESTS; Public Administration Abstracts; Regional Business News; Research Starters – Education, Social Work Abstracts; SocINDEX with Full Text; and Teacher Reference Center.

Next, Google Scholar was employed to find more articles. Though a researcher can search within a given time frame (which was conducted in the same way as the

library databases), Google Scholar will not let a person sort based on a peer-reviewed article. All articles found in Google Scholar were checked via the Ulrichsweb's Global Serials Directory to determine whether the article was from a peer-reviewed journal. Because there is only one search box for Google Scholar, more advanced searches could not be completed like those done in the library databases. To account for this, I used the following key words: *novice teacher, novices teachers, new teacher, new teachers, attrition, teacher attrition, novice teacher attrition, new teacher attrition, high-stakes testing, standardized testing, novice teachers and high-stakes testing, new teachers and high-stakes testing, novice teachers and standardized testing, new teachers and standardized testing, novice teacher retention, new teacher retention, novice teacher burnout, new teacher burnout, novice teacher stress, new teacher stress, novice teacher well-being, new teacher well-being, novice teachers and high-stakes testing and well-being, and new teachers and standardized tests and well-being.*

Google was also used in this study to find data about individual school districts and the national government. For information about the individual school districts discussed, the name of the district was used as the search term. To find the rankings of states by pay, *rankings of the state by how much they pay their teachers* was used. To find information on government policies, I used *No Child Left Behind, Elementary and Secondary Education Act*, and *Every Student Succeeds Act* for quick access to the pages on these topics in the Department of Education's website. Google was not used often in this research, but it was very useful in filling in background information.

Conceptual Framework

Stress can result from any aspect of teachers' work and can have many repercussions. Therefore, the current study was conducted to evaluate the effects of certain types of stress on teachers. Because there are many types of stress a teacher can experience and ways that said stress can impact a teacher, the focus of this study was the effect of stress from high-stakes testing on a teacher's well-being. Because teacher stress and well-being are concepts, the following sections explore them.

Teacher Stress

With the daily expectations a teachers face such as student behavior monitoring, assessments, grading and lesson planning, and other responsibilities such as meetings for students with disabilities, required extracurricular duties, curriculum mapping, and professional development, it stands to reason that teaching is a highly stressful profession (Newberry & Allsop, 2017; Skaalvik & Skaalvik, 2015). Teacher stress has been defined as the experience of negative emotions stemming from some aspect of their work (Kyriacou, 2001). The stress felt by teachers can have many consequences. Harmsen et al. (2018) found that teacher stress can be detrimental to a teacher's well-being. In addition, teacher stress can also negatively impact their students' academic performance (Klusmann et al., 2016) or hinder their ability to cope with stress personally (Oberle & Schonert-Reichl, 2016).

One of the biggest issues with stress of teachers is its link to teacher attrition. Many researchers have found that stress leads to teacher attrition (Skaalvik & Skaalvik, 2016). Teacher attrition impacts the educational world in many ways. Understanding all

aspects of stress which affect teacher retention is vitally important. Since such a high percentage of novice teachers succumb to attrition, it is important to understand how stress is impacting these teachers. Fitchett et al. (2018) found that approximately 25% of first-year teachers are at risk for stress, meaning the earlier stress is detected in teachers, the early interventions can be put into place to try and stop it from leading to attrition.

High-Stakes Testing Stress

Thibodeaux et al. (2015) have found that three of the top issues that trouble teachers the most about their profession are: paperwork, student discipline, and state-mandates. Teachers felt that policymakers demanded a lot from them and felt that what was being required was not reasonable (Thibodeaux et al., 2015). However, the impact of the tests was not just felt by those who are responsible for teaching their curriculum. Teachers of non-tested grades felt indirect stress because of what the test stress does to the school's environment (Saeki, Segool, et al., 2018).

In the era of high-stakes testing, teachers are under growing pressure to improve student test scores (Saeki, Pendergast, et al., 2015). Thibodeaux et al.'s (2015) found that over half of the teachers surveyed believed that administrators placed more pressure on teachers of tested subjects than on teachers of non-tested subjects. However, teachers of non-tested subjects are not safe from pressures of their administration. Teachers of non-tested subjects have been pressured into incorporating tested materials into their curriculums, creating more work for them. By being pressured from the administration into incorporating subject material into their lesson plans which they are not certified to teach, these teachers definitely suffer from a high-stakes testing stress environment

(Shaw, 2016). In response to the pressure, some teachers have cultivated a mindset that the students' performance on the high-stakes tests is all that matters (Welsh & Williams, 2019).

The mindset created from the pressure to perform on state-mandated tests has led to cheating in some school districts. For example, in 2011 the Georgia Bureau of Investigations (GBI) launched an investigation into allegations that Atlanta Public Schools were cheating on the state tests. This investigation would go on to uncover one of the largest school cheating scandals in U.S. history. All told, the GBI identified 178 teachers and principals possibly involved in manipulating students' tests (Saultz et al., 2016). In, 2013 the former superintendent and 30 teachers were indicted and, in 2015, eleven were convicted for their part in the cheating scandal. In addition to actively cheating, those involved in the scandal created an environment of fear that deterred those who may who may have wanted to speak up from doing so by threatening poor evaluations or termination (Brumback, 2013; Saultz et al., 2016). This scandal is a prime example of what the pressures of high-stakes testing can do to people who are responsible for student test scores and to those who are not. This is the type of environment high-stakes testing is creating and what the nations new teachers are walking into. Understanding the impact such environmental pressures are having on our novice teachers and their decisions to leave their school or the teaching profession is vital in strengthening our rising educators.

Locke (1976) described job satisfaction as a pleasant or positive emotional state stemming from a person's job experiences and test stress has been linked to negatively

impacting it in teachers (von der Embse, Sandilos, et al., 2016). With both teachers of tested and non-tested subjects experiencing stress from mandates, it is not surprising that researchers have found that there is no difference in the job satisfaction of the groups (Thibodeaux et al., 2015). von der Embse, Sandilos, et al. (2016) found that even though many state-tests are done during springtime, those who had higher test stress in the fall had lower job satisfaction. This means though the tests take place during an isolated period, teachers are dealing with the stress from it for the entire school year which is impacting their job satisfaction. These findings are in line with that of Thibodeaux et al. (2015) which found that most teachers equated the pressures of state-mandated testing with burnout, which is the consequence of undergoing stress for long periods resulting in emotional exhaustion, depersonalization, and the lack of feeling personally accomplished (Maslach, 2003).

High-stakes testing accountability policies have a strong relationship with high teacher test stress and burnout (Ryan et al, 2017). This finding implies that high-stakes testing accountability policies are strongly linked to stress and burnout symptoms in teachers who stay in the profession, in addition to those who leave. Additionally, Ryan et al. (2017) found that high-stakes accountability policies have influenced teachers' decisions to migrate to other schools and to leave the profession altogether. Part of the reason for this phenomenon is the fact that high-stakes accountability policies raise test stress and burnout overall, leading to teacher attrition.

To agitate an already tense situation, federally mandated tests have been determined to be an appropriate way to evaluate a teacher's effectiveness, even though

the system for doing so has been deemed flawed (von der Embse, Schultz, et al., 2015). According to Baker et al. (2013), 20 states and the District of Columbia have tied students state-test scores to their teachers' evaluations. With high-stakes accountability policies impacting teacher test stress, burnout, and attrition already, it makes sense that the added pressures associated with using student scores to evaluate teachers' effectiveness would influence their decision to leave the profession (Ryan et al., 2017). Unfortunately, before deciding to leave, placing substantial emphasis on test scores in evaluations has been shown to lead to negative behaviors in teachers. When teachers feel pressured to raise their students' test scores, they resort to poor instructional practices and threat-based messages, which end up negatively impacting students' performance (Putwain & von der Embse, 2018; Zoch, 2017). Given that the original purpose of standardized tests was to see where students have deficiencies, creating an environment that can negatively impact their performance seems counterproductive (Croft et al., 2016).

With high-stakes testing impacting the teachers in such dynamic ways, it is important that to learn all the ways they are affecting teachers' well-being and attrition rates. Research shows that stress negatively impacts teachers' well-being, and if test stress in teachers is causing so many issues, then researchers need to see how it impacts their well-being (Harmsen et al., 2016). If the goal is to strengthen the teaching profession so that our students walk away with the best education possible, then those factors that are hurting our teachers and their effectiveness as educators needs to be understood. The next section focuses on what teacher well-being is and "the factors that

contribute to the creation of positive teacher well-being. This next section explains what factors are detrimental to the maintenance of teacher well-being.

Teacher Well-Being

Teacher well-being pertains to the psychological functioning of teachers (Mankin et al., 2018). If a teacher's well-being encounters barriers such as an unclean classroom, inadequate supplies, mice in the ceiling, then they may turn to inadequate teaching methods, which could negatively impact student achievement (Saeki, Pendergast, et al., 2015). Since student achievement is the end goal of teaching, having teachers in a psychological state that would hinder that is problematic. In addition to the school benefits of teacher well-being, de Biagi et al. (2017) found it is also a significant predictor of the variables associated with quality-of-life. Though negative well-being indicators have been well explored and proven to be detrimental to a teacher (Harmsen et al., 2016), less has been done to study positive well-being indicators (Renshaw et al., 2015). Renshaw et al. (2015) hoped to change this by developing the Teacher Subjective Well-being Questionnaire (TSWQ) which focused on measuring two positive indicators of well-being: school connectedness and self-efficacy. Since the TSQW was used to measure teacher well-being in this study, a better understanding of the components it is constructed from is needed. In this section, school connectedness and teacher self-efficacy are discussed as they relate to teacher well-being.

School Connectedness

School connectedness is comprised of one's feelings that they are supported by and can relate to others at their school (Renshaw et al., 2015). Moore et al. (2018)

identify school connectedness as a component of school climate. The National School Climate Center (NCSCC) (2007) defines the school climate as “the quality and character of school life. School climate is based on patterns of students’, parents’ and school personnel’s experience of school life; it also reflects norms, goals, values, interpersonal relationships, teaching and learning practices, and organizational structures” (para 1). For a teacher, school connectedness relies on three main interpersonal relationships: student-teacher, teacher-teacher, and teacher-administrator (Renshaw et al., 2015). With interpersonal relationships being so important to teachers, it is understandable why belonging is a fundamental indicator of school connectedness (Mankin et al., 2018).

The relationships teachers have with those in their schools can have many positive impacts on the teachers themselves. The first impact is that those teachers who have more positive relationships with students, teachers, and administrators tend to experience less burnout (O’Brennan et al., 2017). Burnout has been linked to, among other things, teacher attrition (Lavian, 2012) and student motivation (Shen et al., 2015). However, Santoro (2013) warned of confusing burnout with demoralization. Though both concepts deal with the impact of stressors on a person, burnout is caused by psychological factors (ex. a teacher’s personal mental health) and demoralization deals with social factors (ex. administrators). Considering these facts, positive relationships in schools must be cultivated to minimize demoralization in teachers so that attrition is kept low and student motivation high.

Another positive impact of relationships associated with school connectedness is that when teachers receive help, advice, and backing from and when they feels accepted

by colleagues, it positively influences the teacher's self-efficacy and their job satisfaction (Aldridge & Fraser, 2016). The concept of teacher self-efficacy is explored in the next section. Here, job satisfaction is examined. Job satisfaction is defined as a pleasant or positive emotional state stemming from a person's job experiences (Locke, 1976) and, according to Arslan (2017), school connectedness directly predicts job satisfaction. This idea aligns with De Simone et al. (2016) findings that teachers' perceptions of their school leaders impacted their job satisfaction. Job satisfaction is negatively correlated with teacher burnout (Capri & Guler, 2018). To curb the negative impact school leaders can have on their teachers' job satisfaction, they need to "accept proposals and contributions from everyone, using circular, clear, and comprehensive communication, enhancing different competencies and recognizing the results achieved" (De Simone et al., 2016, p. 74).

Arslan (2017) found that school connectedness and well-being had a large and significant association. If administrators want to ensure that teachers' well-being is high to avoid issues like burnout (O'Brennan et al., 2017), attrition (Lavian, 2012), and low student achievement (Makin et al., 2018), then the focus must be on the relationships teachers are experiencing in school. School leaders need to pay attention to not only how they interact with teachers, but also how teachers interact with each other and the students. They also need to intervene if they see that any of these relationships are negatively impacting teachers. Being proactive and implementing interventions will be important in ensuring school connectedness for teachers.

Teacher Self-Efficacy

Tschannen-Moran and Woolfolk Hoy (2001) define teacher self-efficacy as a teacher's personal "judgment of their capabilities to bring about desired outcomes of student engagement and learning, even among those students who may be difficult or unmotivated" (p. 783). A teacher's self-efficacy is important because a high sense of self-efficacy positively impacts students' academic success (Kim & Seo, 2018). It stands to reason then, if a teacher has a higher self-efficacy, then their students will perform better on standardized tests because they were able to achieve higher academic success during the school year. However, Gonzalez et al. (2017) found that there is no difference in the self-efficacy of teachers of tested and non-tested subjects. This means that even though teacher self-efficacy could impact standardized testing, being a teacher of a standardized tested subject does not appear to have an impact on teacher self-efficacy.

Even though teachers' self-efficacy has shown to correlate with students' academic achievement scores (Gulistan et al., 2017), student behavior can impact teacher self-efficacy. Egido Gálvez et al. (2018) found that though various European countries held different self-efficacy beliefs, they did share some commonalities in how they perceived their self-efficacy. One such commonality is their perception of their ability to discipline their classroom. This is in line with an American study conducted by Domitrovich et al. (2016) which found that by having teachers implement an intervention that was created to improve student behavior, a teacher's self-efficacy increased. The findings of Domitrovich et al. (2016) study show that even if the intervention did not

change the students' behavior, it did change the teacher's perception of how well they could handle the students' behavior, increasing self-efficacy.

Students, however, are not the only group who can impact a teacher's self-efficacy, fellow teachers (Aldridge & Fraser, 2016) can also impact a teacher's self-efficacy. According to Aldridge and Fraser (2016), when teachers can work with other teachers and share ideas and practices with them, it positively impacts their self-efficacy. In addition, Brown, A. and Collins (2015) found that pre-service teachers' self-efficacy is impacted by their mentor teacher. This means that teachers can have an impact on each other's self-efficacy whether they are working collaboratively or guiding one another through the difficulties of being a teacher, and, because of this, teachers need to be cognizant of how their behavior could be impacting their peers.

In addition to students and other teachers, administrators also impact teacher self-efficacy (Mehdinezhad & Mansouri, 2016). It is the leadership behaviors of the administrators that influence the teachers' self-efficacy, specifically those behaviors associated with transformational leadership. According to Burns (1978), transformational leadership refers to "one who raises the followers' level of consciousness about the importance and value of desired outcomes and the methods of reaching those outcomes" (p. 141). The two transformational leadership behaviors that specifically impact teacher self-efficacy are idealized influence (a leader's charisma) and intellectual stimulation (a leader's ability to make their subordinates more creative and innovative) (Mehdinezhad & Mansouri, 2016). In addition to these behaviors, Aldridge and Fraser (2016) found that how approachable and supportive an administrator is can also impact a teacher's self-

efficacy. This means that even if an administrator is trying to change the environment of their school through new policies or programs, they need to be aware that behavior as a leader will impact the entire school.

Though many outside influences can impact a teacher's self-efficacy, it, in turn, can have an impact on other factors. For instance, teacher self-efficacy, in conjunction with leadership, can predict a school's collective efficacy (Cansoy & Parlar, 2018). Like teacher self-efficacy, collective self-efficacy impacts student achievement (Goddard et al., 2017). According to Goddard et al. (2015), when an administrator encourages teacher collaboration to improve instruction this can not only lead to an increase in collective efficacy but also better student achievement. When teachers have a higher individual self-efficacy and have an administrator who encourages collaboration, then those teachers will work together to make a better school environment for each other and the students.

In addition, a teacher's self-efficacy can mediate stress leading to burnout (Yu et al., 2015). This is important because, as said earlier, teaching is a very stressful job (Newberry & Allsop, 2017) and that stress can lead to teacher attrition (Skaalvik & Skaalvik, 2016), it is important to understand and utilize any aspect that can combat a teacher's stress level. According to Gonzalez et al. (2017), job-related stress is higher in teachers of tested subjects in high school. Considering this, it must be understood what relationship, if any, exists between teacher test stress and teacher-self-efficacy, because if one does exist then interventions need to be put in place to curb the impact.

A high level of well-being is linked to a teacher's healthy and successful performance at work and with teacher attrition being a major issue in the U.S., it is

something administrators should be focused on (Arslan, 2017). Since this study used the TSWQ to evaluate the teachers' subjective well-being, then it is important to understand the constructs that were used to create it: school connectedness and self-efficacy. Though there is overlap in the two constructs, they are distinctly different in that school connectedness centers on the group, where teacher self-efficacy centers on the person alone. The end goal of this research is to see how teacher test stress impacts these factors jointly and separately.

Literature Review

To understand why this research is important to the field, an in-depth review of the literature on novice teachers and attrition must be completed. Understanding why novice teachers are a vulnerable group and why attrition is a major problem for the field is vital to understanding why this gap in the research needs to be filled. In addition, to these two constructs, it is important to understand how previous research has been conducted so that the best practices can be applied to this research. In this section, the literature on attrition, novice teachers, and research on attrition and high-stakes testing are explored.

Attrition

Attrition in education refers to three groups of people: stayers, movers, and leavers (Gray & Taie, 2015). Movers and leavers are comprised of two subgroups: voluntary and involuntary. These subgroups are important to keep in mind when talking about attrition as data may include both groups of people, though the context it is used in may imply it only refers to the voluntary group. For this study, both subgroups are

considered a part of the statistics given for novice teachers because whether voluntary or involuntary, novice teachers are not getting what they need to be successful to remain in their positions.

Though attrition is a problem in the United States, it is not an issue in every country (Clandinin et al., 2015). In fact, the U.S. attrition rate is about double that of other countries (Sutcher et al., 2016). Overall, the U.S. has an annual attrition rate of roughly 8% with retirement accounting for only one-third of those people. Even though having such a high attrition rate compared to other countries is a reason to worry, the rates for novice teachers are even more concerning. Novice teachers have an attrition rate of about 12% in their first year and over 44% by year 5 (Ingersoll et al., 2018). What these statistics show is that there is a serious problem in our educational system that is causing mass attrition of our teachers.

Though the rates of U.S. teacher attrition are alarming, they do not impact every region of the US the same. The South's overall attrition rate, the highest in the nation, is over 6% higher than the North, the lowest in the nation (Carver-Thomas & Darling-Hammond, 2017a). This discrepancy stems from the working conditions set by the two regions. With smaller class sizes, higher pay, and a dedication to investing in education at a greater rate, the North has created an environment that entices teachers to stay at their current school (Carver-Thomas & Darling-Hammond, 2017a). As stated in earlier sections, teachers who stay and get more experience are more effective than those with less experience, giving the students in the North a chance at a better education (Kini & Podolsky, 2016).

Even within the regions, however, there are discrepancies between individual schools themselves. Those schools that serve large numbers of low income and/or minority students have a higher turnover rate (Geiger & Pivovarova, 2018), 50% to 70% higher (Carver-Thomas & Darling-Hammond, 2017a) than their counterparts. Even within these schools with higher turnover rates, those who leave are not evenly distributed among the content areas. Those who teach mathematics, science, or special education, all areas that experience shortages nationally, have an attrition rate that is 70% to 90% higher than their counterparts in white, affluent schools (Carver-Thomas & Darling-Hammond, 2017a). This means that these schools are staffed with teachers who have taught for a fewer number of years and, therefore, do not have the same training and experience as a veteran teachers, putting these students at a disadvantage in relationship to their peers (Carver-Thomas & Darling-Hammond, 2017a).

In the state this study geographically occurred, the attrition rate of teachers is two percentage points higher than the national average at 10.2% (Mid-Atlantic Advisory Committee on Teacher Shortages, 2017). In 19 of its 133 school districts, the attrition rate is over 30%. In the area known as the Northern Neck, where the subject of this study is located, the state is experiencing one of the most severe shortages (Mid-Atlantic Advisory Committee on Teacher Shortages, 2017). Though in the specific district being examined itself had a decrease in attrition from 14.3% in fiscal year 2016 to 11.4% in fiscal year 2017, the attrition rate is still higher than both the national and state averages.

With attrition rates so high in various areas across the U.S., the question should be raised as why so many teachers are leaving the field of education. Though some of the

attrition can be attributed to those veterans who are retiring, only 13% of those who left their current position said that retirement was the main reason for their exit. This means that for the largest part of the population exiting education, retirement was either a secondary factor or not a factor at all in their decision to leave their current position. Of those who left, 55% reported dissatisfaction as the main reason for their exit, with 25% of that population citing accountability pressures associated with high-stakes testing as their main reason for being dissatisfied (Sutcher et al., 2016). This means that at nearly 14% slightly more teachers cited the pressures associated with high-stakes testing as the main reason they left their current position than they did retirement. This statistic shows that even though the U.S. loses teachers annually due to unavoidable reasons like retirement, it is losing teachers at a greater rate to circumstances that the schools and their administrators could help curb. With attrition accounting for 90% of the annual teacher demand, which leads to tens of thousands of teachers being hired nationally each year (Carver-Thomas & Darling-Hammond, 2017a). Thibodeaux et al. (2015) found that principals play a critical role in the retention of their teachers. This means principals need to be aware of the reasons teachers are unsatisfied with their current position so they can help remediate the problem before teachers leave.

Though issues stemming from high-stakes testing account for one-quarter of the teachers who cite dissatisfaction as the main reason for their departure (Sutcher et al., 2016), it is not the only reason administrators need to be aware of. According to Thibodeaux et al. (2015), the three main reasons teachers gave for leaving their current position were student discipline, administrative support, and teacher workload. Though

these are three separate topics, it could be argued that student discipline could fall under the umbrella of administrative support. Kapa and Gimbert (2018) found that when administrators more consistently enforced school rules, teacher satisfaction was positively impacted. This is because when the rules were enforced with fidelity, it would most often reduce instances of students misbehaving, which decreased teacher anxiety and stress, which then led to an increase in teacher satisfaction. Podolsky et al. (2017) suggested that one way to help retain teachers is to improve their working conditions by improving the amount of support given by the administrators. To do this, districts should invest in professional development that will help their principals expand their leadership skills. In addition to professional development, 96% of principals who participated in a coaching program that focused on a type of mentoring expressed that the experience made them more effective and 95% of them said it aided in increasing student achievement (Wise & Cavazos, 2017). What this shows is that to help teachers, their professional growth cannot be the sole focus, but a focus must also be turned to the growth of those who lead them.

The third main reason teachers gave as to why they left their current position, workload, needs to be addressed by administrators as well (Thibodeaux et al., 2015). The teachers' workload can be broken down into two categories: teaching and non-teaching (Van Droogenbroeck et al., 2014). The teaching portion of the workload consists of things like class preparation and the actual time to teach. It can be argued that every teacher who enters the profession expects they will have to partake in the teaching portion. The non-teaching workload, however, may not be as expected to people entering

the field. Carver-Thomas & Darling-Hammond (2017b) referred to these non-teaching aspects as interferences to teaching because having to fill out paperwork or attend administrative meetings interferes with people's time to complete their teaching workload. Lawrence et al. (2019) found that both types of workload were positively related to emotional exhaustion in teachers. However, this effect was mitigated by the relationships teachers had with students, colleagues, and administrators. This shows that although the workload can be overwhelming and may need to be better expressed during teacher preparation courses, positive relationships within the school can help teachers deal with the workload.

One reason for teacher attrition that does not stem from the school level, but rather the district level, is teacher pay. According to Gray and Taie (2015), there is a nearly 10% difference in the attrition rate of those new teachers who were paid \$40,000 or more and those who were paid less than \$40,000. Though various publications and organizations like to rank states based on their median salaries for teachers, these rankings do not paint a true picture of how the individual districts compensate their teachers. For instance, Frohlich's (2018) ranked the state of this study as 11th in the country for teacher median income at \$63,287. However, an investigation of individual districts shows how drastically salaries can vary depending on the school district. In the district this research was conducted in, a first-year teacher with only a bachelor's degree will make a little over \$42,000 (District, 2018) whereas their counterparts 30 miles away in another district will start out making nearly \$5,500 more (Prince William County Public Schools (PWCPS), 2018a). This difference expands to more than \$30,000 by the

time the same teachers reach 30 years of experience in their respective districts (District, 2018; PWCPS, 2018b). These gaps show that some districts may be more financially equipped to attract and retain teachers who are more likely to leave due to compensation concerns.

Based on how the U.S. funds schools, through local taxes, there will be discrepancies between districts as some will have more money coming in because of businesses or higher property values. It could be argued then, that the districts seated in lower-income areas are never going to have the means to compete financially with those districts located in higher-income areas. Though the finances of a district cannot be helped due to the current method with which schools are funded, it needs to be noted that teachers leaving can also cost districts a considerable amount of money. According to the Learning Policy Institute (2017), the recruitment of one new teacher can cost a district up to \$20,000. If at least 6-10 new teachers are being hired to replace vacancies each year, a district is spending \$120,000 to \$200,000 each year minimum on just recruitment. Multiply this by the number of districts in the U.S. and the U.S. is spending between 1.6 and 2.7 billion dollars a year on just recruiting new teachers, money that could be funneled to other areas, like teacher pay (Learning Policy Institute, 2017). However, salary alone is not causing the mass attrition of teachers and there are other factors districts can work on to help with teachers leaving.

The discussion of how attrition is impacting the nation's school districts financially makes one wonder what other impacts attrition has. Arguably the most severe impact of teacher attrition is that which the students experience directly. Carver-Thomas

and Darling-Hammond (2017a) state that teacher attrition negatively impacts student achievement, especially students from low-performing or high-minority population schools. One explanation for this is that more experienced teachers are more effective (Kini & Podolsky, 2016). As stated in the section on Novice Teachers, veteran teachers tend to have a higher self-efficacy than novice teachers in areas like classroom management, which causes differences in the achievement of veteran and novice teachers (Yerli Usul & Yerli, 2017). It is not reasonable to expect novice teachers to be as effective as their counterparts because they simply have not had the same experiences. However, even veteran teachers who move between schools or districts are not as effective as those who stay in one location (Atteberry et al., 2017). Though veterans do have experience handling classroom management, creating lessons, and understand that there will be non-teaching duties associated with their job, they must learn all of the nuances of their new school and student population before they can be as effective as they were in their prior location.

To try and curb the attrition rate in the state of this study and its effects, the Mid-Atlantic Advisory Committee on Teacher Shortages (2017) has suggested that the state consider various initiatives like enhancing teacher programs and providing financial incentives. In addition, the committee also recognizes that school climate is vital to the retention of teachers and needs to be addressed. Due to teachers leaving because they are dissatisfied, and many of those dissatisfied leaving because of the pressures of standardized testing, the committee also proposes the adoption of an accreditation system that takes more than achievement test scores into consideration when assessing a school's

ability to teach children. The thought is that by reducing testing pressures for teachers, a more positive school climate would emerge, encouraging teachers to stay in their school (Mid-Atlantic Advisory Committee on Teacher Shortages, 2017).

The causes and, therefore, the effects of attrition can never fully be avoided because people will continue to retire and leave for other reasons such as relocation. This means districts will always have to spend money on recruiting and replacing teachers and will to deal with drops in student achievement until teachers get more experience in their new position. However, there are a large portion of teachers who are not leaving their schools for those reasons and a complete understanding of why teachers are leaving must be obtained. Interventions to stop attrition of teachers will only stop, or slow down to a reasonable pace, once specific reasons for this attrition are identified and addressed.

Novice Teachers

Research has shown that during the first five years of a teacher's career a teacher has a high chance of leaving the school they are at or leaving the profession altogether. Ingersoll et al. (2018) found that more than 44% of novice teachers leave their placement for either a new school or a new career. With such a high turnover rate it is not surprising that the beginning of a teacher's career has been referred to as the "survival stage" where new teachers concentrate on, among other things, classroom management issues, instruction, and content knowledge (Zhukova, 2018). Concentrating on these aspects makes sense as many novice teachers do not feel adequately prepared by their education programs to teach (McCarthy et al., 2016). Miles and Knipe (2018) found that novice teachers struggle to understand how to properly implement the complex portions of

teaching practices as they transition from being the student to the teacher. Zhang and Zeller (2016) found that there is an association between the quality of a novice teacher's preparation and their intention of remaining in the profession. Considering this, it can be argued that a novice teacher becomes a risk of leaving the field before they ever get their classroom.

If administrators are interviewing candidates who unknowingly have one foot out the door during their first-ever interview, how can they help the novices they hire make it past the 5-year mark. It could be argued that administrators should only hire from those colleges that are highly selective of their candidates, for example, Ivy League schools, to ensure that they are hiring the best. However, Kelly and Northrop (2015) found that graduates of highly selective colleges have an 85% greater likelihood of leaving the profession in the first three years of teaching, which means administrators need to look beyond the college's name to the program itself. For instance, candidates who come from a school that has a residency as part of their teacher preparation program have a greater retention rate than those who do not (Guha et al., 2017). Residency programs, however, can be quite expensive and are not typical of United States colleges of education. Candidates who participated in year-long student teaching were better at handling classroom management issues and engaging students than those who were in a semester-long placement (Colson et al., 2017). Examining a novice teacher's program of study could help administrators hire candidates who are more likely than others to stay.

However, with almost every state experiencing some sort of teacher shortage since at least the 1990-1991 school year, administrators may not be able to become picky

about the type of preparation a potential teacher received (U.S. Department of Education Office of Postsecondary Education, 2016). Rather than rely on just what the colleges did for candidates, administrators need to be proactive and implement programs that will help curb novice teachers' desire to leave. Bland et al. (2016) discussed that to retain novice teachers, administrators need to put in place mentoring programs, with trained mentors, that give novice teachers structure and guidance, while still giving them autonomy and a voice in the school. This means the environment the novice teacher enters can have as big of an impact as the preparation they had on their intentions to remain in the field. Ronfeldt and McQueen (2017) found that the more induction supports novice teachers were given, the greater their likelihood they would remain in their school. Administrators, therefore, could overcome inadequate preparation and create an environment that allows novice teachers to perfect their craft while supporting them.

Though administrators can create a supportive environment for novice teachers, it does not mean that is what is done. Many novice teachers feel isolated (Prilleltensky et al., 2016) and the support felt by these teachers or the lack thereof, is associated with their job satisfaction and burnout, which are both associated with attrition (Kelly & Northrop, 2015). Zhukova (2018) found that during their first year of teaching, novice teachers were preoccupied with trying to be accepted by students, the students' parents, colleagues, and school administrators. If there was a supportive environment in place, novice teachers would not have to worry about being accepted by their peers and administrators as they would already feel that they were. The energy spent with this preoccupation could be put back where it belongs, doing what is best for students.

Doing what is best for the students, however, has many challenges and creates issues for novice teachers. Zhukova (2018) found that novice teachers struggle with classroom management, discipline, adapting the curriculum to meet the needs of individual students, time management, motivating students, and managing resources. Of these, classroom management is considered a major issue for novice teachers. Sezer (2017) found that though classroom management issues could have positive impacts on novice teachers, many experience feelings of stress or anxiety and considered leaving their current school over the issue. Yerli Usul and Yerli (2017) found that novice and veteran teachers share similar perceptions of their classroom management beliefs and practices but differ on their self-efficacy on the subject. It is this difference in self-efficacy that leads to differences between the achievement of novice and veteran teachers. To help novice teachers gain a more positive self-efficacy on their classroom management abilities they need to be supported by administrators and veteran teachers, so the achievement gap can be closed.

To help novice teachers transition to the classroom, some schools have created Professional Learning Communities (PLCs) (Prilleltensky et al., 2016). PLCs are formal groups set up by the school district that allow teachers to work together and support one another. In addition to, or in conjunction with, the PLCs, many districts assign novice teachers formal mentors to help them with their transition. Mentors, who are veteran teachers, help novice teachers with items like planning curriculum and classroom management, things that will help them improve their craft (Martin et al., 2016). However, informal support can also be beneficial to novice teachers. According to Martin

et al. (2016) informal support from colleagues positively impacted novice teachers' views on their daily administrative duties not interfering with their teaching. These colleagues help novice teachers, whether because they are easily accessible or they have a common bond, deal with issues that arise daily and need to be dealt with before their next formal meeting with their mentor. Administrators should encourage both kinds of relationships as they will help prevent isolation. Teachers feeling isolated is not new and it is not reserved for novice teachers (Newberry & Allsop, 2017), and since isolation can exasperate stress (Prilleltensky et al., 2016), allowing all teachers to collaborate will help stave off attrition.

As discussed in a previous section in this chapter, stress is a major issue for teachers that can lead them to the decision to leave their current school or the field altogether (Skaalvik & Skaalvik, 2016). To alleviate veteran teacher stress or encourage them to stay, many schools will assign the disadvantaged students to novice teachers, as they tend to be the students with the greatest needs and are more likely to be behavioral issues (Grissom et al., 2015). However, according to Fitchett et al. (2018), teachers who experience more stress are less confident in their ability to plan lessons or handle classroom management. If novice teachers are already coming in at a disadvantage of handling classroom management and lesson planning (Zhukova, 2018), then assigning them students whose needs may exasperate their areas of weakness, is not setting the novice or the students up for success.

In the era of high-stakes testing, where the scores of disadvantaged students are monitored closely, how they are taught can be regimented through methods, such as

scripted curricula. Though these types of curricula can be beneficial to novice teachers as they give structure and direction to their teaching, they do not cover the needs of all learners in a classroom (Endacott et al., 2015) and they do not always mesh with what novice teachers were taught were best practices (Broemmel & Swaggerty, 2017). When presented with this situation, novice teachers must learn to balance what is required by their schools with what they believed to be best practices (Zhukova, 2018). However, Broemmel and Swaggerty (2017) found that even though novice teachers did find ways to make learning more meaningful when given a one-size-fits-all curriculum, they were unhappy when their students' scores were not as high as those teachers who implemented the curriculum with fidelity. This conflict of best practices and the desired results can cause novice teachers to feel like they have been given an "impossible task" and make them question their future in the field (Vetter et al., 2016, p. 321).

Unfortunately, many states only look at what subgroups a child falls into and his subsequent test scores, and not the child, perpetuating biases and limiting these children (Flores et al., 2015). This mindset that only the test scores matter puts pressure on teachers, especially novice teachers who are concerned with their reputation and performance (Croft et al., 2016). Novice teachers begin to define who they are as teachers not just through their interactions with students, but also through the school environment established by the administrators (Vetter et al., 2016). If teaching is treated as nothing more than a means to increase high-stakes test scores, then not only will true learning suffer, but so will the novice teacher (Broemmel & Swaggerty, 2017).

In general, novice teachers, struggle to control or regulate their well-being. Zhukova (2018) found that novice teachers continuously complained of being stressed, frustrated, vulnerable, and professionally isolated and struggled to cope with the demands of being a teacher. Though teacher stress, isolation, and the other feelings are not new for teachers (see previous sections on teacher stress and school connectedness), nor are they limited to novices, to try and stop the mass exodus of novice teachers from schools and the field itself, it must be understood how their well-being is being attacked by the various aspects of the profession so appropriate interventions can be put into place. This study provides documentation to fill the gap in the literature about the relationship between the stress of high-stakes tests and the well-being of novice teachers. This study also defines, quantitatively and qualitatively how a teacher's perceptions of well-being are complemented by self-efficacy.

Research on Attrition and High-Stakes Testing

Though the struggles of novice teachers, the consequences of attrition, and the negative effects of accountability policies are not new, little research has been done on the convergence of the three ideas. Even less has been done on the relationship between these three ideas and the positive aspects of a teacher's well-being: school connectedness and teacher self-efficacy. Researchers like Clandinin et al. (2015) have interviewed novice teachers to try and determine reasons for potential attrition and how to retain those teachers. However, to fully understand the impact high-stakes testing is having on novice teachers, an in-depth look at what research has been completed on these subjects so that a foundation for the present study method can be built. The following section looks at

research that has evaluated all three ideas and those that only explored two of them. In addition, this section discusses the rationale for the chosen method for the present study and the instruments that were selected to assist in the data collection.

Again, the research on novice teachers' attrition due to high-stakes testing is very limited. The most relevant studies come from Brown, C. (2015) and Ryan et al. (2017). Brown, C. (2015), while conducting a case study with two novice teachers, found that the pressure of high-stakes testing could lead first-year teachers to consider leaving the field. However, this only focused on two teachers and both were only in their first year of teaching. Ryan et al. (2017), on the other hand, conducted surveys on over 1,800 teachers and looked at the relationship between test-based accountability policy at the state level, teacher test stress, teacher burnout, and teacher turnover intentions, while controlling for years of experience. Though both studies make a connection between test stress and attrition in novice teachers, they do not look at the impact the stress has on a teacher's well-being.

Other researchers have held focus groups with preservice and novice teachers but focused solely on one type of teacher. Hagaman and Casey (2018) interviewed preservice and novice teachers of special education, along with their administrators, to find out what causes new special education teachers to leave the profession. In their findings, items like high-stakes testing are found to be an area of concern, but only among the preservice teachers and the administrators, not among the novice teachers themselves. In this study, the novice teachers rank other items such as stress, lack of recognition and support, lack of training, caseloads, and paperwork to be the major reasons new special

education teachers leave, but not educational mandates, which include high-stakes testing. However, with stress being the top issue mentioned by all three groups and educational mandates being mentioned by two, it does raise the question as to whether there is a link between the two concepts.

In other studies, different methods were employed to see how high-stakes mandates impacted the way the novice teacher taught. In Costigan (2018) preservice teachers and novice teachers' course writings were analyzed and then the participants were interviewed about their experiences in the school and classroom. Though the purpose of the study was not to set out to find the impact of state mandates on novice teachers, that was one of the findings. Similarly, Manuel and Carter (2016) found how state-mandated tests impact how novice teachers teach, but their method involved distributing a questionnaire to their participants. In both cases, the participants were limited to just those who taught English and their intention to leave the field based on the impact of the high-stakes test was never established.

Other researchers have analyzed resignation letters that were made public. Dunn (2018) found that a common reason for leaving in the resignation letters was high-stakes testing. However, these letters did not just focus on novice teachers, only a small portion were from this demographic, which makes generalizations difficult. Though analysis of this type of data would be beneficial in finding exact causes of why teachers leave, they are not always available, nor do they always go into detail of why a person left.

Regarding a teacher's well-being, connections have been made between the teacher's self-efficacy and school connectedness and a teacher's desire to leave. For

instance, O'Brennan et al. (2017), found that if a teacher has more self-efficacy and has a positive school connectedness, then they tend to feel less burnout. As mentioned earlier, burnout has been linked to teacher attrition (Lavian, 2012) and being able to lower it will lower the risk of a teacher leaving. However, this study surveyed paraprofessionals and support staff in addition to teachers, both novice and veteran teachers, at the high school level (O'Brennan et al., 2017). In addition, the study did not attempt to look at any connections between the two concepts and teacher test stress.

Similarly, Aldridge and Fraser (2016) found that the relationships and support a teacher find in the school environment can influence their self-efficacy and job satisfaction. As stated earlier, job satisfaction is negatively correlated with teacher burnout (Capri & Guler, 2018). Though the study surveyed many teachers (781), they included both veteran and novice teachers. In addition, this study did not explore any relationship between the school environment, teacher-efficacy, and standardized testing.

What all these studies show is that there is interest in finding out what connections there are between the issues a teacher faces and how those issues impact her. What they do not do, specifically, is investigate how novice teachers' well-being is impacted by high-stakes test stress. To fill this gap in the research, this study looked to combine previous study methods and apply them to the desired group, novice teachers. This original plan entailed utilizing a mixed-methods, concurrent triangulation design by gathering data through surveys (demographic, ETSI, and TSWQ) and then selecting eight randomly chosen individuals to participate in phone interviews after the surveys had been completed. The reason for this convergent mixed methods design was due to the

weaknesses in the studies. Strict survey studies do not allow the investigator to see if factors not on the survey may be hindering the results. Likewise, pure qualitative studies either focus on too small a number of people to be able to generalize the findings to the greater population or they do not give the researcher the ability to compare what a person says to anything else to see if the person is being truly forthcoming in the interviews. Creswell and Creswell (2018) stated that the mixing of the two types of data (quantitative and qualitative) allows the researcher to build on the strengths of both types of data to gain a better understanding of the topic being researched and that is what this researcher is theorized would happen by using a mixed-methods model.

To properly conduct the purposed study, more needs to be known about the surveys being utilized. The first survey is the Educator Test Stress Inventory (ETSI). The ETSI was created by Dr. Nathaniel von der Embse and was copyrighted in 2014. According to von der Embse, Kilgus et al. (2015), the “ETSI was developed to periodically (within and across school years) evaluate teacher stress related to testing and the corresponding influence of educational policies (e.g., changes in teacher tenure, use of standardized testing for merit pay) across time” (p. 11). This brief instrument (only 11 questions), contains two subscales: Sources of Stress (ETSI-S) and the Manifestations of Stress (ETSI-M). Though a relatively new instrument, the ETSI’s validity has been researched. von der Embse, Kilgus et al. (2015) found that the ETSI had a convergent validity with the State-Trait Anxiety Inventory (STAI) and concurrent validity between their subscales. In addition, internal validity was found for the ETSI, $\alpha = .89$, and its subscales ETSI-S, $\alpha = .82$, and ETSI-M, $\alpha = .85$.

The other survey is utilized in this study is the Teacher Subjective Well-being Questionnaire (TSWQ). The TSWQ was developed and validated by Renshaw et al. (2015). This survey was designed to be a brief self-reported measure of a teacher's positive psychological functioning at work and was designed to be used in conjunction with other measures (e.g. observations or other surveys) to gain a better understanding of what impacts a teacher's ability to function positively at school. Though created with three subscales, the School Connectedness Scale (SCS), The Joy of Teaching Scale (JT), and the Teaching Efficacy Scale (TES), and 24 questions (eight from each subscale), the TSWQ went through a rigorous process to get the instrument down to a short, yet valid measure. In the end, the JT scale was dropped altogether because it was not statistically viable and the four with the highest face validity were selected from the remaining subscales to keep the tool brief. The instrument was checked for construct, structural, and external validity. The TSWQ was found to have a strong convergent and divergent validity and the subscales were found to have strong internal consistency. Mankin et al. (2018) went on to show that the TSWQ exhibited structural validity among teachers from elementary through secondary grades and offered support for the TSWQ's use in schools.

Summary and Conclusions

In this chapter, I explain the literature search strategy, the conceptual framework, and the literature on novice teachers, attrition, and research on attrition and high-stakes testing. These sections helped give background on the concepts and show the gap in the research that this study intends to fill. In the next chapter, the research method for this study is explored.

Chapter 3: Research Method

The purpose of this study was to investigate the relationship between teacher stress caused by the high-stakes testing environment, the well-being of novice teachers, and their intent to leave either their current school or the teaching profession in a mid-Atlantic district. This mixed-methods study also addressed whether that relationship complements the teachers' perceptions of the testing environment. In this chapter, the following sections are covered: (a) setting, (b) research design and rationale, (c) role of the researcher, (d) methodology, (e) threats to validity, (f) issues of trustworthiness, and (g) summary.

Setting

Due to the small population (133) of novice teachers in middle schools in the area of study, this study included all eight middle schools of one mid-Atlantic school district. Because the population was small and the central office for the school district believed novice teachers should receive a limited number of surveys to avoid saturation, all eight middle schools were included to obtain an adequate sample size. The statistical integrity of the results of the data investigated were obtained with a higher interval of confidence with the inclusion of as many middle school novice teachers as permitted by the school central office. In addition, using all eight middle schools would provide a broader understanding of the district. The attrition rate for the state was 2% higher than the national average of 10.2% (Mid-Atlantic Advisory Committee on Teacher Shortages, 2017). In 19 of its 133 school districts, the attrition rate is over 30%. In the area where this study was conducted, the state was experiencing one of the most severe shortages

(Mid-Atlantic Advisory Committee on Teacher Shortages, 2017). In the study site district, the rate of teachers leaving decreased from 14.3% in 2016 to 11.4% in 2017, but the attrition rate was still higher than the national and state averages. The higher percentages of attrition for the district indicated a need to study possible factors for teacher attrition so that interventions could be put in place to curb it.

The district includes all of the public schools for the county in which it resides, for a total of 30 schools. The county is roughly 269 square miles and has a population of about 149,960 (U.S. Census Bureau, 2018). Between 2010 and 2018, the population of the county grew 16.3% (U.S. Census Bureau, 2018). The population has a racial breakdown of (a) 71.6%, White (b) 19.5% Black or African American, (c) 0.7% American Indian and Alaska Native, (d) 3.7% Asian, (e) 0.2% Native Hawaiian and Other Pacific Islander, and (f) 4.4% two or more races (U.S. Census Bureau, 2018). In addition, 13.6% claim to be Hispanic or Latino (U.S. Census Bureau, 2018). The median household income in 2017 was \$103,005 (U.S. Census Bureau, 2018).

Research Design and Rationale

The purpose of this study was to investigate the relationship between the well-being of novice teachers and teacher stress caused by a high-stakes testing environment and teachers' intent to leave either their school or the education profession in a mid-Atlantic school district. Because I also sought to determine whether the findings of the surveys were supported by the perceptions of the teachers, mixed methods research (MMR) was used. According to Plano Clark and Ivankova (2016), MMR is defined as a “process of research when researchers integrate quantitative methods of data collection

and analysis and qualitative methods of data collection and analysis” (p. 56). In the current study, a concurrent MMR (see Appendix A) was conducted because the quantitative and qualitative data were collected at the same time.

Though validated survey instruments were used to collect the quantitative data, surveys alone could not capture the full human experience. To corroborate the findings of the quantitative data, qualitative data were collected to determine whether teachers’ perceptions complemented the survey findings. Complementarity is “an argument for using mixed methods to obtain more complete conclusions by using quantitative and qualitative methods to get complementary results about different facets of a phenomenon” (Plano Clark & Ivankova, 2016, p. 80). This rationale allows the researcher to have confidence in the findings as the two data sets either complement one another or their divergence leads to further research (Plano Clark & Ivankova, 2016).

Role of the Researcher

In this study, I acted as an observer-participant. Being an observer-participant (also known as participant observation) allows the researcher to uncover “the hows and whys of human behavior in a particular context” through immersion (Guest et al., 2013, p. 105). By being an observer-participant, I was able to (a) know what questions to ask the participants and (b) obtain an intuitive understanding for finding meaning in data (see Bernard, 2006). Although data collected and analyzed as an observer-participant can be difficult to generalize and may be biased (Guest et al., 2013), I (a) disclose all of my biases (Creswell & Creswell, 2017), (b) use the code-recode strategy (Anney, 2014), and

(c) use an external reviewer (member checks) to ensure bias does not taint the findings (Anney, 2014).

I had been an employee of the district for 5 years and had worked in four of the eight middle schools as either a middle school math teacher or a middle school math specialist. I had noticed increased levels of stress as the test sessions approached, even as a seasoned professional, and noted how stressful the school environment seemed to become once the state standardized testing sessions began. Standardized testing occurs in the spring right before the time when teachers renew their contracts for the upcoming school year, and I noticed that many effective teachers were deciding to leave their school or the teaching profession. This incidence of teachers leaving the field led me to suspect whether there was a connection between state standardized testing sessions, stressful school environments, and teacher attrition. I suspected that there were negative correlations between state standardized testing and teacher self-efficacy. I see value in learning standards and testing students to ensure that students and educators are held accountable for the attainment of specific learning goals, but I am opposed to pressure and consequences school administrators and state politicians place teachers related to high-stakes testing outcomes.

I have had many encounters with teachers in all stages of their careers and have offered many of them aid in the form of a mentor, someone who researches and distributes lessons and materials, and someone who administers mathematics curricula based on professional development. Though I was never in a supervisory position, I have been the math lead in my current school, which makes me the liaison between

administrators and teachers for the department. Due to the content division in the middle school environment in the district, I have had some dealings with teachers of subjects other than math, but usually only in passing. I am currently trying to work with other departments in my school (specifically the science department) so that math can be integrated into science curricula and other content areas as smoothly as possible to create a more holistic approach to education for students and teachers.

Methodology

In this section, an in-depth description of the study was included so that other researchers can replicate the study. To allow researchers to replicate this study, this section includes: (a) participant selection logic; (b) instrumentation; (c) procedures for recruitment, participation; and data collection; and (d) data analysis.

Participant Selection Logic

The participants in this study were selected by using two criteria: (a) their employment in one of a specific school district's middle schools; and (b) their years of experience. Each participant was from one of eight middle schools in one mid-Atlantic school district and was in their first to fifth year of teaching. The names and emails of participants who meet the requirements were obtained from the central office staff of the district. Though a random sampling is desired, due to limited time and resources, a sample of convenience will be used (Creswell & Creswell, 2017). By surveying teachers in all eight of the middle schools (which was indicated to house about 133 novice teachers total), I planned to study a population that served a student population that was representative of the county. Though about 133 novice teachers were said to be teaching

in the eight middle schools, the central office wanted to minimize the number of surveys they received, fearing over-saturation of surveys would diminish their effectiveness at collecting data, so they would only allow 100 surveys to be distributed. I hoped to get at least 33 surveys back which would give the results an 80% confidence interval with a 10% margin of error.

Due to regulated testing windows for the state standardized tests and the imposed data collection restrictions of the county, the study took place in April of 2020. In March of 2020, I planned go to the eight middle schools and meet with the faculty to describe the study, show hard copies of the survey, and answer any questions they might have. Then, the week before the state standardized testing window opened, an email was to be sent to all potential participants reintroducing myself, explaining the study, informing them of their rights as potential participants, alerting them to the coming survey, and the two-week window for completing it. This would have given the participants a chance to contact me with any additional questions they may have had before the surveys were sent out. A week later the survey was to be sent out to the potential participants and a follow-up reminder was to be sent a week after that. At the end of a two-week window, a random selection of eight study participants who indicated willingness to take part in a telephone interview were contacted. Their phone interviews were then conducted, recorded, and transcribed.

Instrumentation

To answer the quantitative research question, “How does the high stakes test stress of teachers, as measured by the Educator Test Stress Inventory (ETSI), relate to

their perceived well-being, as measured by the Teacher Subjective Well-being Questionnaire (TSWQ), and their desire to potentially leave their school or the profession,” the following three sections were administered via Google forms: (a) demographic section which not only asked about years of experience; gender; and race but also content taught and desire to leave their school and the profession (the last two were asked as yes/no questions); (b) the Educator Test Stress Inventory (ETSI); and (c) the Teacher Subjective Well-being Questionnaire (TSWQ). The ETSI was created by Dr. Nathaniel von der Embse and was copyrighted in 2014. According to von der Embse, Kilgus et al. (2015), the “ETSI was developed to periodically (within and across school years) evaluate teacher stress related to testing and the corresponding influence of educational policies (e.g., changes in teacher tenure, use of standardized testing for merit pay) across time” (p. 11). This brief instrument (only 11 questions), contains two subscales: Sources of Stress (ETSI-S) and the Manifestations of Stress (ETSI-M). Though a relatively new instrument, the ETSI’s validity has been shown by the author. von der Embse, Kilgus et al. (2015) found that the ETSI had a convergent validity with the State-Trait Anxiety Inventory (STAI) and concurrent validity between their subscales. In addition, internal validity was found for the ETSI, $\alpha = .89$, and its subscales ETSI-S, $\alpha = .82$, and ETSI-M, $\alpha = .85$.

The other survey utilized in this study is the TSWQ. The TSWQ was developed and validated by Renshaw et al. (2015). This survey was research designed to be a brief self-reported measure of a teacher’s positive psychological functioning at work and was designed to be used in conjunction with other measures (e.g. observations or other

surveys) to gain a better understanding of what impacts a teacher's ability to function positively at school. Though created with three subscales, the School Connectedness Scale (SCS), The Joy of Teaching Scale (JT), and the Teaching Efficacy Scale (TES), and 24 questions (eight from each subscale), the TSWQ went through a rigorous process to get the instrument down to a short, yet valid measure. In the end, the JT scale was dropped altogether because it was not statistically viable and the four with the highest face validity were selected from the remaining subscales to keep the tool brief. The instrument was checked for construct, structural, and external validity. The TSWQ was found to have both a strong convergent and divergent validity and the subscales were found to have a strong internal consistency (School Connectedness $\alpha = .87$ and Teaching Efficacy $\alpha = .87$) (Mankin et al., 2018). Mankin et al. (2018) went on to show that the TSWQ exhibited structural validity among teachers from elementary through secondary grades and offered support for the TSWQ's use in schools.

To answer the qualitative research question, "What are novice teachers' perceptions of how the environment created by high-stakes testing has impacted their well-being?" phone interviews were utilized (see *Appendix B*). The interviews were conducted concurrently with the surveys, so participants were asked if they would be willing to participate in a short 20-minute phone interview within the next two weeks. The reason for this was since the testing would be going on at this time, I wanted to make sure that the teachers could express how they were currently feeling about the process in both the survey and the interview, to ensure that they can accurately describe how their current environment was impacting them (Plano Clark & Ivankova, 2016).

The second question of this research paper focused on how novice teachers' perceptions of high-stakes testing environment affected their well-being, as it relates to their teacher self-efficacy and their feelings of school connectedness. The interview questions were created before participants completed the survey and were designed to gain a deeper understanding of how the environment was impacting the teachers' desire to leave their school, to see if what is said matches what was found in the surveys, and if it can explain what was found in the survey data. To obtain the answer to research question two, the following five questions were asked: (a) Have there been any changes in the school since this testing session began? If so, what is that change/were those changes? How did it/they impact you? Who(m) was the main driving force in these changes? (b) Do you feel you were adequately prepared for this current testing session? Why or why not? (c) How did you perceive your abilities as a teacher before the current [state standardized test] session began? How do perceive them now that it has begun? (d) Did you feel pressure/urgency to perform well on the [state standardized] test before the current testing session began? If so, from who did you feel this pressure/urgency? What were they concerned with? and (e) Do you feel pressure/urgency to perform well on the [state standardized] test now that testing has begun? If so, from who did you feel this pressure/urgency? What are they concerned with? The interviews were recorded, transcribed, and then coded to ensure the reliability of the findings. I also took notes as I conducted the interviews.

Procedures for Recruitment, Participation, and Data Collection

To collect the quantitative data for this study, participants were to be alerted of the study through a staff meeting, then a follow-up email was to be sent. One week after the first group email was sent, a second email was to be sent to 100 of the 133 novice teachers in the district. This follow up email was intended to provide a return ratio of approximately 25% in order to obtain at least 33 surveys for analysis. The county was worried about over surveying this population, so only 100 invites were approved to be sent out. This return rate would have given the results an 80% confidence interval with a 10% margin of error. To collect the data of demographics, intent to leave, teacher test stress, and perceived well-being, Google forms was utilized. This medium allowed me to easily compile all 33 questions into one convenient location and create sections for when new directions were needed. Once completed, all collected data was sent to my Google drive where the I could: (a) look at individual answers; (b) look at all responses at once; and (c) convert all answers into a spreadsheet. The survey answers were presented, by the software, in pie charts automatically for easy viewing of the population breakdown where applicable. Not only was the data be easily copied and pasted into SPSS, but it was also downloaded into an excel spreadsheet, saved on an external hard drive and flash drive, and then deleted from the online database where it was originally stored. Being able to quickly and easily move the data helped ensure data was secure.

For the semi-structured phone interview portion, the questions in *Appendix B* were created by me. Due to the limited window in which the study could be conducted, it was imperative to conduct the interviews promptly. Since I collected eight interviews

from participants who completed the survey, it would have been difficult to arrange a time and place for myself and participants to meet. Guest et al. (2013) discuss, depending on the size and homogeneity of the participants, that a saturation of themes is found to occur somewhere between six and 12 interviews. Due to the sample being small, but the population potentially variable in the content taught, gender, and age, more interviews than the minimum of six were sought. A focus group setting could have been used as an alternative to face-to-face interviews as they are good for time constraints (Guest et al., 2013), however, some participants might not have felt comfortable answering questions about their school environment in front of other teachers for fear that something they say may get back to an administrator or another person of authority. For these reasons, the phone interview model was chosen for this study as it allowed for the interviews to be conducted quickly in the given timeframe. It also allowed the teachers the ability to answer questions anonymously, which helped eliminate possible constraints facing the novice teacher.

Data Analysis Plan

To analyze the quantitative data, multiple Spearman Correlations were run in SPSS between the following data points: (a) total score of the TSWQ and the total score of the ETSI; (b) total score of the TSWQ and teachers' decision to leave their school; (c) total score of the TSWQ and teachers' decision to leave the profession; (d) total score of the ETSI and teachers' decision to leave their school; and (e) total score of the ETSI and teachers' decision to leave the profession. There are two reasons for using this non-parametric measure: (a) population distribution (de Winter et al., 2016); and (b) ordinal

data (Schober et al., 2018). Since the participants were to be from eight middle-schools in a mid-Atlantic school district, a normal distribution could not be assumed. The Spearman coefficient also represented as ρ (rho) or “ r_s ”, is used in circumstances where normal distribution cannot be assumed, because of its variability and robustness (de Winter et al., 2016). In addition, the ETSI and the TSWQ both use ordinal data which the Spearman coefficient can calculate with ranking, the Pearson coefficient can only be calculated with actual values (Schober et al., 2018).

To analyze the interview portion of this study, I analyzed the answers to the phone interview questions (see *Appendix B*) in five stages (Creswell & Poth, 2018). First, I managed and organized the data. To do this, I transcribed phone conversations into individual word documents. Included in each transcription of telephone interviews was a summary of notes taken during the call. These documents were then named as a number (1-8) and was saved on the same external hard drive and flash drive the survey data was saved on. Documents were printed out so coding could be completed by hand (Creswell & Poth, 2018). Second, I took notes on the documents and did a first-cycle coding by practicing inductive coding (Miles et al., 2018). Third, I conducted a second-cycle coding and revised the original codes which included renaming codes and condensing multiple codes into one new code (Miles et al., 2018). Fourth, I placed the codes into the categories of teacher well-being, with the subcategories of teacher self-efficacy and school connectedness, or high-stakes test stress. Fifth, I developed and assessed interpretations based on the pattern coding results (Miles et al., 2018). Lastly, the interpretations were recorded into findings and those findings were handed over to an

external reviewer along with the data from which it was obtained, to ensure bias did not influence my findings. To determine themes among the participants, I coded and then analyzed the findings into themes (Creswell & Poth, 2018). These findings were then examined to determine points of relationship.

Threats to Validity

When conducting research, there are many instances where the validity of a study can be put at risk. Validity “refers to whether one can draw meaningful and useful inferences from scores on particular instruments” (Creswell & Creswell, 2017, p. 353) and can be threatened in two different ways, externally and internally. External validity threats refer to “when experimenters draw incorrect inferences from the sample data to other persons, other settings, and past or future situations” (Creswell & Creswell, 2017, p. 333). These threats arise when a researcher applies their findings to people, situations, or periods that do not match that of the tested population which could produce incorrect conclusions about those new people, situations, or periods. Internal threats to validity “are experimental procedures, treatments, or experiences of the participants that threaten the researcher’s ability to draw correct inferences from the data about the population in an experiment” (Creswell & Creswell, 2017, p. 334). This occurs when the researcher does not control the study, leading to inconsistencies and an inability to draw reliable inferences from the data collected. Both types of threats are detrimental to a study, this section will discuss how this study will provide controls for these threats.

In this study, the following threats to external validity needed to be accounted for: setting, population selection, reactivity to the interviewer, reactivity to the topic, and time

(Creswell & Creswell, 2017; Lavrakas, 2008). The setting and, as a result, the population selection could limit the generalizability of the findings. To ensure that the results could be generalized to the district, all eight middle schools were to be used so that the student population mirrors that of the district. In addition, a detailed account of the population of the district will be given so those whose population mirrors that of the study can apply the findings.

Another threat to external validity is the reactivity of the population to both the interviewer and the topic. Lavrakas (2008) defined reactivity as when the subject of the study is affected either by the instrument(s), the interviewer, or some other aspect that may influence the participants' answers, thus changing the outcome of the findings. In this study, participants could display reactivity to both the interviewer and the topic. The interviewer has worked in four of the middle schools in the district, meaning she has interacted with many different teachers. To ensure participants did not feel pressured to participate, they were sent an email explaining the study and who is conducting it a week before the collection of data. In addition, due to the sensitive nature of the study (possibility of leaving their current school or the district), participants may also not feel comfortable answering the questions honestly. To help alleviate this threat to validity, participants were assured that their privacy was of utmost importance to myself. If participants had any concerns or questions, they were able to contact me before getting the survey.

The last threat to external validity of this study is the time in which the study will be conducted (Creswell & Creswell, 2017). Since I wanted to focus on the impact of

high-stakes test stress, the study must be conducted during the school district's testing window as it may have been the first time some of the novice teachers have experienced high-stakes testing. One of the instruments being used in this study, the ETSI, was developed to be given multiple times during each school year. This instrument could then give administrators a gauge of individual teacher's high-stakes test stress and help align interventions when necessary (von der Embse, Kilgus et al., 2015). Because of these factors, the results from this study cannot be generalized to those of a similar population who administer their tests at a different time of year.

In addition to external threats to validity, this study also had some internal threats: history and participant selection. A history threat refers to experiences that could happen to the subjects of a study, outside of the experiment itself, that could influence the results of the study (Creswell & Creswell, 2017). Since both the survey and the interview needed to be conducted in the same period to measure the impact of standardized testing on novice teachers, the two parts were conducted concurrently in hopes of minimizing this threat (Plano Clark & Ivankova, 2016). In addition, as in the external validity threats, an internal threat to validity is participant selection. Participant selection can be a threat if participants are specifically chosen to participate because they would be predisposed to certain outcomes (Creswell & Creswell, 2017). To counter this, as stated earlier, all eight middle schools were to be used for the study so that the district population of students would be reflected in the sample.

Issues of Trustworthiness

Since this is a mixed-methods research study, not only do threats to validity need to be addressed to ensure that the quantitative piece is reliable, issues of trustworthiness must also be addressed to ensure that the confidence in the qualitative portion.

Trustworthiness refers to how researchers conduct their research so that their findings are persuasive and worthy of the attention (Plano Clark & Ivankova, 2016). In this section, the four main components of trustworthiness, and possible issues with them, will be discussed: credibility, transferability, dependability, and confirmability. In addition, because the handling of people and their data is a major concern of research, ethical procedures will also be discussed.

Credibility is defined as the “extent to which the qualitative findings are perceived as accurately conveying the study participants’ experiences” (Plano Clark & Ivankova, 2016, p. 162). To ensure that the results of the study are credible, I employed complementarity, reflexivity, and peer review. Complementarity is the use of qualitative and quantitative methods to obtain complementary information that paints a more complete picture of the phenomenon being studied (Plano Clark & Ivankova, 2016). This was used to ensure that the data gathered through the quantitative instruments aligned with what the participants disclosed in the interviews and that no other factors were influencing their responses. According to Creswell and Creswell (2017), reflexivity “means that researchers reflect about their biases, values, and personal background and how this background shapes their interpretations formed during a study” (p. 339). This allowed me to disclose any personal thoughts or information that may influence her

interpretations of the data. Reflexivity showed the reader that I openly acknowledges my past with the topic and any notions she has, so they can consider that when reviewing the results. Peer review was utilized through my dissertation committee. The committee is there to ensure that the results concluded were obtained without bias and presented appropriately.

Transferability is “the degree to which conclusions from a mixed-methods study can be applied to similar settings, contexts, and people” (Plano Clark & Ivankova, 2016, p. 163). To ensure that the data of this study was transferable, a thick description was given. A thick description is a very detailed layout of how the study was conducted and how the results were analyzed so that the study can be properly replicated (Anney, 2014). In addition, this thick description included a very detailed description of the setting and people so others could decide on its ability to be applied elsewhere.

Dependability refers to the ability of a study’s conclusions to hold up over time (Bitsch, 2005). To ensure the results of this study were dependable, the code-recode strategy was used. The code-recode strategy is when a researcher codes the qualitative data, takes a week or more break and then comes back and recodes the data to ensure the same results were obtained (Anney, 2014). An external reviewer was asked to review my findings to ensure bias did not taint them. This strategy also helped with confirmability, which refers to the ability of other researchers to confirm or corroborate the findings of a study (Baxter & Eyles, 1997). To help with confidentiality, I was to have the external reviewer sign a confidentiality agreement.

Ethical Procedures

To ensure that the study was ethically conducted, several steps were followed. First, approval to conduct the study was obtained from the Institutional Review Board (IRB). Walden University's approval number for this study is 02-12-20-0329911 and it expires on February 11, 2021. This application did not only include the application to gain access to the schools, but also the consent to participate forms for the participants. Next, the application to conduct the study in the district was submitted to its central office for approval. Once approval was obtained from the district, the potential participants were invited to an information session and explained what the study was about, that there are two separate portions, a survey and a phone interview, and how their identities would be kept confidential. They were then told that if they were one of the 100 chosen and they did not want to participate, they could simply delete the email. They were told that findings of the study would be presented to those in central office upon the full acceptance of this dissertation by my university.

The survey data was collected via Google forms. This information was downloaded into an Excel sheet and then deleted from Google drive. This information was stored on two separate external storage devices, which will be stored separately from one another to ensure the data can be accessed at any time. These external storage devices are stored with the transcripts from the interviews. Once the phone recordings were transcribed and checked for accuracy, they were deleted. The external storage devices will be kept for 5 years, at which time the contents will be erased. The myself and the

external reviewer, my committee chair, are the only people who have access to the survey data, the recordings, and the transcripts.

As mentioned in the threats to validity and issues of trustworthiness sections, this study was conducted in the school district in which I work. Steps were put in place to ensure that external and internal validity were not be impacted. In addition, using reflexivity to disclose personal experiences with the district allows readers to see any bias that may have been present at the time the data was analyzed.

Summary

In this chapter, the procedures for conducting the study and reasoning for choosing them were discussed. If another researcher would like to replicate this study, reviewing the sections on the setting, research design and rationale, role of the researcher, methodology, threats to validity, and issues of trustworthiness would allow them to do so. In the next chapter, the results of the study will be discussed.

Chapter 4: Results

The purpose of this concurrent complementary mixed-methods study was to investigate the relationship between teacher stress caused by high-stakes testing, the well-being of novice teachers, and their intent to leave teaching in a mid-Atlantic school district. I also sought to determine whether that relationship complements the teachers' perceptions. I used two research questions, one quantitative and one qualitative, to guide the study. The quantitative question was the following: How does the high stakes test stress of teachers, as measured by the Educator Test Stress Inventory (ETSI), relate to their perceived well-being, as measured by the Teacher Subjective Well-being Questionnaire (TSWQ), and their desire to potentially leave their school or the profession? This question addressed whether the independent variable (the ETSI score) correlated to the dependent variables (the teachers' desire to leave their school and the teachers' desire to leave the profession). The quantitative findings were then compared to those from the qualitative question (What are novice teachers' perceptions of how the environment created by high-stakes testing has influenced their well-being?) to determine whether the findings complemented each other. This chapter includes the following sections: research setting, demographics, data collection, data analysis, study results, evidence of trustworthiness, and summary.

Research Setting

At the time this study was conducted, the United States was gripped by the COVID-19 pandemic, which caused many issues for the study. First, when the study was finally approved by the site school, all staff at the central office were working remotely

and were trying to figure out how to conduct school during the closure. This led to some confusion regarding the list of potential participants given to me, including the contact information of people who did not qualify for the study. This resulted in significant correspondence to correct the issue, but the final participant list still included names of teachers who did not qualify for the study.

Another issue created by the COVID-19 pandemic was the fact the preplanned, in-person information session to discuss the study with potential participants could no longer take place. Instead, two online information meetings were set up, one during normal business hours and one after hours, to allow potential participants to learn about the study and ask questions. Because teachers were being inundated with online meetings explaining how they needed to proceed with teaching their students online, I recorded the second session and sent it out to all participants in case someone could not attend either meeting. At the beginning of the second meeting, all participants were made aware of being recorded and were informed that they could leave the meeting and watch the recording in privacy. Twelve participants remained in the meeting, but there was no control set up to monitor the number of participants based on the number of possible onlookers.

The final issue created by the COVID-19 pandemic was that the high-stakes tests scheduled for April and May were cancelled for the entire state for the 2019-2020 school year. With the uncertainty of how long the pandemic would last, there was no way of knowing whether all of the high-stakes tests for the 2020-2021 school year would also be cancelled. I decided to continue with the study during the crisis because (a) all middle

schools in the district had participated in the eighth-grade writing high-stakes test (something that happens earlier in the school year due to its lengthy grading process), so teachers could draw on that experience if needed; and (b) the district's policy that no research studies be conducted from May-September meant that some (if not all) middle schools may not have been in the physical act of administering or preparing for any high-stakes tests at the time the study had to be conducted, so those teachers would have had to pull from either the writing test experience or previous experiences. Although the eighth-grade writing scores, as determined by the state, were not to be counted in the evaluations of schools because not all students who needed to had completed the writing test and those who could retake it would not have the opportunity, this decision was not made until after the COVID-19 pandemic closed the schools for the year, meaning the normal stress associated with the high-stakes test was still present during the administration of the test.

Demographics

For this study, there were 25 participants in the quantitative portion and eight participants in the qualitative portion. The quantitative demographics were organized in terms of personal, state, and school level associations. Personal demographics collected in this study included age, gender, race, and ethnicity. The ages of participants ranged from 23 to 54 with the median age being 29 (see Table 1). The demographics that were monitored by the state, including whether teaching was their first career, what type of license they were using, and how many years of experience they had in teaching and at their current school, are presented in Table 2. Finally, demographics monitored at the

school level, including subjects and grades taught, whether teachers taught a high-stakes tested subject, and whether they were considering leaving their school or the profession before the start of the next school year, are presented in Table 3.

Table 1*Personal Demographics*

Demographic	<i>n</i>	Percentage
Gender		
Female	21	84
Male	3	12
Other	1	4
Race		
White	22	88
Black	3	12
Ethnicity		
Hispanic or Latino	1	4
Not Hispanic or Latino	24	96

Table 2*State-Monitored Demographics*

Demographic	<i>n</i>	Percentage
Highest level of education		
Bachelor's	13	52
Master's	11	44
Doctorate	1	4
Was teaching your first career?		
Yes	13	52
No	12	48
Is your teaching license provisional?		
Yes	11	44
No	14	56
What year of teaching are you in?		
First	5	20
Second	9	36
Third	3	12
Fourth	3	12
Fifth	5	20

Table 3*Demographics Monitored at the School Level*

Demographic	<i>n</i>	Percentage
Number of subjects taught		
One	21	84
Multiple	4	16
Largest groups to respond to survey?		
Only taught math	10	40
Only taught language arts	6	24
Grade level(s) taught		
Sixth only	7	28
Seventh only	5	20
Eighth only	4	16
Sixth and seventh	2	8
Seventh and eighth	2	8
Sixth, seventh, and eighth	5	20
Do you teach a subject with a high-stakes test associated with it?		
Yes	21	84
No	4	16
Considering leaving their school before the next school year?		
Yes	3	12
No	15	60
Maybe	7	28
Considering leaving the teaching profession before the next school year?		
Yes	5	20
No	20	80
Maybe	0	0

Table 1 shows that those who completed the survey overwhelmingly identified as female, white, and/or not Hispanic or Latino. Table 2 shows a relatively equal distribution of participants among bachelor's and master's degrees, teaching as a first career, and licensure status. In addition, Table 2 shows participants were relatively evenly divided into either being in their first or second year and being in their third, fourth, or

fifth year of teaching. Table 3 shows that most of the participants only taught one subject, taught a high-stakes tested subject, and/or were not considering leaving the profession of teaching before the next school year.

In terms of the qualitative data, less personal information was collected from the eight participants so teachers would not feel like they could be personally identified by their answers. Participants were asked the number of years they had been teaching, the subjects they taught, and whether they taught a high-stakes tested subject. Table 4 shows these demographics for each participant in addition to the code used for them.

Table 4

Interview Participants' Demographics

Interview number	Number of years teaching	Subject(s) taught	Participant code
1	2	Math 6 only	Participant 1
2	3	Math 7 only	Participant 2
3	2	Math 6 only	Participant 3
4	2	Orchestra and chorus	Participant 4
5	2	English 6 and 7	Participant 5
6	1	Math 6 only	Participant 6
7	1	English 8 only	Participant 7
8	5	Drama	Participant 8

Data Collection

Upon being approved by Walden University and the district to conduct the study, the contacts at central office forwarded me the emails and schools of all the teachers who met the criteria of being a middle school teacher in their first to fifth year of teaching. One of the requirements of conducting the study in the district was that I could not use teachers from my own school; however, the emails for teachers at my school were still

sent to her. Upon looking at the emails from my current school, I noticed the inclusion of a teacher who was new to the school but was a 20-year veteran of the field. I then reached back out to those at central office to point this inclusion and to ask for them to look over the list of names to see if any others were included that did not meet the criteria. After receiving this update, the central office determined that three teachers who had originally been included in the study did not meet the requirements of inclusion. After these three teachers were removed from the study, 172 novice teachers who taught middle school in the district were available as potential participants in the study. After removing teachers from the school where I worked, a candidate pool of 141 teachers remained as potential compliances. Then I calculated what percentage of the 141 participants represented each of the remaining seven middle schools by dividing their number of novice teachers by the total. From here, numbers were assigned to each teacher at each school and a random number generator was used to pick the teachers who would participate. The number of teachers selected from each school was equal to their calculated percentage as the district only allowed 100 teachers to be surveyed.

Once the teachers were selected, an email was sent to these teachers telling them about the study and inviting them to attend one of two online information meetings held in Google Meets. These meetings were held instead of the originally planned in person meetings because Covid-19 shut the schools down and restricted group meetings. The virtual meetings, one during normal business hours and one after, allowed potential participants the ability to learn about the study and ask questions. The second session was recorded and sent out to all potential participants in case they could not make either

meeting. All participants in the second meeting were made aware of the recording before it occurred and were told they could leave and watch the recording later if they did not feel comfortable being on the recording. In the end, 12 people attended the online meetings, five in the first and seven in the second. The recording was emailed out shortly after the completion of the second meeting, but no one responded with any questions.

A week after the last meeting, a space left in case anyone had any other questions, I sent out the invitation to the 100 randomly selected potential participants, to complete the study via Google Forms. After a week of the survey being out, a reminder email was sent. In the end, 26 participants completed the online surveys, but only 25 were valid. Upon submitting the survey, the 26th participant realized she had mis-counted her years of experience and she did not qualify for the study and her answers were discarded. This alerted me to the fact that others may have been included in the final potential participant list that did not qualify and did not reach out to notify me of this, meaning the number of novice teachers teaching middle school in the county was less than the original 172 indicated.

Of the 25 valid surveys, there was no missing data, so all could be used in data analysis. Unfortunately, this number fell below my desired 33 surveys which would have given the results an 80% confidence interval with a 10% margin of error. In person meetings may have produced more volunteers, but as that was not possible in the environment created by the Covid-19 pandemic, the 25 was considered an acceptable number of participants. The 25 surveys now give the results an 80% confidence interval with a 11.2% margin of error, though this is based off of the 141 potential participant

sample size, which is now known to be an inaccurate representation of the population being studied.

Of the 25 teachers who completed the survey, 12 said they were willing to participate in a phone interview. An email was sent out, a week and a half after the original study invite was sent to participants, to these teachers to confirm their interest and only eight responded and they all said they were still interested in participating. I then responded to each participant to set up an interview. At the time of the interview, I called the participant, verified they still wanted to participate and remind them they would be recorded. Once the participant confirmed their understanding of the recording and consented again to participate, I turned on the recording app and began the interview, none of which took more than 25 minutes to complete. All eight participants completed the entire phone interview and all eight were completed before the district-mandated conclusion of research for the school year.

Data Analysis

Quantitative Analysis

Quantitative data analysis of this study was originally going to include the Spearman Correlation in SPSS between the following data points: (a) total score of the Teacher Subjective Well-being Questionnaire (TSWQ) and the total score of the Educator Test Stress Inventory (ETSI); (b) total score of the TSWQ and teachers' decision to leave their school; (c) total score of the TSWQ and teachers' decision to leave the profession; (d) total score of the ETSI and teacher's decision to leave their school; and (e) total score of the ETSI and teachers' decision to leave the profession. The

reasoning behind using this non-parametric test over the Pearson Correlation was due in part to the population distribution (de Winter et al., 2016). The Spearman coefficient is used in circumstances where normal distribution cannot be assumed, because of its variability and robustness (de Winter et al., 2016). Since the participants were going to be from eight middle schools in one school district in the mid-Atlantic, normal distribution could not be assumed. However, when the descriptive statistics were run on the variables (ETSI score, TSWQ Score, Leaving their school, and Leaving their Profession) (see Table 5), the Skewness and Kurtosis of all variables fell between -2 and +2, showing that they were all normally distributed, meaning the Pearson Correlation could be run on the data instead.

In addition, the Spearman Correlation was originally sought as the ETSI and the TSWQ both use ordinal data which the Spearman coefficient can calculate with ranking and the Pearson coefficient can only be calculated with actual values (Schober et al., 2018). However, since total scores were being utilized for the ETSI and the TSWQ, the Pearson coefficient could be utilized in analyzing the quantitative data.

Table 5*Descriptive Statistic of Variables*

Original data points	<i>N</i>	Min	Max	Mean	Std dev	Statistic	Skewness std error	Statistic	Kurtosis Std error
ETSI Total	25	24	52	38.28	8.556	.033	.464	-1.140	.902
TSWQ Total	25	18	32	25.04	3.791	.315	.464	-.525	.902
Leaving Profession	25	1	2	1.20	.408	1.597	.464	.593	.902
Leaving School	25	1	3	2.48	.714	-1.043	.464	-.151	.902
Valid N (listwise)	25								

After inputting data between the four variables, the ETSI total, TSWQ total, if they were considering leaving their school before the next school year, and if they were considering leaving the profession before the next school year, it was determined that the sub scales of the TSWQ would be a better overall indicator of teacher well-being as their alpha levels (both .87) were the better measure than the TSWQ total whose alpha was not reported. The Pearson correlation was then run in SPSS on the following five variables: the ETSI total, the TSWQ school connectedness sub-scale total, the TSWQ teacher efficacy sub-scale total, leaving their school, and leaving the profession. The sub-scales skewness and Kurtosis were both between -2 and +2 and their total scores could be used (see Table 6), so the Pearson correlation could still be used.

With the use of SPSS to run the quantitative data of this study, some data needed to be recoded before it could be run. Due to the fact that the a higher total score on the ETSI meant the teacher was experiencing more test stress, a negative experience, and a

higher score on the sub scales of the TSWQ meant the teacher was experiencing a higher sense of efficacy or connectedness to their school, a positive experience, a re-coding of the variables was needed. It was decided to recode the ETSI to where a higher score meant less test stress, a positive experience, to match the higher score, positive experience associated with the TSWQ sub scales.

Table 6

Descriptive Statistics of the Subscales

Subscale	<i>N</i>	Min	Max	Mean	Std dev	Statistic	Skewness std error	Statistic	Kurtosis Std error
School Connectedness Sub-Scale Total	25	7	16	12.60	2.432	-.208	.464	-.370	.902
Teacher Efficacy Sub-Scale Total	25	8	16	12.44	2.293	-.029	.464	-.794	.902
Valid N (listwise)	25								

Qualitative Analysis

The framework of Miles et al. (2018) was used to inform the analysis of these results. After the phone interviews were transcribed and printed out, I took notes on the documents and did a first-cycle coding by practicing inductive coding (Miles et al., 2018). Next, I conducted a second-cycle coding and revised the original codes which included renaming codes and condensing multiple codes into one new code (Miles et al., 2018). Then, I placed the codes into the categories of teacher wellbeing, with the subcategories of teacher self-efficacy and school connectedness, or high-stakes test stress. Lastly, I developed and assessed interpretations based on the pattern coding results (Miles et al., 2018).

Table 7*First-Cycle Codes*

Codes
Classroom management
Confidence
Data
Self-pressure
No voice
Feeling taken advantage of
Teaching during the test sessions
Proctoring
Teacher anxiety
Student anxiety
Stress
Training
Keeping students quiet
Special education
Environmental/peer pressure
Communication
Schedule
Peer support
Administration pressure
Administration support
Lack of support
Reviewing for the test

Table 8*Second-Cycle Codes and Recodes*

Original Code(s)	Recode
Classroom management/keeping students quiet	Controlling student behaviors
Confidence	Confidence in the teacher's own abilities
Data	Data they were/were not provided
Self-pressure	Self-pressure
Feeling taken advantage of/ no voice	Feeling powerless
Teaching during the test sessions/reviewing for the test	Teaching around or for the standardized tests
Proctoring the state test	Proctoring the state test
Teacher anxiety/stress	Teacher stress
Student anxiety/ special education	Student concerns
Training they want to receive	Training they want to receive
Environmental/peer/administration pressure	Environmental pressures
Communication	Communication among the teachers and administrators
Schedule	Scheduling issues
Peer/administration/lack of support	Support from or lacking from colleagues and administrators

The final 14 codes were then broken up into the two categories of teacher well-being or high-stakes test stress. Since this study defines a teacher's well-being as teacher self-efficacy and school connectedness, I broke those codes that fell under the well-being category into these two sub-categories. Of the 14 codes, seven were placed under well-being and of those seven, three were placed under the teacher self-efficacy sub-category and four were placed under the school connectedness sub-category (see Table 9). The remaining seven codes were placed under the high-stakes test stress category (see Table 10).

Table 9*Teacher Well-Being Category*

Teacher self-efficacy subcategory codes	School connectedness subcategory codes
Confidence in the teacher's own abilities	Communication among the teachers and administrators
Teaching around or for the standardized tests	Data they were/were not provided
Controlling student behaviors	Feeling powerless Support from or lacking from colleagues and administrators

Table 10*Teacher Test Stress Category*

Teacher test stress codes
Self-pressure
Proctoring the state test
Teacher stress
Student concerns
Training they want to receive
Environmental pressures
Scheduling issues

Some of the codes could have been placed in multiple categories. For instance, the concept of “feeling powerless” was placed under the subcategory of school connectedness because many some of the interviews discussed this concept in terms of their inability to be paid attention to by their peers or administration. However, this could also be an issue of self-efficacy as it deals with a person’s perception of their ability to produce certain outcomes (Bandura, 1994). However, since the definition of well-being in this study is being defined in terms of teaching self-efficacy and the teachers’ responses dealt with their ability to affect change in non-teaching situations, powerless was coded under the school connectedness category. Regarding feeling powerless,

- “but as a first-year teacher, I’m not going to have a lot of credibility putting that out there,” (Participant 6)
- “... it doesn’t stress me out or anything, it just makes me feel a little taken advantage of” (Participant 4)

which shows that it was not their abilities as teachers they were concerned with, but rather their abilities to influence the workings of their school.

In addition, environmental pressures and self-pressure could have been placed in the well-being category. In terms of environmental pressures, these, whether they were from administration, such as “All right you guys, you have to take this seriously” (Participant 7) or from peers, “my coworkers, some of them, kind of bragged about how well their children always do on the [standardized test]” (Participant 3), were always expressed in relationship to standardized testing. Had the pressure been discussed as an issue that permeated other aspects of their position, then the code could have been moved to the school connectedness sub-category, but as it was expressed, it belongs in the high-stakes test stress category. The same is line of thinking could be applied to the self-pressure code and its potential of being placed in the teacher self-efficacy sub-category. However, when a teacher mentioned self-pressure, they did it in terms of standardized testing:

- “... you can argue all day about...how good of an assessment the [standardized test] is, but it’s a good mark on the wall...if they’re [students] doing well then you know you’ve been successful.” (Participant 5)

- “I wanted to compare my scores to other teachers...to see that I didn’t fail my students compared to other teachers.” (Participant 1)

For categorical purposes, self-pressure, like the environmental pressures, were primarily dependent on standardized testing, so self-pressure was placed in the high-stakes test stress category.

Study Results

Research Question 1

RQ1: (Quantitative) How does the high-stakes test stress of teachers, as measured by the Educator Test Stress Inventory (ETSI), relate to their perceived wellbeing, as measured by the Teacher Subjective Wellbeing Questionnaire (TSWQ), and their desire to potentially leave their school or the profession?

H₀: There is no correlation between novice teachers’ stress associated with high stakes testing as measured by the ETSI, their perceived well-being as measured by the TSWQ, and their desire to potentially leave their school or the profession.

H_a: There is a correlation between novice teachers’ stress associated with high stakes testing as measured by the ETSI, their perceived well-being as measured by the TSWQ, and their desire to potentially leave their school or the profession.

To answer the above researcher question, a Pearson product-moment correlation coefficient was computed to assess the relationship between the following variables: ETSI total, the TSWQ School Connectedness Sub-Scale, the TSWQ Teacher Efficacy Sub-Scale, the teacher’s desire to potentially leave their school, and the teacher’s desire to potentially leave the profession.

Table 11*Pearson Correlations*

Variables	Correlation	ETSI Total	School Connect Sub-Scale Total	Teacher Efficacy Sub-Scale Total	Leaving School	Leaving Teaching Profession
ETSI Total	Pearson Correlation	1	-.411*	.187	.086	-.231
	Sig. (2- tailed)		.041	.371	.682	.266
	N	25	25	25	25	25
School Connectedness Sub-Scale Total	Pearson Correlation	-.411*	1	.287	.331*	.000
	Sig. (2- tailed)	.041		.164	.106	1.000
	N	25	25	25	25	25
Teacher Efficacy Sub- Scale Total	Pearson Correlation	.187	.287	1	-.058	-.365*
	Sig. (2- tailed)	.371	.164		.783	.073
	N	25	25	25	25	25
Leaving School	Pearson Correlation	.086	.331*	-.058	1	-.057
	Sig. (2- tailed)	.682	.106	.783		.786
	N	25	25	25	25	25
Leaving Teaching Profession	Pearson Correlation	-.231	.000	-.365*	-.057	1
	Sig. (2- tailed)	.266	1.000	.073	.786	
	N	25	25	25	25	25

Of the eight correlations run (see Table 11), five of them were found to be not significant at the $p < .20$:

- ETSI total and TSWQ Teacher Efficacy sub scale: $r(23) = .19$, $p > .20$
- ETSI and decision to leave the profession: $r(23) = -.23$, $p > .20$
- ETSI and decision to leave the school: $r(23) = -.09$, $p > .20$

- TSWQ School connectedness sub scale and decision to leave the profession:
 $r(23) = .00, p > .20$
- TSWQ Teacher Efficacy sub scale and decision to leave the school $r(23) = -0.58, p > .20$

However, three correlations were found to have $p < .20$: the ETSI total and the TSWQ school connectedness sub-scale ($r(23) = -.41, p < .20$), the TSWQ teacher efficacy sub-scale and the decision to leave the profession ($r(23) = -.37, p < .20$), and the TSWQ School connectedness sub scale and decision to leave the school ($r(23) = .33, p < .20$). Though a significance level of $p < .05$ is the standard level to determine significance, the small population of this study allowed for a higher level of $p < .20$ to be used and still assume significance. For the ETSI total and the TSWQ school connectedness sub-scale, the size of the correlation was $-.41$, is a practically significant effect size (Ferguson, 2009) and the significance level was $p < .05$. This means that as a person's feeling of connectedness towards their school decreased, their overall stress as it relates to high stakes testing decreased. Next, the TSWQ teacher efficacy sub scale and the decision to leave the profession, the size of the correlation was $-.37$, a practically significant effect size (Ferguson, 2009), and the significance level was $p < .10$. This means that as teacher efficacy decreases, desire to leave the profession increases. Finally, the TSWQ School connectedness sub scale and decision to leave the school the size of the correlation was $.33$, is a practically significant effect size (Ferguson, 2009), and the significance level was $p < .20$. This indicates as the teachers' feeling of school connectedness increased, their desire to leave their school increased. Though a correlation was found between three

of the eight correlations run, this is not enough to show that the teacher test stress impacts a teacher's well-being and their desire to leave their school or the profession. Because of this, this research fails to reject the null hypothesis.

Research Question 2

RQ2: (Qualitative) What are novice teachers' perceptions of how the environment created by high-stakes testing has influenced their well-being?

Two different concepts were utilized to inform the results of the qualitative portion of this study: teacher stress and teacher wellbeing. Teacher stress is described as an "experience by a teacher of unpleasant, negative The interview questions were based on the constructs from the two concepts.

Subtheme 1

To answer RQ 2, six interview questions were asked (listed in *Appendix B*). Those results were divided into two large categories of teacher well-being and teacher test stress. The teacher well-being category was divided into the subcategories of teacher self-efficacy and school connectedness. There were two subthemes derived from the data. The first subtheme emerged from analyzing across the two categories: teacher self-efficacy was set before standardized testing began and was not impacted by the tests. This subtheme was mentioned by all eight participants. Within that subtheme, two smaller categories emerged. The first smaller category revolved around the teachers' confidence in their abilities.

Teacher Self-Efficacy. When asked about how they felt about their abilities as teachers before and after the standardized testing session began, seven of the eight teachers' responses held the same confidence in ability:

- “I thought I did okay...I definitely wasn't the best, I've only been doing it for two years, ... I can't get super good at a job only doing it [a] short amount of time.” (Participant 3, on feeling on abilities before the test session)
- “I was really excited for them to take it [the standardized test] this year....It's still my second year, I wasn't going to be too hard on myself if they didn't do that bad [if the students did poorly on the state test].” (Participant 3, on feeling prepared for this year's testing)
- “I was doing as well as I would have expected myself to do. You know there are always hard moments, but I felt like I was succeeding.” (Participant 4, on feeling on abilities before the test session)
- “For the most part I would say it probably seemed the same, but the students are so tired after their tests...I would prepare a lesson and I would go to teach it and the students just weren't responding in the way they normally would have before the testing session began...I was doing a lot of just reevaluating and almost just revamping my entire lessons on the spot.” (Participant 4, on feeling on abilities once the testing session began)

Though the testing sessions created some stress, the teachers still felt that they were still doing well and could even demonstrate that by adapting to the students' needs on the spot.

Alter Teaching to Teach to Test. Another smaller category within this subtheme was seeing a need to alter their teaching to teach to the test, not to improve the students' overall education. Seven of the eight participants mentioned this smaller category. While some teachers did stress more about the standardized testing and either focused on test preparation more than others before, or saw a need to do more once they received their students' scores, that still did not impact their teacher efficacy. Instead, it led teachers to add more test preparation into their classes, so students would get the education the teachers believed they needed and be prepared for the test, "I thought we've done a really good job preparing them and then I saw the scores and it's really discouraging... next year I'm going to be more proactive about [standardized tests] and start including them in my lessons" (Participant 7). Other teachers, though feeling pressured from the standardized tests and seeing the tests as something the students must perform well on, still did not correlate the students' performance to their lack of ability. Participant 2, who had scheduled a month to review for the standardized test this year before they were cancelled due to the pandemic, and admitted to feeling pressure for their students to perform well on the standardized tests, said, "you have done everything you need to do, it's not in your hands anymore...once I found out who passed, who failed, what the numbers looked like." This statement shows the teachers believed they did everything in their power, and that the score is now a reflection of the student, not the teacher. The teacher states this idea outright when they said,

Sometimes I feel like they [administration] look at it [the test scores] like a number and the percent of how many passed, how many failed, and I feel like it

reflects on you as a teacher, but it shouldn't. What should reflect on you as a teacher is if they've improved or not improved from previous years. (Participant 2)

Though recognizing how raw scores of standardized tests are perceived read by administration, the teachers do not believe scores are a true reflection of their ability, and though they strive to help the students achieve high scores, not achieving those scores does not deflate the teachers' perceived effectiveness.

Subtheme 2

The second subtheme that emerged from the data was the proctoring of the tests and the schedule changes that the testing environment created caused more stress on novice teachers than the scores of the tests. This was mentioned by all eight participants and came from the high-stakes test stress category. Within that subtheme, two smaller categories emerged.

Stress of Proctoring. The first smaller category was the stress produced from the act of proctoring the standardized tests. Though five of the eight teachers talked about reorganizing their teaching to fit more test preparation in, it was the physical act of proctoring the tests and that caused teachers the most stress with all eight mentioning it.

- “I worked for five years to get a masters...so then potentially take it [teaching career] away with one administering of a test if I don't read from a book correctly was very, very hard to think about.” (Participant 1)
- “The first time I proctored a [standardized test] I did not feel like I was prepared at all. Like they showed us this [training] video. We had to sign a

piece of paper and that was really it...And I felt like there should have been more of like...[a] dry run through.” (Participant 2)

- “I was more worried about them taking my license [if a testing irregularity was committed while proctoring, than if the students passed the test].” (Participant 3)
- “I felt like we weren’t given a whole lot of direction as far as what we were actually supposed to do. We were just told a lot of things we weren’t allowed to do.” (Participant 4)
- “I’ve heard the spiel, like, you know, if you screw this up you could lose your license. Teachers have lost their license over things like this [standardized testing irregularities].” (Participant 7)

Not a single interviewee talked about losing their license or their job if students did not perform well on the standardized tests, but four of the eight did specifically mention either fearing, or hearing about, the possibility of losing their teaching license if they did not proctor tests correctly.

Schedule Changes. The second smaller category that emerged from this subtheme was the stress associated with schedule changes during standardized testing time, which was mentioned by all eight participants. The schedule created to execute the test sessions to the state’s specifications caused stress for the teachers:

- “You get pulled to go give other classes their [standardized test], but then your students are still in there [your class] so it’s hard.” (Participant 1)

- “She [the collaborative special education teacher who is supposed to help with students in Participant 1’s class] got pulled for every [standardized test] day for small group testing. And it’s not that I couldn’t handle the kids on my own, but then it was trying to get all of their accommodations on top of me being a new teacher.” (Participant 1)
- “I had things reserved like auditoriums for special rehearsal times for certain grade and I ended up having to go and reshuffle all those because all of a sudden I wasn’t teaching that class at that time I had reserved.” (Participant 4)
- “I would say it probably affects the students a little bit more because any schedule change kind of throws them for a loop.” (Participant 5)
- “There tends to be contention with the schedule [during standardized testing] change because teachers want to make sure that it’s fair for them. And so, like, if it looks like the schedule might be more convenient for one grade level...there can be a lot of pettiness in making sure they get, you know, their time.” (Participant 8)

Five of the eight participants discussed the issue that lunch and elective schedules were moved to give students uninterrupted time to finish testing without worrying about missing lunch and to give students a break at the end of the day. However, these changes ripple through the school and impact even those not testing. One elective teacher even felt taken advantage of because their classes are viewed as a fun break for the kids and not a subject that needs to be seriously studied or practiced by administration (Participant 4). Even though this teacher is not responsible for a standardized test, the schedule

changes associated with those tests made that teacher feel as if their subject did not matter to administration, which caused bitter feelings.

Complementary Findings

Results of the quantitative and qualitative data analysis were complementary. The quantitative data showed no correlation between the self-efficacy of a teacher and their high-stakes test stress. This was complimented by the qualitative findings as teachers stated repeatedly that the scores of the tests did not impact their view on their teaching abilities. In addition, the quantitative findings showed that as teachers' perception of school connectedness increased, so did their stress related to high-stakes testing. This finding was supported by the qualitative data that showed that the school environment, not the students' test scores, caused the stress. The uses of these findings will be explored in Chapter 5.

Evidence of Trustworthiness

Credibility

To ensure that the results of the study were credible, I employed complementarity, peer review, and reflexivity. Complementarity is the use of qualitative and quantitative methods to obtain complementary information that paints a more complete picture of the phenomenon (Plano Clark & Ivankova, 2016). This was used to ensure that the data gathered through the quantitative instruments (ETSI and TSWQ) aligned with what the participants disclosed in their interviews and that no other factors are influenced their responses. The results of this study were peer reviewed by my dissertation committee.

The committee is there to ensure that the results were obtained without bias and presented appropriately.

In the case of reflexivity, or reflecting on and minimizing the impact of the researcher's bias (Creswell & Creswell, 2017), I was able to help check the impact of my bias by first alerting potential participants of my personal role in the county through both the invite to the study and the online information sessions. This told potential participants of my history and helped inform them if they wanted to continue with the study. In addition, the interviews were conducted via the phone so that participants could not see my reactions to answers and perceiving they answered a question "correctly". During the interview, I maintained a steady voice and responded with the same phrases that encouraged participants to continue talking but did not show if I agreed or disagreed with their comments.

To continue with the concept of reflexivity, I would like to alert the reader to her personal biases she had going into this study and what outcomes she thought she would find. To begin with, I did think that a relationship between high-stakes test stress would be related to the well-being of a teacher. This bias comes from years of watching teachers become agitated by standardized testing and reacting poorly when their scores were not where they thought they should be. In addition, I did think there would be a link between a high-stakes test stress and a teacher's desire to leave their current school. This bias comes from seeing many teachers complain about how schools tend to stop and focus on standardized testing for weeks at a time, putting actual learning on the back burner. I thought that this blatant disregard for the teacher's ability to continue teaching students

during standardized testing sessions may wear on teachers and cause them to look for a school whose testing environment is less intrusive. Recognizing my inherent biases was important as she was diligent in not allowing them to come out in conversations.

Transferability

To ensure that the data of this study is transferable, a thick description was given. This study contains a very detailed description of the setting and the participants so that others may deem if the results could be transferred to their populations (Anney, 2014). In addition, the study also gives a very detailed layout of how the study was conducted, from how participants were recruited to how long the phone interviews lasted, and how the results were analyzed, both quantitative and qualitative, so that the study can be properly replicated.

Dependability

To ensure the results of this study are dependable, the code-recode strategy was used. I first coded the qualitative data (see the Qualitative Analysis section of this chapter) and then roughly a week later, I recoded the data (Anney, 2014). This strategy led to the combination several codes into one more encompassing code and streamlined the overall number of codes. An external reviewer was then be asked to review my findings to ensure bias did not taint the findings. Since no identifying information was given to the reviewer, who is also her chair, I did not have the external reviewer sign a confidentiality agreement.

Confirmability

The external reviewer strategy used for dependability was also utilized to ensure confirmability, or the ability for the results of the data analysis to be confirmed by an outside reviewer (Baxter & Eyles, 1997). By first coding the qualitative data and then going back to it later to recode the data, results of which are presented in the Qualitative Analysis section of this chapter, I was better able to group similar ideas, and then look for themes within those ideas. Then by having her chair review her results as an external reviewer and coming to the same conclusions, other researchers viewing this work can feel confident in the results presented. Again, as stated in the previous section, since no identifying information was given to the external reviewer, I did not have the external reviewer sign a confidentiality agreement.

Summary

In this chapter I discussed the results from the conducted study. For the first research question, which require quantitative data to answer, “How does the high stakes test stress of teachers, as measured by the Educator Test Stress Inventory (ETSI), relate to their perceived well-being, as measured by the Teacher Subjective Well-being Questionnaire (TSWQ), and their desire to potentially leave their school or the profession?,” a correlation was found between three of the eight correlations run; however, this was not enough to show that the teacher test stress impacts a teacher’s well-being and their desire to leave their school or the profession. Because of this, this research failed to reject the null hypothesis. The second research question, which required the use of qualitative data to answer, was: What are novice teachers’ perceptions of how

the environment created by high-stakes testing has influenced their well-being? The themes that developed from the coding process on the interviews that answered this question were: (a) teacher self-efficacy was set before standardized testing began and was not impacted by the tests; and (b) the proctoring of the tests and the schedule changes that the testing environment created caused more stress on novice teachers than the scores of the tests. In the next and final chapter, I discuss the conclusions and recommendations of this study.

Chapter 5: Discussion, Conclusions, and Recommendations

The purpose of this concurrent complementarity mixed-methods study was to investigate the relationship between teacher stress caused by high-stakes testing, the well-being of novice teachers, and their intent to leave teaching in a mid-Atlantic school district. I also sought to determine whether that relationship complemented the teachers' perceptions. This study was conducted to address the lack of knowledge regarding whether high-stakes test stress negatively impacts the well-being of novice teachers and whether this leads to their intent to leave their current school or the profession. The results of the quantitative analysis showed that as teachers' connectedness to their school increased, their stress associated with high-stakes testing increased. In addition, the quantitative results indicated that as teacher self-efficacy decreased, the desire to leave the profession increased, and as teachers' feeling of school connectedness increased, their desire to leave their school increased. The qualitative findings indicated that although the high-stakes tests produced stress and the more connected teachers were to their school the more stress they felt, the high-stakes tests themselves did not impact the teachers' perceptions of their teaching efficacy or their desire to leave the school or profession. In this chapter, the following sections are covered: (a) interpretation of findings, (b) limitations of the study, (c) recommendations, and (d) conclusion.

Interpretation of the Findings

The findings of this study focused on school connectedness, which was defined as feeling that they are supported by and can relate to others at their school (see Renshaw et al., 2015), a facet of a teacher's well-being. The results of the quantitative analysis

showed that as a teacher's connectedness to their school increased, their stress associated with high-stakes testing increased. This finding was supported by teachers' interviews when they talked about how they were worried about how their colleagues would react:

- "I think it's just everyone in general expects that your kids are going to do awesome and pass and that's what I expect too" (Participant 2)
- "It's the pressure kind of feels like, Oh my, like this lady or this guy if going to think that like, they're just going...if my kids do poorly on this, is just going to confirm to them like [other teachers]...I'm not that good of a teacher." (Participant 3)

However, as stated in Chapter 2, one positive impact of school connectedness stems from the relationships associated with it. When teachers receive help, advice, backing, and acceptance from their colleagues, it positively influences their self-efficacy and job satisfaction (Aldridge & Fraser, 2016). Participant 5 expressed how the support of their colleagues this year made for a better teaching experience than the year before: "And I will say this year was better because I'm just...plugging into them [teachers in neighboring rooms who teach the same content], I think they knew more what questions to ask and shake loose that data."

Though being more connected was associated with more stress as it related to high-stakes testing, this was not something that was off-putting to the teachers.

Participants 1, 2, 3, 5, and 7 discussed how they were excited and not afraid to see their test scores even though they all expressed stress and anxiety about some portion of the

testing experience. The teachers wanted to do well because they had a strong connection to their colleagues and school. Participant 5 expressed this the clearest:

Well I mean it was obvious to me that social studies [the subject they taught the year before] in general nobody...they didn't really care about [it]. So, there's...less pressure, but...there was no support, I was operating alone and unafraid. In English side you have our reading specialist to again shake loose that data and give us kind of useful information beforehand. So social studies less pressure from above but fewer resources...I prefer this year teaching English.

It is easy to see from these findings how something like the Atlanta schools cheating scandal mentioned in Chapter 2 could occur. Not only do teachers feel pressure from administration, but the more connected they feel to their school, the more they fear letting the school down during standardized testing and the more they may be willing to do to see the school succeed. When policymakers start tying jobs and bonuses to these test scores, that only bolsters the teachers' resolve to do whatever is necessary to help the school succeed.

The most surprising finding of this study was that as the teachers' feeling of school connectedness increased, their desire to leave their school increased. This finding was surprising because, as stated in Chapter 2, school connectedness positively influences teachers' job satisfaction (Aldridge & Fraser, 2016). Job satisfaction has been negatively correlated with teacher burnout (Capri & Guler, 2018), and teacher burnout has been linked to teacher attrition (Lavian, 2012). The finding in the current study was

surprising because I expected that increased school connectedness would be associated with increased desire to stay at the school, not the desire to leave it.

The only finding of this study that was not linked to school connectedness was that as teacher-efficacy decreased, the desire to leave the profession increased. As stated in Chapter 2, a teacher's self-efficacy can mediate stress leading to burnout (Yu et al., 2015). This is important because teaching is a stressful job (Newberry & Allsop, 2017) and stress can lead to teacher attrition (Skaalvik & Skaalvik, 2016). The teachers in the current study never showed that the high-stakes tests had any impact on their teacher-efficacy. Their teacher-efficacy was instead something that was set before the tests began and could not be changed by the score of a test, given one time at the end of the school year. Participant 6, a first-year teacher who started midway through the school year and was given a difficult class, said it clearest:

I have natural abilities as a teacher, but I have yet to gain the skill that I know I will get. So, I know I have some growth potential that I am working on, but...I am a good teacher. Will I be a good teacher? The answer is absolutely, yes.

Though Participant 6 did not feel adequately trained for the testing sessions and how to deal with all the changes, the tests themselves did not impact their teacher-efficacy; they saw the two ideas as mutually exclusive with one having no impact on the other. This suggests that efficacy issues may be detected before testing begins.

Though the results of this study showed a correlation between teacher test stress related to high-stakes testing and the school connectedness aspect of their well-being, findings did not indicate that high-stakes test stress was related to teachers' overall well-

being. The teachers' interview responses showed that their teacher-efficacy was well established and was not impacted by the high-stakes testing. Though stress was felt from the tests, it was not detrimental to the teachers' overall well-being. The only aspect of the high-stakes testing experience that worried the teachers was the possibility of losing their teaching license if they made an error while proctoring the test (Participants 1, 3, and 7). This finding aligns with Thibodeaux et al.'s (2015) finding that teachers felt that policymakers not only placed a lot on teachers, they also felt that what was being required was not reasonable. Teachers in the current study were afraid of the state stepping in and taking their license if they experienced a testing irregularity (a consequence that seemed to be overly harsh in the eyes of the teachers) but had minimal concern as to how their students would perform on the tests. Interview participants felt that they were good teachers with a need for improvement, but they received subpar training from their district and immense pressure to proctor high-stakes tests in the physical manner.

Limitations of the Study

As stated in Chapter 1, there were some limitations to this study. First, though the research uses a valid instrument for measuring stress as it relates to high-stakes testing, the stress levels of the novice teachers could be attributed to other factors during the study. Though the study tried to account for these other influences by interviewing participants, this could have affected the results of the study. Another limitation stated in Chapter 1 was my familiarity with the district in which the study was conducted. Not only have I been employed by the district for the last five years, but she has also worked

within four of the schools that were to be the focus of the study. Though this familiarity granted me the access to the teachers it could have also, potentially, impacted the teachers' responses. I identified myself as a math specialist for the county, that could be the reason the largest group who responded to the surveys were math teachers. It is possible that those who saw my title in the district may have thought the research would not have applied to them, even though invitations and presentations made it clear that the study wanted to hear from teachers of all subjects. Having a higher concentration of math teachers over all other teachers could make the results less generalizable to the wider population.

In addition to these limitations, the outbreak and shut down of schools because of COVID-19 cut the school year short and cancelled the second round of high-stakes testing. As stated in Chapter 4, when the study was approved by the district, everyone at central office was working remotely and was scrambling to figure out how to conduct school during the closure. This led to some confusion and the list of potential participants given to me included the contact information of people who did not qualify for the study. Though I worked to correct this issue, the final participant list still included teachers who did not qualify for the study, which raises the question if potential participants were left off the list as well. So, the final selection of 100 participants may not have been drawn from all potential participants in the county.

The final issue created by the COVID-19 Pandemic is that the high-stakes tests scheduled for April and May were cancelled for the entire state for the 2019-2020 school year. With the uncertainty of how long the pandemic would last, there is no way of

knowing if all the high-stakes tests for the 2020-2021 school year may also be cancelled. It was decided to continue on with the research study during the current crisis because: (a) all middle schools in the district had at least participated in the eighth grade writing high-stakes test (something that happens earlier in the school year due to its lengthy grading process) so teachers could draw on that experience if needed; and (b) the district's strict policy that no research studies be conducted from May-September meant that some (if not all) middle schools may not have been in the physical act of administering or preparing for any high-stakes tests at the time the study had to be conducted, so those teachers would have had to pull from either the writing test experience or previous experiences anyway. Although the eighth grade writing scores, as determined by the state, were not counted in the evaluations of schools because not all students who needed to had completed it and those who could retake it would not have the opportunity, this decision was not made until after the COVID-19 Pandemic closed the schools for the year, meaning the normal stress associated with the high-stakes test was still present during its administration. However, with 20% of those surveyed being in their first year of teaching, they did not have the experience of a full year's high-stakes testing experience and that fact could have impacted their responses.

Another limitation of this study is that it only focuses on the participants thoughts on leaving their school or the profession before the start of the next school year. Participants may have had plans to leave their school or the profession in the future, but this study just focused on the teacher's immediate thoughts on leaving. Participants could have been planning on leaving at the end of current school year for a while or they could

have plans to leave soon, but these intentions were not pursued by myself. This area could have been explored more in the qualitative questioning portion, but it was believed that since I am an employee of the district, participants may have been hesitant to answer direct questions from me about their personal plans for leaving honestly. Participants premade plans to leave may have affected the results of this study.

Finally, the location and scope of this study does limit the generalizability of the findings. With the study being conducted in one school district in one mid-Atlantic state, the findings generalizability would be limited to districts of similar demographics. In addition, only 25 of the 100 teachers invited, participated in the surveys. This makes for a lower confidence interval with a wider margin of error and a study with more participants would need to be conducted to see if the findings fell into the more traditionally sought 95% confidence interval.

Recommendations

There are several recommendations for future studies that have emerged from this study. As stated in the limitations section of this chapter, one recommendation for future research would be to conduct this study again in a similar school district, but with more participants to see if the results would be the same with a higher confidence interval and a smaller margin of error. However, the Educator Test Stress Inventory (ETSI) total and the Teacher Subjective Well-being Questionnaire (TSWQ) school connectedness subscale total the significance level was $p < .05$, making it significant at the 95% confidence interval. For this finding, future research should see if this result could be replicated in other school districts across the county. In addition, since there was a significant

correlation (though at a lower confidence level) between school connectedness and a teacher considering leaving their current school, qualitative research in conjunction with the quantitative piece, should be conducted to see if a reason for the correlation can be obtained.

A second recommendation for future research is to see what impact the act of proctoring high-stakes tests are having on novice teachers. Many teachers in this study expressed concern over losing their job if they made an error while proctoring and how under-trained they felt for their first proctoring experience. In addition, future research should look at how this impact evolves over the course of a teacher's career to see what needs to, or can, be done to improve this experience.

A third recommendation for future research is to ask more questions about the teacher's past and present plans for staying at their current school and in the profession. This study did not delve into these areas as it was believed I was too close to the organization for the participants to feel comfortable answering honestly. Future research should explore novice teachers' premade intentions for staying in their school or the profession and compare those findings to those in this study.

Finally, future research should compare the high-stakes test stress of novice teachers to veteran teachers. This study found that the more connected a teacher felt to their school, the more test stress they had. Future research should look to see if veterans have a higher overall stress level as it relates to high-stakes testing and see if this associated with the correlation of novice teachers increased test stress with increased school connectedness.

Implications

It is clear from the interviews with teachers, that novice teachers need better training when it comes to proctoring high-stakes test sessions. All of those interviewed described some sort of stress as it related to proctoring the tests or how unprepared they felt for something that carried great consequences if implemented incorrectly. Fear is no way to encourage the correct implementation of anything and if administrators and policy makers do not want unnecessary stress passed from teacher to student during the testing process, then better preparation needs to be planned for novice teachers. As stated several times in this study, teaching is a very stressful profession (Newberry & Allsop, 2017) and adding undo stress to teachers, especially those already at-risk of leaving the profession like novice teachers, is not conducive to convincing them to stay in the profession. The teachers in this study wanted more guidance and training from their administrators, but instead were met with quick over views and fear tactics. This is not how we should be treating those who are educating our future leaders. Instead we need to listen to their concerns and then shape our resources around what they need rather than the current system of giving them what we have and hoping they can adapt. Adapting to the needs of our teachers is exactly the social change the U.S. educational system needs. Public school teachers are expected to change their instruction to meet the needs of all of their students and in order for them to be able to do that, the educational system needs to change to meet the needs of the teachers.

Conclusions

In this study, a group of teachers who are considered most at risk of leaving their current school or the field of education was analyzed. The analysis consisted of looking at what impact, if any, the stress associated with high-stakes testing was having on the well-being of this group and their possible intentions of leaving their school or the profession. Then the analysis turned to see if the teachers' personal accounts reinforced the quantitative data. What was found was that these teachers are experiencing stress as it relates to high-stakes testing, but most of that stress comes from the implementation of the tests and not their scores. This finding is an echo of what teachers have been saying for years, "We need more support". High-stakes tests are a part of the American educational system, teachers may not agree with them, but they accept that they are a part of the system and are not likely to go anywhere any time soon. What teachers do not accept is the systems inability to prepare them properly for anything new that they are asked to perform. Quick trainings followed by threats of serious consequences and leaving novice teachers in a position to succeed or fail with little support does not help encourage novice teachers in remaining at their current school or as an educator. The teachers in this study discussed reaching out to those colleagues around them for help but mentioned that administrators needed to do more in setting up and providing training to ensure retention of educators. The findings showed that those who felt more connected to their school felt a higher level of stress related to high-stakes testing. It was clear that teachers wanted to do well and support their school and district with outstanding test results, but that the overall system was not providing them with tools to ensure success. It

is time that our educational system stops throwing mandates at teachers and expecting them to implement them with little to no support. This study shows that one of the easiest ways in which the educational system can help novice teachers is by giving them the training and support necessary to administer high-stakes tests that they are mandated by law to proctor.

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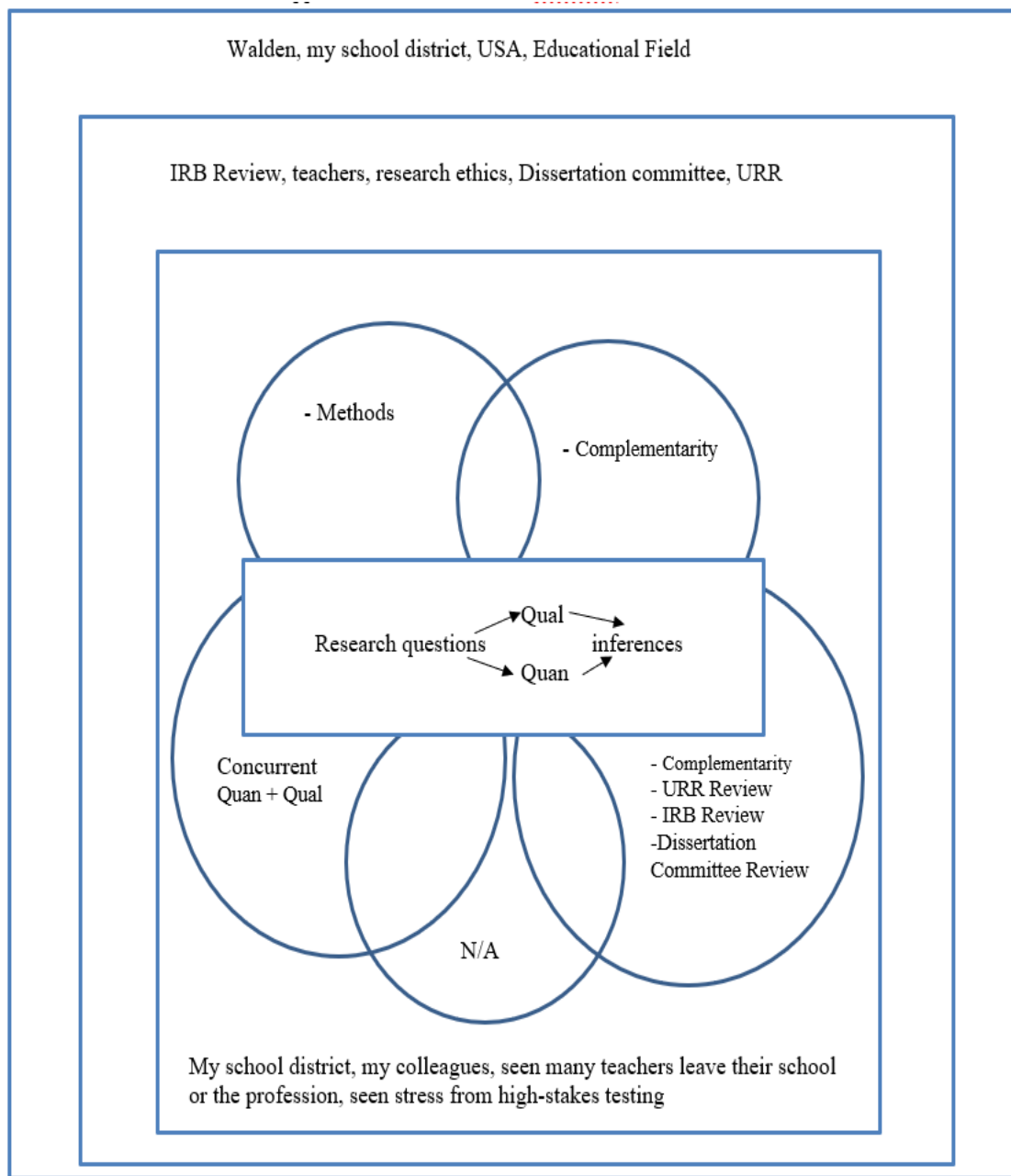
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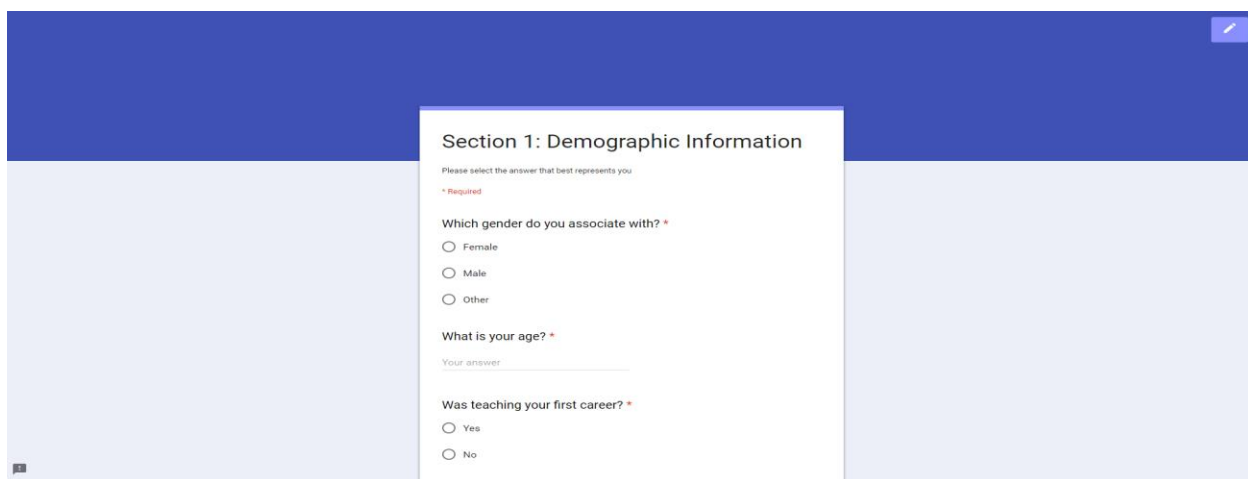
Appendix A: Plano Clark & Ivankova Framework



Appendix B: Phone Interview Questions Used to Answer Research Question 2

1. Has there been any changes in the school since this testing session began? If so, what is that change/were those changes? How did it/they impact you? Who(m) was the main driving force in these changes?
2. How does the [state standardized] testing environment in this school make you feel?
3. Do you feel you were adequately prepared for this current testing session? Why or why not
4. How did you perceive your abilities as a teacher before the current [state standardized] session began? How do perceive them now that it has begun?
5. Did you feel pressure/urgency to perform well on the [state standardized] test before the current testing session began? If so, from who did you feel this pressure/urgency? What were they concerned with?
6. Do you feel pressure/urgency to perform well on the [state standardized] test now that testing has begun? If so, from who did you feel this pressure/urgency? What are they concerned with?

Appendix C: Screen Shots of the Google Form Used to Distribute the Survey



Section 1: Demographic Information

Please select the answer that best represents you

* Required

Which gender do you associate with? *

Female

Male

Other

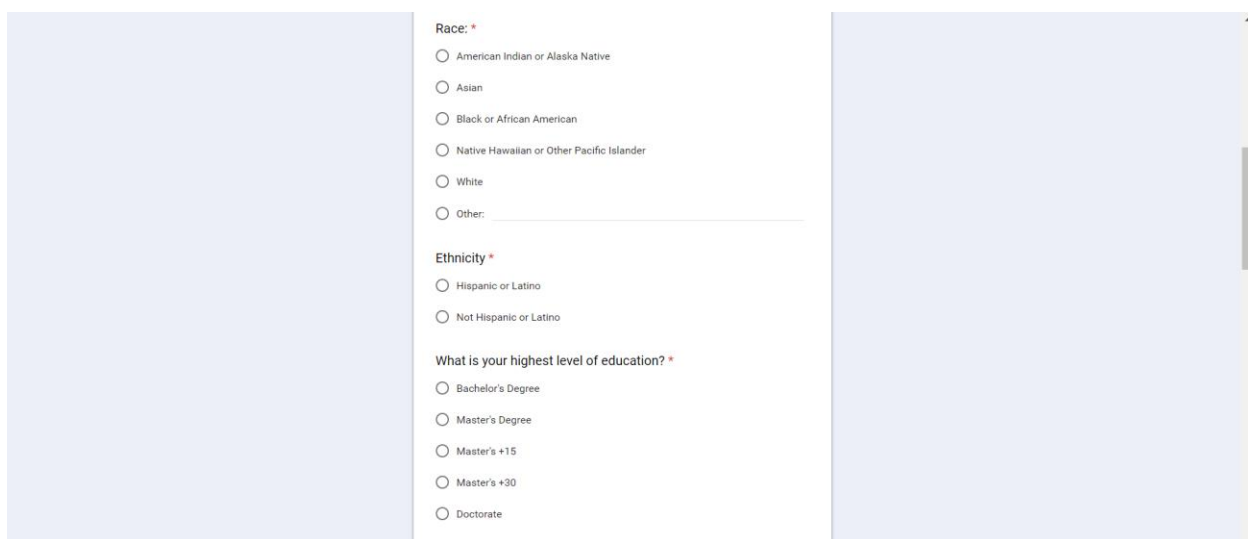
What is your age? *

Your answer

Was teaching your first career? *

Yes

No



Race: *

American Indian or Alaska Native

Asian

Black or African American

Native Hawaiian or Other Pacific Islander

White

Other: _____

Ethnicity *

Hispanic or Latino

Not Hispanic or Latino

What is your highest level of education? *

Bachelor's Degree

Master's Degree

Master's +15

Master's +30

Doctorate

Is your license for teaching in Virginia provisional? *

Yes

No

What grade(s) do you teach? (select all that apply) *

6th

7th

8th

What subject(s) do you teach? (Select all that apply) *

Math

Social Studies

Science

English

Orchestra

Band

Chorus

FACS

Art

Tech Ed

Other: _____

Are you responsible for an SOL test? *

Yes

No

In what year of teaching are you currently in? *

This is my first year of teaching

This is my second year of teaching

This is my third year of teaching

This is my fourth year of teaching

This is my fifth year of teaching

Are you considering leaving your current school before the next school year begins? *

Yes

No

Maybe

Are you considering leaving your the field of teaching before the next school year begins? *

Yes

No

Maybe

NEXT

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Section 1: Demographic Information

* Required

Section 2: Experiences with Standardized Testing.

Read each sentence and choose the one response that best describes you.

Please answer the following questions on a scale of (1) Strongly Disagree, (2) Disagree, (3) Neither Agree nor Disagree, (4) Agree, and (5) Strongly Agree.

I perspire or sweat during standardized test periods. *

1 2 3 4 5

Strongly Disagree Strongly Agree

I feel calm and confident during standardized test periods. *

1 2 3 4 5

Strongly Disagree Strongly Agree

I experience a pounding heart during standardized test periods. *

1 2 3 4 5

Strongly Disagree Strongly Agree

I feel disorganized during the standardized test periods. *

1 2 3 4 5

Strongly Disagree Strongly Agree

My peers say that I am anxious during the standardized test periods. *

1 2 3 4 5

Strongly Disagree Strongly Agree

The school principal says that I am anxious during the standardized test periods. *

1 2 3 4 5

Strongly Disagree Strongly Agree

I feel anxious after standardized testing is complete. *

1 2 3 4 5

Strongly Disagree Strongly Agree

I feel like I am evaluated during standardized testing. *

1 2 3 4 5

Strongly Disagree Strongly Agree

I feel pressure from parents to raise student test scores. *

1 2 3 4 5

Strongly Disagree Strongly Agree

I feel pressure from administrators to raise student test scores. *

1 2 3 4 5

Strongly Disagree Strongly Agree

I feel anxious before standardized testing begins. *

1 2 3 4 5

Strongly Disagree Strongly Agree

I feel anxious before standardized testing begins. *

1 2 3 4 5

Strongly Disagree Strongly Agree

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Section 1: Demographic Information

* Required

Section 3: Experiences as a Teacher.

Read each sentence and choose the one response that best describes you.
Please answer the following questions on a scale of (1) Almost Never, (2) Sometimes, (3) Often, and (4) Almost Always

I feel like I belong at this school. *

1 2 3 4

Almost Never Almost Always

I am a successful teacher. *

1 2 3 4

Almost Never Almost Always

I can really be myself at this school. *

1 2 3 4

Almost Never Almost Always

I am good at helping students learning new things. *

1 2 3 4

Almost Never Almost Always

I am good at helping students learning new things. *

1 2 3 4

Almost Never Almost Always

I feel like people at this school care about me. *

1 2 3 4

Almost Never Almost Always

I have accomplished a lot as a teacher. *

1 2 3 4

Almost Never Almost Always

I am treated with respect at this school. *

1 2 3 4

Almost Never Almost Always

I feel like my teaching is effective and helpful. *

1 2 3 4

Almost Never Almost Always

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Section 4 of 4

Section 4: Next Steps

This concludes the survey portion of this study. The next portion, a short 20-minute phone interview, will be conducted on 8 randomly selected participants who agree to potentially take part in the interview process. Those selected would be contact via email to set up a time to call. Mrs. Baker is aware of how valuable your time is and will adhere to the 20 minute time frame.

Are you willing to take part in a short, 20-minute, phone interview over your experiences from this school year and the current SOL testing window? *

Yes

No