EXPLORING THE INFLUENCE OF HIGH-STAKES TESTING AND
ACCOUNTABILITY ON TEACHERS' PROFESSIONAL IDENTITIES THROUGH
THE FACTORS OF INSTRUCTIONAL PRACTICE, WORK ENVIRONMENT, AND
TEACHER EFFICACY

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DEDICATION

To my husband, Rick: You challenged me to reach this goal many years ago. I cannot thank you enough for your support, your encouragement, and your love. You see things in me that I don't see in myself. I want to be the person you see in me.

To my daughter, Meredith: Don't ever believe any dream is beyond your attainment. You are my proof. Most of all, you are my inspiration in all that I do. Thank you for your love and support throughout this journey.

This work could not have been accomplished without your love, your support and your sacrifice. I love you both more than words can express. This work is dedicated to you.

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LIST OF ABBREVIATIONS

AYP   Adequate Yearly Progress
EOC   End-of-Course test
IEP   Individualized Education Plan
NCDPI   North Carolina Department of Instruction
NCLB   The No Child Left Behind Act of 2001
OCS   Occupational Course of Study
SCOS   Standard Course of Study
USED   United States Department of Education

ABSTRACT

EXPLORING THE INFLUENCE OF HIGH-STAKES TESTING AND
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The purpose of this study was to explore the impact of high-stakes testing and accountability on teachers' perceptions of their professional identities. Teachers' instructional practice, work environments, and personal factors are now immersed in the context of high-stakes testing and accountability. This context colors the decisions teachers make about instructional practice, the degree to which they collaborate with colleagues, and their emotions. Through a symbolic interactionist lens, this study explored how teachers give meaning to the influence of high-stakes testing.

This qualitative study employed a semi-structured interview format to gather data from 11 Algebra I teachers in North Carolina on their perceptions of their professional identities. A conceptual framework based upon Bandura's social cognitive theory provided the foundation for exploring how teachers' instructional practice, work environment and teacher efficacy interacted and how these factors shaped teachers' professional identities. Context and demographic data were gathered through a questionnaire and the North Carolina School report cards. Based on interview data, researcher logs, and analytic memos, a vignette was developed about each teacher to

explore the interactions of the teacher's instructional practice, work environment, and teacher efficacy.

This study found most teachers relied heavily on direct instruction for reasons they attributed to high-stakes testing and accountability pressures, even when they believed other methods were better for their students. Related to this finding is the potential narrowing of teachers' role and purpose in their work as the influence of high-stakes testing and accountability interacts with their professional identities through their instructional practice, work environment, and teacher efficacy.

Teachers expressed their professional identities in ways that positioned their identities in a student focus, or a teacher focus, whether peer or self. There appeared to be a relationship between whether teachers taught prior to the implementation of the NC ABCs and NCLB and the influence of this context on their professional identities. The teachers who expressed their professional identities in a student focus exhibited high perceptions of their teacher efficacy. Also, teachers' professional identities themselves mediated the way teachers experienced the influence of high-stakes testing and accountability.

Principals and their actions influenced the way teachers constructed their professional identities. Of the teachers who reported principals as the primary source of the high EOC emphasis in their schools, four of the five teachers positioned their professional identities in a strong teacher focus. Principals played a primary role in the ways that teachers experienced and interacted with the context of high-stakes testing and accountability within their schools. The actions of the principals, both explicit and implicit, were a cogent influence in the construction of teachers' professional identities.

CHAPTER 1: INTRODUCTION

Teachers' perceptions of themselves and their professional identities are often intertwined, are connected to their beliefs and feelings, and have been shaped by their environment (Kelchtermans, 1996; Nias, 1996). Some teachers believe they were destined to teach, referring to their chosen profession as a calling, or a gift. Many teachers entered the field of education because they wanted to make a positive difference in the lives of their students. For others, it was the career that made sense at that point in their lives (Andrews & Hatch, 2002; Buskist, Benson, & Sikorski, 2005; Younger, Brindley, Pedder & Hagger, 2004).

Teachers' professional identities, or who they are as teachers, are malleable and dynamic, capable of changing as teachers mature in the profession and as the nature of teachers' work changes (Hargreaves, 2005). Teachers' work is now immersed in the context of high-stakes testing and accountability, a primary component of educational reform. Education policymakers have promoted the use of high-stakes testing and accountability as a method of improving student achievement (Heubert & Hauser, 1999; Popham, 2001), largely through an attempt to improve the teaching force (Rosenholtz, 1987). The No Child Left Behind Act of 2001 (NCLB), requiring annual testing, sharpened the nation's focus on raising student achievement. Prior to the enactment of NCLB, many states had begun to implement their own accountability systems.

As high-stakes tests and accountability systems have permeated and shaped the world of education, the work lives of teachers have been impacted. In the current environment of increased teacher accountability, teachers' experiences and their

responses to these experiences can influence how teachers feel about themselves as teachers, or how they perceive their professional identity (van Veen, Sleegers, & van de Ven, 2005).

According to Anders and Richardson (1992), it is commonly accepted that beliefs about testing and accountability shape teachers' practice. "We have now come to realize that a culture of testing permeates schools and classrooms to such an extent that teachers seemingly have great difficulty considering instruction and the improvement of instruction separately from outcome measures for purposes of accountability" (p. 383).

If the influence of testing is so consistent and pervasive in its shaping effect on teachers, to what extent does this era of high-stakes testing and accountability impact teachers' perceptions of their professional identities, or who they are as teachers? This study explores the influence of a high-stakes testing and accountability program on teachers and their professional identities through the voices of practicing teachers.

<div align="center">Statement of the Problem</div>

The movement toward high-stakes testing as educational reform spread throughout the United States during the past two decades. The implementation of NCLB has increased the focus on high-stakes testing and accountability by requiring states to adopt standards and implement tests to measure student achievement. In addition to examining the student achievement data now available as a result of the implementation of NCLB, it is important to examine teachers' responses and actions related to accountability programs (Brown, 1993; Cimbricz, 2002; Hamilton, Berends, & Stecher, 2005; Rex & Nelson, 2004; Rosenholtz, 1987). These responses and actions will

influence whether the implementation of accountability systems yield the intended outcomes or other undesired outcomes (Hamilton & Stecher, 2006).

The reported outcomes of high-stakes testing and accountability are numerous and diverse. Opponents of the focus on testing and accountability believe it has been deleterious to teaching and learning (Popham, 2001). Some charge that teachers now teach to the test, spend excessive class time on test preparation exercises, and place too much emphasis on standardized multiple-choice assessments (Barksdale-Ladd & Thomas, 2000). In contrast, other research points to the beneficial outcomes of testing, such as improved professional development and increased student achievement (Cizek, 2001). Additionally, an increase in student-centered pedagogies, expansion of curricular content, and knowledge integration are other reported positive outcomes of specific types of high-stakes tests (Au, 2007).

In response to the increased pressure teachers feel to raise student test scores, many teachers find themselves engaging in practices they believe are detrimental to students. Barrett (2009) found teachers at all career stages experienced tensions between their internal beliefs and commitments and the external demands placed upon them as a result of the current environment of high-stakes testing, namely NCLB. Teachers' years of experience, or career stage, may also influence how teachers respond to the tensions they experience as a result of the current environment. Teachers who have been trained to used research-based best instructional practices experience conflicting feelings when they use more teacher-focused instructional methods, such as lectures, in an effort to raise test scores instead of what they believe are better instructional methods (Lasky, 2005; Mathison & Freeman, 2003). Booher-Jennings (2005) described the practice of

educational triage, a classification of students by their teachers based upon a perceived

ability to achieve certain test scores, or whether they will be included in accountability

data for the teachers or their schools. The allocation of resources such as one-on-one

tutoring or small-group instruction is based upon these classifications. Students deemed

most unlikely to pass the tests are denied these resources so they can be provided to

students who are more likely to pass, leaving these lower-achieving students further

behind than ever before (Booher-Jennings, 2005). The resulting moral conflict teachers

experience in these situations may shape how they feel about themselves as teachers, or

how they perceive their professional identity.

   Teachers' professional environments have also been influenced by this increased

focus on testing. Positive impacts on teachers' environments include increased

collaboration (Grant, 2000) and an increased focus on the curriculum (Yeh, 2006). Less

desirable outcomes of increased pressure (Berry et al., 2003), conflict over teaching

assignments (Pedulla et al., 2003), and lower morale (Hess & Brigham, 2000) in the work

environment as a result of high-stakes testing are well documented in the research.

   For public school teachers, the work environment extends beyond their

classrooms and schools and into the local community. How the local community views

its teachers and schools, particularly how well the public believes educators are meeting

their obligation to prepare students academically, can impact the school environment. In

this age of high-stakes testing and accountability, the responsibility for student academic

achievement seems to be placed largely upon teachers. The emphasis on test scores in the

media has impacted the public's opinion of the value of our schools and our teachers

(Barksdale-Ladd & Thomas, 2000; Smith, 1991). The public reporting of test data and

references to failing schools and mediocre teachers can have a detrimental effect on how teachers feel about themselves as teachers (Grant, 2000). It is possible that teachers in different work environments, or school settings, may experience the influence of high-stakes testing and accountability in different ways.

Teachers' instructional practice, work environments, and personal factors are now immersed in the context of high-stakes testing and accountability. This context colors the decisions teachers make about instructional strategies and content, the degree to which they collaborate with colleagues, and their emotions. Given the influence of high-stakes testing and accountability on teachers' work lives, it must be explored as a cogent factor in shaping teachers' professional identities. It is imperative to explore the ways in which teachers give meaning to this influence of high-stakes testing, and how they construct their professional identities within this context.

Conceptual Framework

Through a symbolic interactionist viewpoint, this study will explore how teachers make meaning of their professional identity, or who they are as teachers, in an era of high-stakes testing. Symbolic interactionism holds that human beings act toward things depending upon the meanings the objects hold for them (Blumer, 1969). Objects are anything that can be indicated, such as a physical object like a table, a social object like a teacher, or an abstract object like an identity. Secondly, meanings are social products formed in and through the social interactions of human beings, which they use through an interpretive process. This interpretation is more than an application of established meanings; it is a formative process that uses and revises meanings to guide and form actions.

According to Blumer (1969), humans are objects of their own actions. In other words, we make indications of ourselves to ourselves. Through these self-indications, the human self grows out of the social interaction process in which other people define a person to himself or herself. Likewise, a teacher's professional identity is an object that consists of the meaning that it has for the teacher, the unique indications of the teacher to the teacher. Professional identity then is an object that is defined or formed through an interpretative process involving human interactions. The nature of professional identity, as with any object, consists of the meaning that it holds for the teacher. "This meaning sets the way in which he sees the object, the way in which he is prepared to act toward it, and the way in which he is ready to talk about it" (p. 11).

The conceptual framework for this study incorporates Social Cognitive Theory as the foundation for understanding the interconnectedness of teachers' beliefs, practices, and work environments. This theory is based upon the concept of reciprocal determinism, or that (a) behavior; (b) environmental influences; and (c) personal factors in the form of cognition, affect, and biological events create interactions that result in a triadic reciprocality (Bandura, 1986, 2001).

The study will explore (a) teachers' instructional practice as the *behavior* of interest, (b) teachers' work *environments*, and (c) teachers' perceptions of their teacher efficacy as the *personal* or cognitive factor of interest, in the context of high-stakes testing and accountability. The professional identity of teachers will be explored in the context of the professional self that emerges as teachers make indications to themselves through the interactions of their instructional practice, work environments, and teacher efficacy.

Purpose of this Study and Research Questions

At a time when high-stakes testing is increasing on the state and federal levels, this study explores the impact of high-stakes testing within an accountability system on teachers' perceptions of their professional identities. The conceptual framework provides a foundation for exploring how the three dynamics of teachers' instructional practice, teachers' work environments, and teachers' perceptions of their teaching efficacy relate to one another and what role these factors play in shaping teachers' constructions of their professional identities.

The primary purpose of this study is to explore the influence of high-stakes testing and accountability on teachers' perceptions of their professional identities. To explore this influence, the following research questions are examined:

1. How do teachers view the interactions of their instructional practice, work environment, and teacher efficacy in the context of high-stakes testing and accountability?

2. How do high-stakes testing and accountability influence teachers' professional identities?

3. Do the influences of high-stakes testing and accountability on professional identity vary with teaching experience or school setting?

Significance of this Study

Although high-stakes tests have been a component of educational reform for nearly two decades, the literature on the impact of high-stakes testing on teachers is limited in relation to teachers' perceptions of their professional identities. This study is significant because it provides valuable insight into the influence of high-stakes tests and

accountability on teachers' perceptions of their professional identities. Such insight is useful to policymakers who are concerned with issues relating to teacher job satisfaction, teacher retention, and teachers' professional development needs. As high-stakes testing and accountability increase, different types of support are needed to promote teacher longevity and job satisfaction, constructs that are related to teachers' personal factors.

Teachers' professional identities impact their professional and emotional decisions (O'Connor, 2008). "We learned that what and how teachers teach, even within powerful accountability cultures, is dominated by their own ethical senses of what they should do for their students and who they need to be as a teacher" (Rex & Nelson, 2004, p. 1289). By understanding more fully how educational reforms, such as accountability systems, are implemented at the classroom level, school leaders and policymakers are more able to assist and prepare teachers to work in this context.

This study provides valuable information for teacher development. Teachers' perceptions of their capabilities and teaching efficacy impact instructional decisions and their actions in the classroom. What teachers know and understand about the tests used to measure student achievement influences how instruction is addressed in the classroom. In a study of teachers' perceptions of the impact of high-stakes testing and accountability in Kentucky, results indicated the state tests led to more teacher-focused instructional methods like lecture and worksheets. The researchers recommended further investigation of the nature of high-stakes assessment and its effect on instructional practice (Faulkner & Cook, 2006).

This study explores the influence of high-stakes testing on teachers' work environments. This is significant because the settings in which teachers work have been

shown to affect their instructional choices (Firestone, Monfils, & Schorr, 2004). It is imperative that we understand how teachers respond to increased pressure due to testing in their work environments as their responses have the potential to impact education reform both positively and negatively. If the pressure to succeed becomes too strong, the positive outcomes of high-stakes testing and accountability may be overshadowed by the negative outcomes (Wilson & Corbett, 1991).

Delimitations of the Study

The delimitations of this study include the boundaries of the problem, the sample of the study, and the setting of the study. Additionally, the study is delimited to teachers in one state and one teaching assignment. The impact of accountability may be perceived in different ways by teachers with other teaching assignments and by teachers working in other states.

This study is concerned with the perceptions of practicing Algebra I teachers in one state as to the influence of high-stakes testing and accountability on their perceptions of their professional identities. Relevant to this study are the interconnectedness of the influence of teachers' instructional practice, work environments, and perceptions of their teacher efficacy and how these dynamic constructs interact, and possibly shape, the construction of teachers' professional identities.

Operational Definitions

For the purposes of this study, the researcher has defined the following terms:

1) *Accountability systems* will be used to refer to the systems of learning standards and assessments used to guide instruction, particularly within a state. The

accountability systems impacting teachers in this study are NCLB and the North

Carolina Accountability System.

2) *High-stakes testing* refers to tests that have rewards and/or sanctions for students, teachers, or schools.

3) *Teacher efficacy* will be defined as a teacher's belief in his or her ability to influence student learning, particularly for difficult or unmotivated students (Guskey, 1987).

4) *Teachers' professional identity* is the meaning teachers give to themselves, a professional self that is formed through teachers' interactions with themselves and others.

5) For this study, I defined *teachers' work environments* to include the classroom, school, and district in addition to the larger context of community and public opinion.

<div align="center">Chapter Summary</div>

Chapter 1 provided an introduction to the study, a statement of the problem, and the conceptual framework for the exploration of the concepts. The purpose of this study and the research questions were also stated in this chapter. The significance of the study, delimitations, and operational definitions were also provided.

Chapter 2 will provide a review of the related literature and a more in-depth discussion of the conceptual framework. The need for further research on the topic of the study will also be discussed.

CHAPTER 2: REVIEW OF RELATED LITERATURE

High-stakes testing as educational reform is the first area of focus for this literature review. This discussion will explore what the literature says about the implementation and implications of NCLB. North Carolina's state-mandated testing program, including the state's plan to address the federal requirements of NCLB, will also be addressed. This literature review will explore the interconnectedness of teachers' instructional practice, personal factors, work environment, and the relationship of these three areas of focus to high-stakes testing. Teacher professional identity will also be explored in this review.

High-Stakes Testing as Educational Reform

Policymakers, educators, and the public have increasingly focused more attention on education reform. High-stakes testing and accountability systems have been used as a means to drive curricular and instructional changes in efforts to improve education in many states (Lewis, 2000; Perrault, 2000). The debate is ongoing regarding the efficacy of high-stakes testing as a tool to improve instruction (Stapleman, 2000). Those who view tests with consequences as the only way to higher academic standards stand in sharp contrast to those who believe high-stakes tests unfairly impact minority and disadvantaged students and standardize education (Hurwitz & Hurwitz, 2000). Rural school administrators reported test results were useful in teacher evaluations, motivating to their work, and helpful in determining how to meet the academic needs of their students (Egley & Jones, 2004). The focus on high-stakes testing as a driver in education reform has increased awareness of testing and curriculum issues (Sipple, Killeen, &

Monk, 2004). Most recently, educational reform at the federal level has come in the form of the No Child Left Behind Act of 2001. The following section will provide information on this legislation.

No Child Left Behind Act of 2001

In 2001, the 107th Congress of the United States of America reauthorized the Elementary and Secondary Education Act of 1965 with the stated purpose "To close the achievement gap with accountability, flexibility, and choice, so that no child is left behind." This reauthorization, the No Child Left Behind Act of 2001 (NCLB) is the main federal law that affects K-12 public education in the United States. According to the United States Department of Education (USED), the law is based upon four main principles: (a) stronger accountability for results, (b) more freedom for states and communities, (c) proven educational methods, and (d) more choices for parents.

The overarching goal for student achievement is that all students will perform at grade level in reading and math as defined by their state's accountability system by the end of the 2013 – 2014 school year. NCLB grants each state the freedom to administer its own tests to determine student achievement. This freedom includes the setting of curriculum standards, proficiency scores and subgroup sizes. Because states are allowed to determine the meaning of proficiency, there are differences in where states have set their performance levels. This means a student who is proficient in a subject in one state may not be considered proficient in other states (RAND Education, 2007).

In order to track states' progress toward meeting the goal of 100% of students performing on grade level by 2014, NCLB set incremental target proficiencies for each school year. Adequate Yearly Progress (AYP) is the measure of yearly progress of

students, schools and states toward meeting the proficiency targets (NCDPI, 2009a).

Every state must develop its own targets and rules related to subgroup size in order to

make AYP; plans must be approved by the USED.

School and district performance information must be made available to the

parents and the public. NCLB classifies schools and school systems as making or not

making AYP in an all or nothing model. If just one subgroup in one subject (reading

and/or mathematics) at a school does not meet the targeted proficiency goal, then the

school does not make AYP for that year (NCDPI, 2008).

Schools and districts that are funded under Title I must enter school or district

improvement if AYP targets are not met. For example, if a Title I school does not make

AYP in the same subject for two years in a row, it becomes a School of Choice. This

gives parents the option of transferring to another school within the district with

transportation provided by the district (NCDPI, 2009a). Parents must be informed of

school status, services, and options that may be available to them when schools enter

school improvement.

The implementation of NCLB has proven to be costly for states. The financial

resources necessary to meet the requirements of the act may exceed the additional

funding the states have received (Cicchinelli, Gaddy, Lefkowits, & Miller, 2003).

NCLB in North Carolina

In North Carolina, subgroups must contain a minimum of 40 students to be

included in AYP calculations. Student groups are (a) the school as a whole, (b)

economically disadvantaged students, (c) limited English proficient students, (d) students

with disabilities, (e) African-Americans, (f) Asian/Pacific Islanders, (g) Hispanic, (i)

White, (j) Native American, and (k) Multi-racial students. Schools must make Adequate Yearly Progress (AYP) for each subgroup present in each school (NCDPI, 2009a).

Participation and proficiency in reading and mathematics on the End-of-Grade tests for students in grades 3-8 is used to determine AYP for elementary and middle schools. The USED also requires each state to measure proficiency in science. Students in grades 5 and 8 are administered End-of Grade science tests; however, these scores are not included in AYP calculations ("Changes and Challenges", 2008).

High schools must also measure and report AYP for students in grade 10. In the fall of 2004, the USED approved the use of Algebra I to meet the mathematics test requirement of NCLB (J. O. Davis & L. M. Fabrizio, personal communication, January 4, 2007). The Biology EOC was approved by the USED for use as the high school science component. A combination of English I and the North Carolina Writing Assessment at Grade 10 was approved to meet the reading requirement. Students in grade 10 without an Algebra I and/or English I score were administered the North Carolina High School Comprehensive Test of Reading and Mathematics to determine proficiency for AYP. After the North Carolina State Board of Education adopted exit standards that required every student to take Algebra I and English I to graduate, North Carolina began to phase out the use of the North Carolina High School Comprehensive Tests of Reading and Mathematics in 2005 (NCDPI, 2009a). A small percentage of NC students identified as Exceptional Children (EC) follow the Occupational Course of Study (OCS) to earn a high school diploma. The NCEXTEND2 OCS assessments were used to assess students following this course of study that is only available to students through a decision of their Individualized Education Plan (IEP) team.

The North Carolina ABCs of Education

Before the federal mandate of NCLB, North Carolina had a state accountability plan. This section will provide information specific to the North Carolina Accountability plan and its current implementation under the federal guidelines of NCLB.

In the 1996-1997 school year, the new ABCs of Public Education was implemented for all North Carolina K-8 schools. This plan focused on strong accountability, emphasis on the basics with high educational standards, and maximum local control. Designed to measure the performance of individual public schools by assessing student performance on annual tests that measure both growth and proficiency, this plan rewarded staff in schools that achieved expected or high growth status with financial rewards (NCDPI, 2009c). The high school model of the ABCs was implemented in the following school year although many modifications would follow over the years as the ABCs plan was adapted.

Under the North Carolina accountability program, as in many other states, schools are labeled by student performance. Schools may be classified as Schools of Excellence, Schools of Distinction, Schools of Progress, and Priority Schools. Test data are made public through the North Carolina School Report Cards available on the North Carolina Department of Public Instruction website (http://www.ncreportcards.org/src/). The emphasis on the school labels was intended to motivate teachers and schools to perform at higher levels, at least in part to avoid negative public scrutiny (Jones et al., 1999).

Each student in grades 3-8 must be assessed annually in reading and mathematics. North Carolina's students must be assessed in writing three times during the K-12 grade span. These assessments occur at grades 4, 7, and 10. In compliance with NCLB, North

Carolina administers a science test to students at grades 5 and 8. Currently, the results of these tests must be reported to the public, but are not included in determining AYP for NCLB or in determining school status under the ABCs.

At the time of the study, high school students were required to take End-of-Course (EOC) examinations in English I, Algebra I, Geometry, Algebra II, Civics and Economics, U.S. History, Physical Science, and Biology. These examinations were intended to measure student's understanding of the state standards for each subject and must count as 25% of the student's overall course grade. Additionally, for students entering high school in the 2006-2007 school year and beyond, North Carolina graduation exit standards included five high school courses in which a student must achieve proficiency on the EOC. These required exit standard courses are English I, Algebra I, United States History, Civics and Economics, and Biology. The state defined student proficiency on an End-of-Course examination as scoring Level III (with one standard error of measurement) or Level IV (NCDPI, 2009a). For schools, performance level was based upon the percent of students scoring at or above Achievement Level III. The use of one standard error of measurement that applied to student accountability did not apply to schools.

<center>Impact of High-Stakes Testing on Teachers and Teaching</center>

A considerable amount of research has been conducted on high-stakes testing. Research indicates the implementation of high-stakes testing within state accountability systems has affected teachers' instructional practice, their work environments, and teachers' personal factors (Agee, 2004; Barksdale-Ladd & Thomas, 2000; Horn, 2003; McNeil & Valenzuela, 2000). Teachers' experiences and responses to accountability

policies are unique, unpredictable, and multi-dimensional. Accountability has both positive and negative effects on the quality and equity of teachers' instructional practice. Teachers' understanding of accountability policies often occurs through translation by their school leader and this may alter the meaning and significance of the policies (Sloan, 2006).

Research has shown that teachers perceive their responses to testing in different ways (Cimbricz, 2002). The same reported impacts of testing are perceived as positive by some teachers and negative by other teachers. One such example is narrowing of the curriculum. Many teachers perceived this impact as a negative; still other teachers viewed narrowing of the curriculum as a positive result, yielding a more focused curriculum that was aligned to state standards (Hess & Brigham, 2000; Sipple et al., 2004; Yeh, 2006). Research indicates individual teachers are cognizant of both desirable and undesirable impacts of testing. For example, Hamilton and Stecher (2006) reported that while a majority of elementary teachers believed state testing narrowed the curriculum which they viewed as negative, the majority also perceived they were "teaching more, working harder or working more effectively" (p. 23).

Throughout this section, some consequences of testing will be discussed in multiple ways. One primary example is increased pressure on teachers due to testing. Teachers have reported increased pressure due to testing has caused them to teach in ways that contradict how they believe they should be teaching and to have negatively affected their work relationships. For some teachers, the pressure is viewed as a motivating factor for instructional improvement. Increased pressure as a result of testing is reported to originate from the public, from school administrators, and from within the

teachers themselves. Therefore, increased pressure due to testing is relevant to

discussions about teachers' instructional practice, teachers' work environments, and

teachers' personal factors and will be discussed in some manner in each of these sections.

Similarly, other impacts of testing may be discussed in multiple sections.

Instructional Practice

What are the effects of high stakes testing on teachers' behaviors, particularly

instructional practices? Research indicates that high-stakes testing impacts instruction in

a number of ways including narrowing of the curriculum (Hess & Brigham, 2000; Jones

et al., 1999), the selection of lesson content (Weiss, Pasley, Smith, Banilower, & Heck,

2003), and an increased focus on drill and remedial practices (McNeil & Valenzuela,

2000). An improved focus on learning standards and more sensitivity to the diverse

learning needs of all students have also been reported (Rosenholtz, 1987).

The temptation exists for educators to reduce time and resources devoted to non-

tested subjects in response to the implementation of high-stakes testing (Popham, 2001).

Research indicates NCLB has had this effect on non-tested subjects. Hamilton and

Stecher (2006) reported that almost half of the principals surveyed reported they had

"encouraged or required teachers to spend more time on tested subjects and less on other

subjects" (p. 24). A majority of the nation's state assessment directors reported subjects

that were not tested under NCLB were not receiving emphasis and resources (Pederson,

2007).

In a practice described as educational triage, teachers have allocated resources to

students based upon the teachers' examination of available test data to predict how well

students will perform on state assessments. One study reported Texas teachers classified

students as bubble kids, meaning those who could conceivably pass the test. Other classifications were applied to students based upon whether or not they would be included in the school's accountability rating. Teachers focused resources, like tutoring and small-group instruction, on students who were considered to be on the bubble and did not make those same resources available to students who would not be counted in the test results or were deemed to be too low performing to pass the test (Booher-Jennings, 2005). Springer (2008) sought to confirm the practice of educational triage in another western state, but was unable to find evidence of this practice.

Teachers report the pressure to raise test scores has caused them to increase the amount of time spent on test preparation (Jones & Egley, 2007). McNeil and Valenzuela (2000) found Texas teachers increased the time spent on drilling test preparation materials due to pressure to raise students' scores on the Texas Assessment of Academic Skills (TAAS). Some teachers said they were required to replace the course curriculum with TAAS-preparation materials by either principals or central office administration. This pressure caused teachers to limit other instructional activities that they believed promoted higher-order problem solving and thinking. Barksdale-Ladd and Thomas (2000) reported teachers were also encouraged to use test preparation strategies and teach to the test by their administrators. Teachers stated they prepared students for the test by teaching what they believed would be on the test, using the state test format in teacher-made tests, doing test preparation each day, and teaching test-taking strategies. Teachers in another study reported pressure exists for teachers to adapt teaching to the test parameters (Grant, 2000).

Faulkner and Cook (2006) examined the perceived impact of testing demands on middle grades instructional practices. The study revealed the pressures of assessment in Kentucky middle schools negatively affected the teachers' choices of instructional strategies and the curriculum. The teachers' perceptions of time constraints caused them to merely cover material rather than providing more in-depth instruction.

In a recent statewide study, Minnesota teachers perceived their state's tests were well-aligned to the curriculum and to teachers' instructional goals (Yeh, 2005). Furthermore, teachers believed the tests emphasized critical thinking and did not promote drill and memorization. Teachers reported the state tests had increased their accountability and improved the quality of instruction. In another study, Berry et al. (2003) found some teachers viewed teaching to the test as a positive because it ensured teachers taught the state curriculum.

In a multi-state survey, a majority of the 4,200 respondents, particularly those in states with high-stakes accountability systems, indicated their state's testing program had caused them to teach in ways that contradict what they believe is best instructional practice. Additionally, nearly 75% of the teachers surveyed across all grade levels and categories of accountability responded the tests were not worth the resources required for implementation (Pedulla et al., 2003).

Teachers' choices of instructional strategies are connected to both their personal and environmental factors. Firestone et al. (2004) observed teaching to the test occurred most frequently in poor districts in a study of test preparation in New Jersey. The researchers were unable to conclude whether the type of teaching occurring in poor districts was due to previous low performance on state assessments or if low test scores

were the result of this type of instruction. Further, the researchers concluded the teachers'

responses to testing depended on multiple factors. For instance, teachers who were more

confident in their practice and knowledgeable about their state's standards were less

likely to engage in didactic instruction. Rather, these teachers explored more

intellectually challenging methods of instruction. Other researchers have also found best

instructional practices were replaced with drill and test preparation most often in

underperforming schools with a majority of poor and minority students (Grant, 2000;

McNeil & Valenzuela, 2000).

Educators are using tools to address concerns regarding the negative impacts of

high-stakes testing on teachers and teaching. Yeh (2006) studied a Texas school district

that implemented a computerized rapid assessment system to provide formative

assessment throughout the school year. Data suggest a connection between positive

attitudes about the state-mandated test and providing teachers with professional

development and adequate instructional tools, such as the rapid assessment system. In

this study, 77.6% of the teachers reported the state-mandated testing had a positive effect

on the curriculum, due mostly to creating a focus on skills and knowledge that students

needed to master. Teachers reported the use of the computerized formative assessment

system allowed them to diagnose gaps in learning and instruction. In response, teachers

were able to provide tutoring for specific students, adjust the instructional pace, or

reteach concepts to an entire class. Three positive themes emerged from this study: (a)

improved accountability for teachers which teachers believed improved students'

achievement; (b) teachers believed the test, which was aligned to the state curriculum,

focused instruction on skills students needed to know; and (c) increased teacher reflection

on instructional practice brought about improved instructional practice.   The researchers

noted no difference in veteran or novice teachers in their response to the state-mandated

testing.

Teachers' Work Environments

Research indicates teachers' work environments have been impacted by the

implementation of high-stakes testing and accountability. Teachers' work environments

encompass their individual classroom and school settings, including school culture,

relationships with colleagues, and the emphasis on high-stakes testing within their

educational context, both internally and externally. In teachers' work environments,

research shows testing has affected teachers' relationships with their colleagues, public

perception of teachers, and the level of pressure, stress, and support in their schools and

classrooms (Horn, 2003).

Public reporting of data has an impact on the environment in which teachers

work. Published reporting of test results in newspapers may be intended by many states

to motivate teachers to produce higher test scores (Hamilton & Stecher, 2006). Local

communities value the public reporting of test data (Sipple et al., 2004). However,

teachers view the comparison of schools with labels and the public reporting of test data

negatively (Barksdale-Ladd & Thomas, 2000; Firestone et al., 2004; Smith, 1991). Smith

(1991) noted the publication of test scores were often disaggregated by grade and school.

Some media reports referred to schools as failures and state that teachers were not

"particularly hard-working" (p. 9). This public reporting and subsequent perception

caused teachers to feel anxiety and stress.

Publication of test scores and sharing test data within schools may promote competition rather than collegiality among educators. Teachers report competition among teachers, schools, and districts to achieve higher test scores than their counterparts (Firestone & Mayrowetz, 2000; Firestone et al., 2004). Teachers report test pressure in the work environment can originate from interactions with other colleagues and administrators, in addition to pressure from the media. Teachers believed the pressure and stress they felt due to high-stakes testing was transferred to their students. Teachers felt they were causing harm to their students through this impact of testing (Barksdale-Ladd & Thomas, 2000).

Relationships in teachers' work environments have been impacted. Tension over teaching assignment is one example. In one study, teachers in the high-stakes states reported teachers in their schools had asked to transfer to a non-tested grade at a higher rate than teachers in the low-stakes states (Pedulla et al., 2003).

Additionally, test pressure has led to rapport problems among teachers (Winkler, 2002). Berry et al. (2003) noted teachers spoke of a colleague who "had the highest test scores, but who bragged about teaching to the test and not doing much of any other kind of teaching" (p. 16) thus creating negative feelings with colleagues. Similarly, Grant (2000) found that although teachers reported greater collaboration with colleagues in response to their state's testing changes, other negative consequences cited were increased pressure on teachers to produce higher test scores, and friction and competition among teachers for classes that are not tested.

The work environment, or school culture, as it is influenced by new demands and changes is dependent upon the message teachers receive from their primary school

leader, the principal. Ballet, Kelchtermans, and Loughran (2006) indicated the principal

serves as a mediating factor in how teachers perceive the meaning and experience the

impact of implemented policies. Principals may act as a buffer during policy

implementation to protect the school from increased demands and strain.

Teachers who work in high-demand environments of socio-economically

disadvantaged students report problems of low parental support, failing energy, and ill

health. These teachers are at greater risk of losing their motivation and commitment to

teach than their counterparts in lower demand environments (Day, 2008).

Some teachers feel the demands of high-stakes testing within accountability

systems have driven an increase in paperwork (Berry et al., 2003). Accountability

requirements often involve more documentation related to testing. For example, North

Carolina requires a Personalized Education Plan to be developed for each student who is

performing below grade level on End-of-Grade, End-of-Course, and writing assessments

(NCDPI, 2000).

Teachers' Personal Factors

Research has shown the impact of testing on a variety of teachers' personal

factors, such as teacher efficacy, teacher autonomy, and teachers' beliefs and emotions.

This study is primarily interested in the personal factor of teacher efficacy. Although this

section will focus on the available literature related to teacher efficacy, the available

literature on other personal factors related to teachers and high-stakes testing will also be

examined.

Teacher efficacy. As teachers experience increasing demands due to high stakes,

many have reported feelings of stress, anxiety, and pressure. Bandura (1994) emphasized

the importance of how emotional and physical reactions are perceived and interpreted. How teachers perceive and interpret stress, anxiety, and pressure that may result from high-stakes testing and accountability will be determined in part by their feelings of efficacy.

The concept of teacher efficacy has its roots in the construct of self-efficacy. Bandura (1994) defines perceived self-efficacy as "people's beliefs about their capabilities to produce designated levels of performance that exercise influence over events that affect their lives" (p. 71). A strong sense of self-efficacy is required to continue a task in the face of adversity or failure. Individuals with a lower sense of self-efficacy experience decreased performance during stressful situations or in demanding environments. According to Gist and Mitchell (1992), self-efficacy is a dynamic, task-specific summary of an individual's perceived capability to perform a task and is influenced by the individual, the task itself, and environmental factors. Task performance is enhanced by a belief that the task can be successfully accomplished.

A person's beliefs about his or her efficacy can develop and intensify through (a) mastery experiences, (b) modeling, (c) social persuasion, and (d) the person's physiological states during his or her assessment of capabilities (Wood & Bandura, 1989). Mastery experiences allow a person's efficacy beliefs to increase through successful experiences. By observing others completing similar tasks, efficacy beliefs can be made in comparison to others through modeling. Realistic encouragement promotes greater effort through social persuasion.

A person's feelings of self-efficacy are distinct from self-esteem, which is a person's general opinion of oneself. Additionally, self-esteem is not diminished by

feelings of inefficacy related to tasks in which a person has not invested himself or herself in doing well (Tschannen-Moran, Woolfolk Hoy, & Hoy, 1998). Self-esteem may be impacted, however, when a person has invested a great deal in doing a task well, yet begin to feel inefficacious related to that task.

Guskey and Passaro (1994) defines teacher efficacy as "teachers' belief or conviction that they can influence how well students learn, even those who may be considered difficult or unmotivated" (p. 628). Teacher efficacy is the task-specific efficacy construct related to teaching. Skaalvik and Skaalvik (2007) examined six dimensions of teacher self-efficacy, which referred to teachers' beliefs about their personal teaching ability. The six dimensions examined were (a) instruction, (b) adapting education to individual students' needs, (c) motivating students, (d) keeping discipline, (e) cooperating with colleagues and parents, and (f) coping with changes and challenges. This study used the term external control, defined as "teachers' general beliefs about limitations to what can be achieved through education" (p. 619) to refer to teaching efficacy. The researchers concluded teacher self-efficacy was conceptually distinguished from external control and perceived collective teacher efficacy. Additionally, researchers found "teachers' feelings of having to organize teaching in ways they did not believe were the best negatively related to four of the six dimensions of self-efficacy as well as to perceived collective self- efficacy" (p. 621).

Teaching efficacy is a dynamic factor. Teachers' perceptions of efficacy (a) increase when they experience increased collaboration with colleagues (Raudenbush, Rowan, & Cheong, 1992; Rosenholtz, 1989), (b) are related to the ability of the students they teach (Raudenbush et al., 1992), and (c) influence teachers' actions in the classroom,

(Allinder, 1995; Rosenholtz, 1989). In a qualitative study of Canadian teachers, Ross, McKeiver and Hogabaum-Gray (1997) found teachers' sense of teacher efficacy declined from an initial interview prior to the implementation of heterogeneous grouping in math classes. After teachers developed strategies to work with mixed-ability groups, teachers' perceptions of their teacher efficacy began to rise. Factors reported to influence the teachers' perceptions of teacher efficacy were adopting an optimistic approach, collaboration with other teachers, and the teachers' years of experience. Teacher experience in this study ranged from 2 to 25 years. Teachers who had more years of experience maintained higher perceptions of teacher efficacy during the study. Fritz, Miller-Heyl, Kreutzer, and MacPhee (1995) found when teachers challenge themselves to take pedagogical risks, their personal teaching efficacy increases. The researchers suggested personal teaching efficacy can be enhanced through decision-making in curriculum, collegial relationships with peers, and being supported during the implementation of innovative approaches.

Teacher efficacy has been found to be related to career stages. Tschannen-Moran and Woolfolk Hoy (2002; 2007) concluded experienced teachers reported overall higher teacher efficacy beliefs than teachers with five years or less teaching experience. The researchers found no difference between the efficacy beliefs of new teachers and the experienced teachers related to the ability to motivate students who show little interest in schoolwork.

Huang and Liu (2007) examined teacher efficacy of prospective and experienced Japanese teachers using the Japanese version of the teacher efficacy scale developed by Gibson and Dembo (1984). The researchers investigated the relationships between

teacher efficacy, teacher self-esteem, and teachers' orientation to seeking help. Results indicated a positive correlation between personal teacher efficacy and teacher self-esteem. Personal teacher efficacy and teacher self-esteem were both found to be higher in the experienced teachers. This finding is consistent with Bandura's theory of sources of efficacy in that experienced teachers draw upon their own mastery experiences thereby increasing their feelings of efficacy.

Research also indicates teachers' efficacy beliefs are related to teachers' years of experience and the grade level of their students. Tschannen-Moran & Woolfolk Hoy (2002) found experienced teachers had higher teacher efficacy beliefs than teachers with less than five years of experience. Additionally, elementary teachers reported higher teacher efficacy than their counterparts who taught at the preschool, middle school, or high school level. The researchers found no link between teacher efficacy beliefs and the teachers' gender, race, age, or whether they taught in rural, urban, or suburban schools. Benz, Bradley, Alderman, and Flowers (1992) studied the various levels of efficacy associated with educators at various points in their teaching career. Preservice teachers were grouped by the following categories: entering; midpoint; and exiting or student teachers. College personnel were grouped as supervisors or instructors. Practicing teachers who were enrolled in graduate classes were the sixth group. In the areas of motivation, socialization, and planning, the student teachers reported higher levels of personal teaching efficacy than the practicing teachers.

In a study involving new and veteran teachers in Virginia, Winkler (2002) found differences in teachers' responses to their state's test depending upon the length of time in the profession. More experienced teachers reported a loss of power related to

instructional issues, particularly in decision-making and flexibility in lesson design. Winkler also noted they felt "the integrity of our teaching is undermined" (p. 220) and the implementation of the Standards of Learning (SOL) test had diminished the teachers' sense of professionalism. In contrast, Winkler noted that teachers with two years or less experience viewed the activities associated with the implementation of the SOL and its associated testing as an opportunity for collaboration and pedagogical freedom. Whereas the teachers with more experience viewed the curriculum alignment and pacing guides as restrictive, the less experienced teachers viewed the consistency as a gain. Winkler connected the responses of the teachers to their perceptions of their teaching efficacy. "In short, an inexperienced teacher's sense of efficacy was enhanced by the SOL test, while an experienced teacher's sense of efficacy seems to have been diminished" (p. 223). Winkler suggested future research consider the impact of administrative behaviors related to the implementation of testing and "how an administration can influence a teacher's views on standardized testing and his or her sense of efficacy" (p. 224).

Teacher efficacy influences decisions about how teachers approach their work with students. According to Rosenholtz (1989), "when teachers feel efficacious about their professional practices, they expend greater effort with students, which in turn bolsters their beliefs that students are, in fact, capable learners" (p. 425). When teachers feel inefficacious, they demonstrate a lack of commitment to teaching and are less likely to expend energy on academic matters (Bandura, 1993). Berry et al. (2003) found some teachers separated student learning from their teaching, believing teachers' test results depended on the students they were assigned. Statements indicated some teachers did not believe they impacted student achievement on the state tests; test scores depended on

matters beyond their control. In another study, rural high school teachers reported they did not have the knowledge or efficacy to motivate students (Hardre′ & Sullivan, 2008). Additionally, the researchers concluded the teachers were nearly evenly divided regarding whether or not motivation was the responsibility of the teacher or the student.

Gibson and Dembo (1984) reported "preliminary classroom observation data suggest that teacher efficacy may influence certain patterns of classroom behavior known to yield achievement gains" (p. 579). Similarly, Allinder (1995) found students with learning disabilities whose teachers reported higher personal efficacy performed better on formative assessments than students of teachers who reported lower personal efficacy. Both of the constructs, personal and teaching efficacy, impacted the academic goals participating teachers set for their students. Teachers with high personal efficacy and high teaching efficacy set more ambitious learning goals for their students.

Other personal factors. In her extensive review of state-mandated testing, Cimbricz (2002) confirmed a relationship between state-mandated testing and teachers' beliefs and practices, which she describes as "a complicated mix of ideas that teachers believe and perceive about the work of teaching" (p. 4). How teachers feel about testing, whether or not they value the tests, or if they believe the tests are beneficial or harmful to their students and their professionalism will impact what teachers do in the classroom. For this reason, it is important to examine the literature for teachers' views and beliefs related to high-stakes testing and accountability.

Snider and Roehl (2007) found a majority of teachers believed factors beyond the control of teachers, such as home environment and learning disabilities, prevented some students from mastering basic skills. In fact only 26% of the teachers surveyed believed

all children could learn basic skills. The researchers also found the teachers believed a good teacher was not defined by high student achievement outcomes; rather a good teacher was one who made "learning fun."

Brown (1993) studied teachers' and principals' perceptions of state-mandated testing in Tennessee, Illinois, and New York. He found educators were confused regarding the purpose of the state testing policy, mistrusted the states' departments of education, questioned both the effectiveness and the appropriate uses of the test data, and believed the test results were overemphasized. Another study concluded that teachers followed administrative demands to focus on test preparation activities even when teachers indicated they did not value the state tests thus creating a conflict between teachers' beliefs and actions (Barksdale-Ladd & Thomas, 2000). Grant (2000) explored teachers' perceptions of changes in the New York state testing program and how these changes affected teachers' pedagogical practices. Grant found teachers believed the state controlled what is taught in the classroom through the use of the state tests. Teachers reported receiving conflicting messages from state educational leaders and policymakers regarding the changes in the state's testing program, which led to frustration. Similarly, Watanabe (2007) found teachers' pedagogical choices were affected as teacher priorities for their students were displaced by the influence of high-stakes testing.

Teachers view high-stakes tests more positively when they perceive the state tests have value. Berry et al. (2003) found teachers in a state with a long history of basic skills tests were pleased that new tests were more challenging and required students to think critically. Additionally, teachers were motivated when student test scores began to rise.

Performance success and positive attitudes toward high-stakes tests have been reported to go together and to mutually reinforce one another (Mintrop & Trujillo, 2007).

High-stakes testing and accountability have caused some to blame teachers for students' lack of academic success. Grant (2000) reported teachers felt they would become "scapegoats" if their students did not perform well on state-mandated tests. Curriculum materials are sometimes referred to as scripted or teacher-proof, implying teachers lack sufficient knowledge to adequately instruct students (Russell, 1997). Such materials have created a deskilling of teachers (Perrault, 2000). In contrast, higher quality professional development has been reported as a positive response to high-stakes testing (Cizek, 2001; Yeh, 2005).

Educators have reported increased pressure on teachers to produce higher test scores as a result of their state-mandated testing (Barksdale-Ladd & Thomas, 2000). Teachers' perceptions of the increased pressure due to high-stakes testing vary. Hamilton and Stecher (2006) reported some teachers viewed the pressure as a positive way to promote improving instruction; other teachers in the study believed the increased pressure had negative effects. Teachers believe the increased pressure has damaged working relationships in their school (Berry et al., 2003). Not all pressure is external or explicit. Researchers reported teachers described the pressure they felt as self-imposed. Additionally, not all teachers in this study perceived the pressure in the same manner (Sipple et al., 2004).

In a study using focus groups from two schools in the same state, Perrault (2000) discovered teachers believed the state-mandated testing negatively affected their sense of professionalism and decreased their autonomy. Perrault selected the participants in this

study for their schools' reported levels of success on the state's tests. One group worked in schools considered highly successful as measured by the states tests while the other participants were from schools that were not successful. Teachers from both groups reported feeling "powerless" and "defeated" as a result of the state-mandated testing (p. 707).

 Research has shown teachers believe the pressure associated with high-stakes testing has been detrimental to students (Grant, 2000). Barksdale-Ladd and Thomas (2000) found teachers believed their state's tests negatively impacted students, teaching and learning, and their profession. Teachers reported the stress on teachers and students was constant. In another study, teachers in five New York school districts perceived the implementation of high-stakes tests for high school would cause students who are unable to pass end-of-course exams to be more likely to drop out of school (Sipple et al., 2004).

Jones and Egley (2004) concluded that a majority of Florida teachers believed the state accountability system was not taking public education in the right direction. The teachers perceived negative effects of the testing system on teaching and learning, curriculum, and student and staff motivation. The teachers reported the testing program had fewer positive effects than negative effects on student learning.

Horn (2003) studied the experiences of K-5 Louisiana educators during the implementation of high-stakes testing in compliance with No Child Left Behind. Teachers expressed great concern that this sole criterion, a high-stakes test, determined promotion for all fourth and eighth graders in the state. During the second year of this study, teachers reported increased stress in dealing with large numbers of students who were retained the previous year due to the high-stakes testing. Teachers believed the

testing was harmful to students and the responsibility for making decisions regarding student promotion was far removed from those working most closely with students.

Teachers' levels of confidence in their practice shape how teachers respond to testing (Berry et al., 2003; Firestone et al., 2004). New Jersey teachers' responses to testing depended upon the amount of pressure they felt, the amount of confidence in their teaching ability, and their knowledge about the test standards. Those with greater confidence reported they taught to the test and engaged in test preparation activities less often than teachers with lower reported levels of confidence. They also reported they employed inquiry-oriented approaches more often than their less confident colleagues (Firestone et al., 2004). In a study involving teachers in six southeastern states with high-stakes testing, higher performing schools were found to have more confident teachers who were more experienced, had higher levels of education, and believed they taught more than what the test required. However, the opposite situation was noted in lower performing schools, where teachers were less concerned than their higher performing counterparts with issues such as teacher autonomy (Berry et al., 2003). Teachers in the low performing schools did not appear to struggle as much as their higher performing counterparts with the idea that they would be told what and how to teach. These teachers did not view teaching to the test as a negative. Teachers with lower levels of confidence appeared to not only accept direction in their teaching, but to expect direction in their teaching.

Since educational reform is viewed by teachers as a top-down process with much of the decisions made far removed from the classroom, it is necessary to examine how teachers' professionalism is impacted. Lower teacher morale has also been reported as a

response to high-stakes testing and accountability (Hess & Brigham, 2000; Rosenholtz, 1989). Mathison and Freeman (2003) examined the ways state-mandated testing affects teachers' work and the ways in which teachers' professionalism is challenged by accountability. In an ethnographic study of two schools in New York, the researchers concluded high-stakes testing caused teachers to act in ways that were inconsistent with the teachers' understandings of best instructional practice. Teachers believed the state testing compromised the quality of instruction and their professionalism was challenged because what they knew about teaching and learning was not valued. Rosenholtz (1987) states "Loss of the capacity to control the terms of work, to determine what work is to be done, how the work is to be done, or what its aim is to be, widens the gap between the knowledge of one's unique contributions to work and any performance efficacy that can be derived from it" (p. 540).

<p align="center">Teachers' Professional Identities</p>

Teachers' professional identities impact their professional and emotional decisions (O'Connor, 2008). Teachers' perceptions of themselves and their professional identities are often intertwined, are connected to their beliefs and feelings, and have been shaped by their environment (Kelchtermans, 1996; Nias, 1996). For the purpose of this study, teachers' professional identities are defined as the meaning teachers give to themselves, a professional self that emerges through their interactions. Professional identity is distinguished from personal factors such as self-efficacy and teacher professionalism. For example, teacher professionalism is often used to refer to general perceptions related to teachers and their work. Teacher professional identity is personal for each teacher, the professional self that emerges from the interactions of each teacher

and the meanings the teacher gives to those interactions. While professional identity is shaped by a teacher's meanings related to professionalism, self-efficacy beliefs, and other personal factors, professional identity is an indication the teacher makes of the teacher to himself or herself.

Teachers' professional identity constructions are flexible and emerge from a process of continual reshaping (Soreide, 2006). In another study of identity formation, Tsui (2007) concluded that a teacher's identity formation is complex. Two sources of identity formation were reported in this study. "The individual recognizes that he or she possesses competence that his or her community values, and the individual is given legitimacy to access of practice" (p. 675), which can be explained as the process by which a teacher demonstrates he or she has the competencies to be a member of the teaching profession.

In an examination of teachers' meanings regarding educational practice, van den Berg (2002) summarized the development of teachers' perceptions of themselves as teachers:

In summary, teachers' opinions and reactions to policies pertaining to their professional practice depend, in part, on their own personal meanings. That is, most changes deeply affect teachers: how they perceive themselves, how they present themselves, what they consider important--in short, their entire professional identity. In addition to this, it is typically assumed that the professionality of teacher is shaped by the continual interaction between their beliefs, attitudes, and emotions--on one hand--and the social, cultural, and institutional environment in which they function--on the other hand. As a result of

their interactions with the environment, teachers also construct specific meanings

with regard to themselves and their profession. (p. 582)

Beijaard, Verloop, and Vermunt (2000) examined how secondary school teachers

in the Netherlands perceived themselves as teachers. The researchers also examined the

factors that contributed to the teachers' perceptions of their professional identity. The

researchers state, "Teachers perceptions of their own professional identity affect their

efficacy and professional development as well as their ability and willingness to cope

with educational change and to implement innovations in their own teaching practice" (p.

750). The study examined whether teachers described themselves primarily as subject

matter expert, pedagogical expert, or as a didactical expert. Also examined were three

categories (teaching context, experience, and biographies) that might influence teachers'

perceptions of their identities. The researchers concluded most teachers viewed their

professional identities as a combination of subject matter, pedagogical, or didactical

experts. The teachers' perceptions differed significantly in how they currently viewed

themselves and how they viewed themselves as beginning teachers. Teachers' perceptions

of their professional identity influenced their judgments and behaviors.

A teacher's sense of identity and purpose as a teacher is shaped by political and

social context as well as early teacher development experiences. Lasky (2005) reported

teachers' beliefs "about how to be a good teacher were inseparable from their notions of

professional identity" (p. 906) and teachers' perceptions of their professional identity

were "inextricably interlaced with their beliefs about the right ways to be a teacher, and

the purposes of schooling" (p. 913). Lasky found teachers experience internal conflict

when policy mandates change teaching in ways that are inconsistent with teachers'

beliefs. Teacher agency is mediated by teacher professional identity. Lasky also reported a disjuncture between teacher identity and expectations of reform mandates.

The contextual influences of the work environment interact with teachers' professional identities (Flores & Day, 2006). In the current environment of high-stakes testing and increased teacher accountability, the pressure teachers experience and their behavioral responses to that pressure can impact teachers' sense of their professional identity. In a case study, Agee (2004) found the imagined identity of a beginning African-American teacher to be in conflict with the demands of state-mandated assessments. This teacher's vision of herself as a teacher "got lost in the small exigencies of a test-driven context (p. 772). Agee describes this as a "gap between progressive teacher education programs and the demands of mandated, high-stakes test on schools and teachers." Similarly, Assaf (2008) concluded high-stakes testing policies influenced the professional identity of an experienced teacher when she felt forced to abandon her own deeply held pedagogical beliefs for a more test-based instructional method.

Barksdale-Ladd and Thomas (2000) found teachers believed the quality of their teaching had declined as a result of testing, particularly the strategies they used to prepare students for tests. Other teacher concerns reported in this study addressed the perceptions of the public and policymakers of the teaching profession and the use of pressure tactics as a means of directing teacher behavior. Teachers' professional identities will be impacted by these concerns as teachers form meanings related to these concerns.

In a study of the professional biographies of ten Flemish teachers, Kelchtermans (1996) found teacher vulnerability to be a recurring theme. Kelchtermans defines teacher vulnerability as teachers' perceptions that their professional identity and moral integrity

are questioned. His reconstruction of the teachers' biographies revealed three sources of this vulnerability as (a) administrative or policy measures, (b) professional relationships in the school, and (c) limits to teachers' efficacy. Teachers' professional identities are affected when teachers realize the limits of teacher efficacy, or that other factors beyond the control of the teacher affect student learning. The researcher describes teachers as feeling they had failed when their students failed to learn. Teachers' instructional choices were integral to their professional identities. In describing the impact of teachers' values and choices on one teacher in the study, Kelchtermans notes matters of trust were a priority. He concluded teachers' instructional choices were moral choices for teachers. Kelchtermans states, "Throughout their career experiences teachers develop a subjective 'lens' through which they perceive their job situation, give meaning to it and act in it. In other words, I used teachers' career stories to understand their way of thinking about teaching and themselves as teachers" (p. 1).

Teachers may experience a variety of emotions when they feel their professional self-understanding, or identity, is challenged. Darby (2008) reported teachers in one school experienced feelings of intimidation and fear during the implementation of curriculum change. During this implementation, teachers felt their professional identities were being challenged when their instructional practice was challenged. However, as teachers became more comfortable with the new instructional practice and with working with literacy coaches, they experienced pride and excitement as their students' achievement improved as a result of the implementation of the new instructional practice. Darby described the teachers' processes of reconstructing their professional identity.

Day, Stobart, Sammons, and Kington (2006) reported two different types of professional identities emerged in a study of teachers in England. The first was positioned in the felt responsibilities for the education of their students in the context of the moral purposes of teachers' work. The second identity emerged from teachers whose professional success was determined through their ability to affect student achievement as measured by test scores. Furthermore, the researchers stated the impacts of the national reforms upon identity were mediated by the "teachers' personal sense of purpose and identity and the leadership, cultures and pupil populations of the schools in which they worked" (p. 185).

Teachers have different concerns at different stages of their careers and the resulting variations may influence how they view themselves as teachers. Huberman (1995) outlined several developmental models of the teaching career, but cautioned against stereotyping teachers by such models due to the numerous influences that occur in the real work lives of teachers. How teachers experience change throughout their careers has organizational, sociological, developmental, and psychological dimensions (Hargreaves, 2005). Newer teachers were found to be more flexible and adaptable when dealing with educational changes. Older teachers were more resistant to change and were more outspoken while mid-career teachers were more reflective and anticipatory regarding changes. Teachers also made sense of change by comparing themselves to their colleagues.

Teachers' experiences, rather than number of years in service, may affect how they perceive the impact of accountability on their professional identity. In case studies of two high school English teachers, Rex and Nelson (2004) found teachers' professional

identities superseded accountability pressures as the two teachers managed to integrate

test preparation strategies required by their department without allowing test preparation

to take priority over what they felt was best for their students. Rex and Nelson suggest

the level of importance teachers place on testing shaped students' feelings about and

possible performance on state-mandated testing. "Who teachers are as professionals is so

intricately tied to who they are as people that to think of teaching as a job that can

performed separately from what one believes to be important is to dehumanize the role of

teacher" (p. 1321). The researchers emphasized the value of the teachers' experiences in

shaping how they teach and who they perceive themselves to be as teachers.

> We learned that what and how teachers teach, even within powerful
>
> accountability cultures, is dominated by their own ethical senses of what they
>
> should do for students and who they need to be as a teacher. Even when they
>
> believed they were teaching to the test, they relegated competing pressures of
>
> subject matter standards and test preparation to a secondary position when
>
> confronted by the ethical and professional challenges of doing what they thought
>
> was best for their students. (p. 1289)

This reciprocal relationship between external pressures and internal sensemaking is

central to understanding how teachers respond to the influences of testing in their

instructional practice, environments, and personal factors. Their responses to these

factors will be integral to teachers' construction of their professional identities.

Need for Further Research

This literature review provides an overview of the ways teachers' beliefs,

instructional practice, and work environments have been impacted by the implementation

of high-stakes testing. Furthermore, the literature review demonstrates that how teachers feel about themselves as professionals is difficult to separate from their work. Teachers invest themselves in their work. As the value of that work is changed in public opinion and in their own perceptions due to the current emphasis on high-stakes testing, there is a need to explore the ways in which teachers view themselves as professionals and how these meanings are constructed.

The literature provides a glimpse into the ways that teachers' experiences, actions, and beliefs are interpreted in diverse ways, and internalized differently. Learning more about the ways that teachers internalize the results of testing and how such internalization impacts their sense of teacher efficacy and their professional identities is one area needing further exploration (Burger & Krueger, 2003; Rex & Nelson, 2004). Burger and Krueger (2003) describe the relationship of this internalization in the following excerpt:

> Some teachers may internalize test results, and translate poor results into feelings of guilt or shame. Often these feelings are based on a belief that they have failed to appropriately or adequately prepare their students for the test. As a means of rationalizing, the test may be blamed and teachers may begin to question the usefulness and necessity of testing. These views can be picked up by the students, who in turn develop their own feelings of anxiety. Thus, the whole situation may become somewhat circular; the simple fact is, both groups may be affected by high-stakes achievement testing, and that fact deserves attention. (p. 4)
>
> This study will add to the literature on the influence of testing on teachers' professional identities and how teacher internalize their professional identities.

Workplace conditions shape teachers' sense of teaching efficacy (Rosenholtz, 1989). As teachers' work environments are impacted by accountability, it is important to examine the connection between the two. Teachers with low efficacy may be overwhelmed by the increasing demands of difficult tasks (Bandura, 1993), including those associated with high-stakes testing and accountability. The literature is scant regarding the relationship of high-stakes testing and accountability to teachers' efficacy beliefs. This study will further insight on this relationship to add to the literature.

The component of accountability that involves labeling and comparing classrooms, schools, and districts on the basis of student test scores may have a detrimental effect on teachers' performance, especially for teachers working in underperforming schools. Bandura (1993) concluded seeing oneself surpassed by others may lead to a further decrease in performance, ineffective thinking, and decreased personal efficacy. The literature has little information on the efficacy beliefs of teachers and the influence of achievement comparison and labeling in relation to efficacy beliefs. This study may provide insight into this gap in the literature.

<div align="center">Conceptual Framework</div>

There is a need to explore the interconnectedness of the changes in teachers' instructional practice, personal factors, and work environments as demonstrated by the literature. As teachers' personal beliefs are changed, how teachers approach their work and make decisions affects students and instruction. Likewise, teachers' behaviors influence their personal factors. For example, as teachers use, by either direct or perceived pressure, instructional strategies for the purpose of raising students' test scores

that are not consistent with their understanding of best practice, they may experience moral conflict between their beliefs and actions.

This literature review illustrates the interconnectedness of the impact of testing on teachers' instructional practice, personal factors, and work environments. For this reason, the conceptual framework (See Figure 1) for this proposed study incorporates Social Cognitive Theory as the foundation for understanding how teachers make meaning of their professional identity or who they are as teachers. This theory is based upon the concept of reciprocal determinism, or that (a) behavior, (b) environmental influences, and (c) personal factors in the form of cognition, affect, and biological events create interactions that result in a triadic reciprocality (Bandura, 1986, 2001). "How people interpret the results of their own behavior informs and alters their environments and the personal factors they possess which, in turn, inform and alter subsequent behavior" (Pajares, 2002, p. 1).

Using a symbolic interactionism lens, this study explored how teachers construct their professional identities in the context of high-stakes testing and accountability by examining testing influences on (a) teachers' instructional practice as the behavior of interest, (b) teachers' work environments, and (c) teachers' perceptions of their teaching efficacy as the personal or cognitive factor of interest. The conceptual framework provided a foundation for exploring the interconnectedness of the three factors of interest. Furthermore, the conceptual framework supported the exploration of the role these factors played in shaping teachers' construction of their professional identities.

Figure 1. Conceptual Framework for the Study

Impact of High-Stakes Testing and Accountability on

Teachers' Instructional Practices

Bandura's Social Cognitive Theory

Teachers' Work Environments

Teachers' Perceptions of Their Teacher Efficacy

Construction of Professional Identity as described by Symbolic Interactionism

Teachers' Perceptions of their Professional Identity
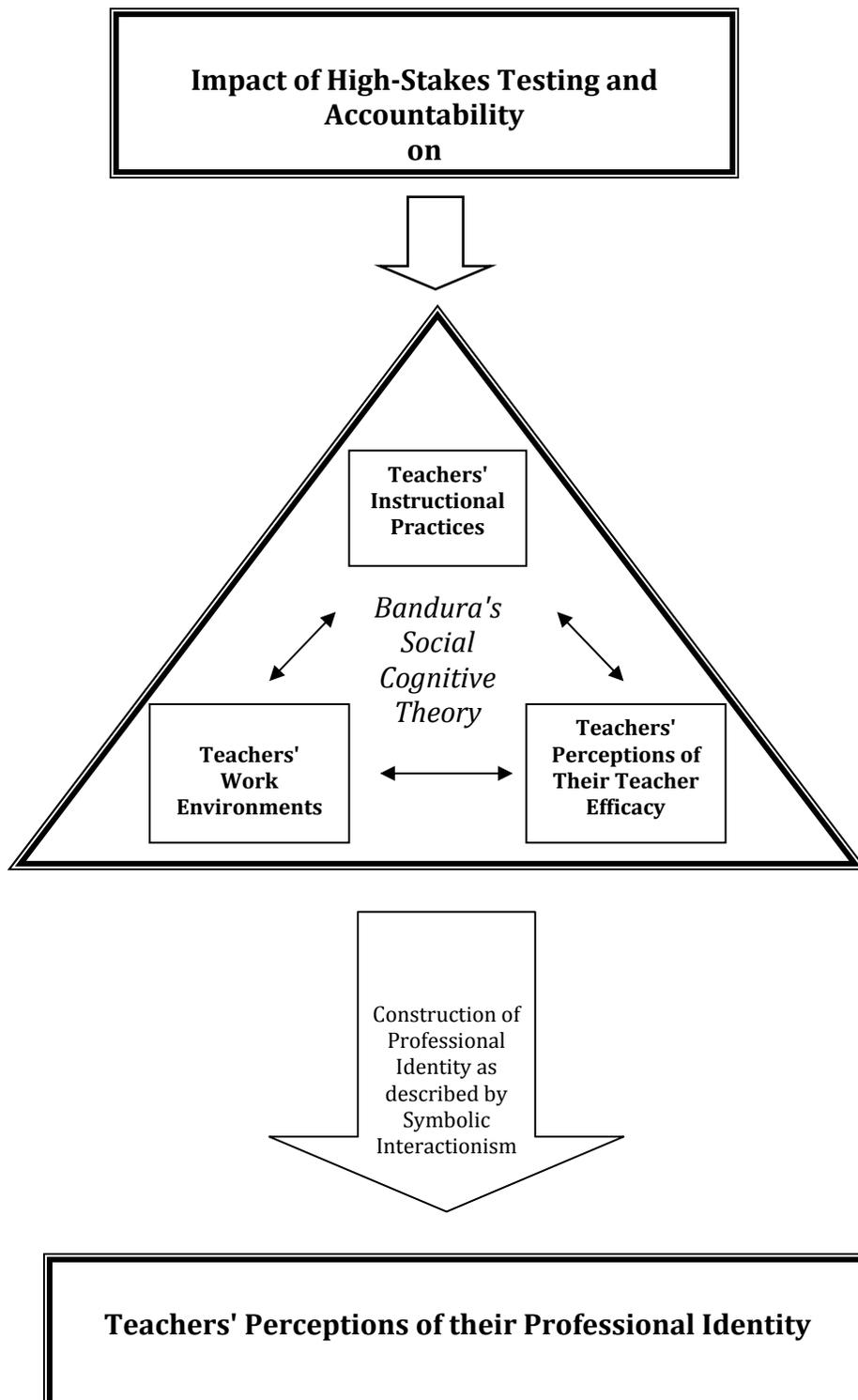
Chapter Summary

Chapter 2 examined the literature regarding high-stakes testing as educational

reform, NCLB, and North Carolina's ABC program. Additional topics covered in the

literature review examined the influence of high-stakes testing and accountability

teachers' instructional practice, personal factors, and work environment, and the

relationship of these three factors to high-stakes testing. Teacher professional identity

was also explored in this review. A thorough explanation of the conceptual framework

for this study, based upon Social Cognitive Theory and Symbolic Interactionism, was

included.

Chapter 3 will review the purpose of the study and the research questions,

describe the study design and context, and explain the data collection and analysis

process. Techniques that enhance the trustworthiness, credibility, and transferability of

the findings will be discussed.

CHAPTER 3: METHODOLOGY AND STUDY DESIGN

The primary purpose of this study was to explore the impact of high-stakes testing and accountability on teachers' perceptions of their professional identity. This qualitative study employed a semi-structured interview format to gather data from Algebra I teachers in North Carolina on their perceptions of their professional identity. "Qualitative interviewing begins with the assumption that the perspective of others is meaningful, knowable, and able to be made explicit. We interview to find out what is in and on someone else's mind, to gather their stories" (Patton, 2002, p. 341). Data gathered through this study were used to explore the following research questions:

1. How do teachers view the interactions of their instructional practice, work environment, and teacher efficacy in the context of high-stakes testing and accountability?

2. How do high-stakes testing and accountability influence teachers' professional identities?

3. Do the influences of high-stakes testing and accountability on professional identity vary with teaching experience or school setting?

Context of the Study

This study explored the impact of high-stakes testing and accountability through the voices of practicing North Carolina mathematics teachers who teach a subject with a high-stakes test: Algebra I. All North Carolina students, except those who are following the Occupational Course of Study as a decision of their Individualized Education Plan team, are required to complete Algebra I in order to graduate. North Carolina requires

Algebra I students to take an End-of-Course (EOC) examination. The state specifies the

EOC examination count as 25% of the student's final course grade. Additionally, for

students entering high school in the 2006-2007 school year and beyond, North Carolina

graduation exit standards included five high school courses in which a student must

achieve proficiency on the EOC. Algebra I is one of the five exit standard courses. At the

time of the study, the state defined proficiency on an End-of-Course examination as

scoring Level III (with one standard error of measurement for scores at the upper end of

the Level II range) or Level IV (NCDPI, 2009c).

Student performance on the Algebra I EOC is one component of the North

Carolina ABCs, the state accountability model that has been in place since 1996.

Teachers working in schools that make expected growth are rewarded with financial

bonuses of $750 per teacher. Teachers who work in schools that meet the criteria for high

growth under the ABCs model each receive a bonus of $1,500. Sanctions for low-

performing schools include state assistance teams and restructuring of school personnel.

Performance composites from all EOCs are reported publicly for each school and school

district on the state's school report card website and in local newspapers. Schools are also

required to provide a printed copy of the School Report Card to parents annually.

End-of-Course tests are also used to determine whether North Carolina's high

schools make AYP under NCLB. Under North Carolina's plan, a tenth grade student must

achieve proficiency on both the English I EOC test and the North Carolina Writing

Assessment for Grade 10 to be considered proficient in reading. In contrast, the Algebra I

EOC test scores are the only measure for tenth grade students to determine whether

schools make adequate yearly progress in mathematics under NCLB.

The Algebra I EOC test has consequences for students: the state-mandated weight of the EOC in the Algebra I course grade and as an Exit Standard requirement for high school graduation. The Algebra I EOC test also has consequences for teachers and schools. Student performance on the Algebra I EOC test is a factor in determining whether teachers and their schools receive rewards or sanctions under both the North Carolina ABCs and NCLB. Thus, Algebra I fits the definition used in this study of a high-stakes test within both state and federal accountability systems.

Sample and Recruitment Process

Algebra I teachers were the population of interest from which the sample was selected. Initial contact was made with public high school principals or district administrators in North Carolina to identify teachers who were currently teaching Algebra I. The method of contact was customized by site. I limited contact to Algebra I teachers in six Western North Carolina districts. There were eighteen high schools in these school districts, not including alternative high schools. Based upon the number of high schools and the number of Algebra I tests given in the 2006-2007 school year, I estimated there were between 60 and 70 Algebra I teachers in this sampling frame. These schools provided a convenience sample, making the research more feasible in terms of time and expense. To increase the number of teachers willing to participate in the study, professional contacts in school and district administration in the targeted districts were asked to inform Algebra I teachers of the opportunity to participate in the study.

I prepared 120 packets which included a letter of introduction (Appendix A), a brief questionnaire (Appendix B), and a self-addressed, stamped response envelope for distribution to identified teachers to provide information about the study and to solicit

participation. The purpose of the questionnaire was to aid in the selection of participants for the study and to gather demographic data about the teachers. Teachers were asked to indicate on the questionnaire if they were willing to participate in the study. If so, teachers were asked to provide their mailing addresses, email addresses, and telephone contact information on the questionnaire. Most of the packets were distributed to district or school personnel who mailed or hand-delivered the packets to the teachers. Three school contacts provided teacher names and mailing addresses to me, and I mailed the packets to their identified teachers.

From the 120 packets prepared and distributed, 25 teachers returned the questionnaire, yielding a response rate of 20.8%. From the 25 respondents, I purposefully selected 11 participants. This sample size yielded a variety of cases such as teachers working in high-performing and low-performing schools, veteran and novice teachers, and teachers from different types of work environments. Research indicates teachers' experiences and work environments may influence their perceptions and beliefs about their instructional practice (Perrault, 2000). Case selection considered teachers' experience, work environment, and reported levels of student achievement to achieve richer description of the concepts of this study.

Participant information is provided in Table 1, including the district and school where each teacher worked. The districts are numbered and the schools are named by capital letters. The AYP Status column indicates whether or not the school met the requirements for AYP under NCLB. The column, ABC Designation, indicates the school's performance label under the ABCs for 2007-2008. The school labels were gathered from the 2007-2008 School Report Card website (www.ncreportcard.org). The

School of Progress label indicates that 60% to 80% of the students tested performed at

grade level and the school made either expected or high growth under the ABCs. The No

Recognition label indicates that 60% to 100% of the students tested performed at grade

level, but the school did not make either expected or high growth under the ABCs. The

table also lists the pseudonyms that were assigned to participants to maintain

confidentiality and years of teaching experience for each teacher.

Table 1

Participant Information

District	School	AYP Status	ABC Designation	Pseudonym	Years of Experience
1	A	Met	No Recognition	John	1
				Sandy	14
	B	Not Met	No Recognition	William	2
2	C	Met	No Recognition	Elaine	18
				Connie	19
	D	Not Met	School of Progress	Brenda	34
3	E	Met	School of Progress	Nathan	6
	F	Met	School of Progress	Lisa	15
	G	Met	No Recognition	Donna	16
4	H	Not Met	No Recognition	Jennifer	6
				Allison	3

Data Gathering Methods

To ensure the questions used in the study yielded useful information to answer the research questions, pilot interviews were conducted in August 2008 with two teachers from my district, which was excluded from the sample. Following the pilot interviews, the teachers provided feedback regarding the format, questions, and probes used in the interview. The interview questions (Appendix C) were modified based upon the results of the pilot interviews. The pilot interviews enabled me to ascertain the effectiveness of the interview protocol. Conducting the pilot interviews allowed me to become more comfortable with the interview protocol, the use of the recording equipment, and the proposed interview forms. Additionally, the recordings were analyzed to assess interviewing techniques prior to interviewing the study's participants. Understanding oneself as a researcher is an additional benefit of conducting the pilot interviews (Marshall & Rossman, 2006).

Beginning in September 2008 and concluding in November 2008, one interview was conducted with each participating teacher using a semi-structured format. Teachers were asked to sign a copy of the Informed Consent Form (Appendix D) prior to the interview. One signed copy was maintained and a signed copy was provided to the participant. The interviews were conducted in the teacher's classroom, or in another location preferred by the teacher. Interviews were audio-recorded on two digital voice recorders and written notes were made during the interview. Immediately following the interview, I recorded my initial impressions of the interview in a reflection log. The interview data were transcribed verbatim and provided to the participating teachers in an

email attachment in order for the teacher to verify the accuracy of the transcription. None of the participants made any changes to their transcripts.

Following the eleventh interview, I determined saturation had occurred and concluded the interview process. Participants' responses seemed to echo previous participants' responses on questions and probes used to gather data. Creswell (2005) defines saturation as a subjective determination by the researcher that "new data will not provide any new information or insights for the developing categories" (p. 598).

Data Analysis Procedures

The interview data were analyzed to discern common characteristics and themes related to the research questions in the manner suggested by Creswell (2005). First, as the transcribed data were read, initial responses and thoughts were recorded in the margins of the transcripts. Preliminary codes were developed from this initial reading and memoing of the transcript data. Using Atlas.ti (version 5.2) software to organize the inductive process, text segments were identified and labeled with a relevant code. A list of definitions of the codes (Appendix E) was developed. After coding the text, the segments were grouped by similar codes, listing specific statements from the participants that supported the codes. From this process, the list of codes was reduced to develop themes related to the research questions and the theoretical framework concepts of this study such as teaching efficacy, professional identity, instructional behaviors, and high-stakes testing and accountability. The themes that emerged from the interview data were organized around the concepts in the framework of this study: teachers' instructional practice; teachers' work environments; teachers' perceptions of their teacher efficacy; and

the construction of teachers' professional identities in an era of high-stakes testing and accountability.

The teacher interviews provided descriptions of teachers' instructional practice, work environments, and other personal factors in the context of the high-stakes testing and accountability. I used these data to provide a description of the findings that would allow the reader to develop a sense of how each teacher viewed his or her professional identity. Additionally, I developed a vignette for each teacher to provide background and context to frame how teachers view themselves through the interactions of their instructional practice, work environment, and feelings of teacher efficacy. Merriam (2001) defines rich, thick description as "providing enough description so that readers will be able to determine how closely their situations match the research situation, and hence, whether findings can be transferred" (p. 211).

<div align="center">Trustworthiness and Credibility</div>

In order to increase the trustworthiness of the study, teachers from the district where I was employed were excluded from the sampling frame due to my position of supervision in the district. Additionally, audio-recording the interviews, the verbatim transcription of interviews, and the multiple cases were used to enhance the trustworthiness and credibility of the findings. Member checks were also conducted. Each participant received a copy of the transcript and was asked to indicate any inaccuracies in the interview transcript. No participant indicated inaccuracies in the transcript. Participants' comments from the interviews were included in the findings to illustrate the teachers' perspectives, support the narrative, and add to the trustworthiness and credibility of the findings.

Researcher Role

According to Marshall & Rossman (2006), "Reflection on one's identity and one's sense of voice and perspective and considering assumptions and sensitivities are key to a discussion of the researchers' choice of questions and of researcher role" (p. 58). This portion of the journey has allowed me an opportunity for that reflection. In this section, I will describe my own experience with the topic of the study in order to acknowledge the personal experiences and interests that have shaped this study.

Prior to becoming a school administrator, I taught high school mathematics in North Carolina for sixteen years. During my teaching career, the emphasis on EOCs changed as the state accountability program was implemented. In the early years of my career, EOCs were required to be administered, but were not required to count as a grade for the students. Later, state policy required the EOCs to be used as the final exam with the weight of the examinations determined by teachers or local boards of education. After 1995, the state mandated the exam count as 25% of the final grade. In addition to this state requirement, the local Board of Education required students to score at least a 70 on EOCs in order to receive credit for the course. Two courses that I taught, Algebra I and Algebra II, had EOCs and were subject to the state and local accountability policies. Teachers at my school were referred to by administrators and other staff as "EOC" and "Non-EOC" teachers. Non-EOC teachers often reminded EOC teachers that they were counting on us to earn the bonuses. There seemed to be a level of status associated with being an EOC teacher. I considered it a measure of my principal's confidence in my teaching ability that my assigned courses were EOC courses. I assured my students that if they were able to meet my standards for the course, the EOC examination would not

present any difficulty for them. If my students' scores on the EOC were good, I was elated. If they were less than I expected, I was devastated.

Test scores for our school district were published for each of the three high schools in the local newspaper. My principal discussed test scores, disaggregated by department and teacher, in departmental meetings and with the entire faculty. Math scores at our school were good, in comparison to scores from other subject areas in our school. Our principal frequently told the faculty, "You can thank the math teachers for pushing us over the top," when we qualified for the highest bonus.

For a period of several years, by school district policy, our Algebra classes were not leveled; there were no honors sections. Toward the end of my teaching career, the school administration made a decision to place Algebra II students in sections based upon previous grades and test scores, although they could not officially be labeled as honors courses. I was not assigned to teach the higher level students. My principal told me he thought I was a strong teacher for students who struggled mathematically and that he knew he could count on me to help this group of average and below average students pass the EOC. When I received my class lists, I recognized many of the students as those I had taught previously in Pre-Algebra or Algebra IA/IB, a slower-paced version of Algebra I. I knew these were students who had, for the most part, progressed through the math curriculum with barely passing grades. I sat down on the floor of my classroom, the breath knocked out of me by the task ahead of me.

At the end of this year, nearly all of my students passed the EOC. My students' scores were lower than the mean raw score and proficiency data of the teacher who had taught the unofficial honors group. My principal shared these data in a faculty meeting

with my name and the name of the other teacher on the bar graphs comparing our scores. No one outside our department was made aware the classes had been assigned based upon student ability. I was embarrassed beyond description and I can still recall how that felt. My colleague who taught the higher level classes asked to speak as our principal finished and stated he wanted to compliment me on my students' scores. He explained the grouping strategy that my principal had not shared with the group when discussing the scores. It was acknowledged that I had done well "with the type of students that I had been given."

In reflecting on this teaching experience, I recall that group of students fondly. They were never told they were grouped together by ability. Some students flourished and emerged as leaders in the class with a confidence that I do not believe they would have displayed if the students from the higher ability class had been mixed in with them. I began to view myself as a teacher who worked well with students who struggled mathematically. Students and parents validated this perception, how I viewed myself as a teacher, through comments and notes. Each new group became my new challenge and I believed I could help them pass Algebra I or II, and the required EOC examinations, even when they lacked confidence in themselves.

In 2002, I left the classroom and began to work as a school administrator. Therefore, the high stakes associated with NCLB and the North Carolina's Exit Standards did not affect my experience as a teacher. As a school administrator, I worked with teachers who seemed to respond to the high-stakes nature of testing in a variety of ways and those responses interested me. For some teachers, their students' performance on the exams seemed to define them as teachers. Others seemed to barely take notice of the

score roster other than to note the results for the purpose of issuing students a final grade. The ways in which teachers view themselves, or who they are as teachers continues to interest me. For this reason I find the exploration of the relationship between high-stakes testing and teachers' perceptions of their professional identity a compelling topic.

My personal experience and interests have been combined with my study of the relevant literature to develop the research questions driving this study. The review of the literature demonstrates that teachers in different settings perceive experiences in different ways and respond to their own perceptions in different ways (Day et al., 2006; Firestone et al., 2004; Lasky, 2005; van den Berg, 2002). As a qualitative researcher, my teaching experiences increase my familiarity with the world of high school mathematics teachers. Blumer (1969) states, "the scholar who lacks a firsthand familiarity is highly unlikely to recognize he is missing anything" (p. 37). As a researcher, I have exercised great care to gather information and analyze the data in a manner that most closely portrays the results and analysis through the participating teachers' perceptions rather than my own; even as I acknowledge the unique perspective I bring to the study influences how I interpret the data. I have exercised great care to conduct this study as described in this chapter and to approach the study without preconceived assumptions about the nature of the relationship between high-stakes testing and teachers' perceptions of their professional identities.

Chapter Summary

Chapter 3 reviewed the purpose of the study; restated the research questions; described the study design and context; discussed the sample; and explained the data collection process and inductive analysis procedures. Techniques that enhance the trustworthiness, credibility, and transferability of the findings were discussed. One such

technique was the use of purposeful sampling to ensure multiple contexts and

demographic backgrounds. Also, the use of qualitative methods allowed me to gain

greater understanding of the concepts of interest in this study. Using the interview data, I

was able to develop a vignette that provides the reader an opportunity to develop a sense

of how each teacher views himself or herself in the context of the influence of high-

stakes testing and accountability.

 Chapter 4 will include a vignette for each participant that provides a foundation

for the findings related to the research questions. Comments from the interviews will be

included to illustrate the teachers' perspectives and support the narrative. The data are

organized around the concepts in the framework of this study: teachers' instructional

practice; teachers' work environments; teachers' perceptions of their teacher efficacy; and

the construction of teachers' professional identities in an era of high-stakes testing and

accountability.

CHAPTER 4: RESEARCH FINDINGS

Chapter 4 presents the research findings and includes a description of the sample. The purpose of this study was to explore the influence of high-stakes testing and accountability on teachers' perceptions of their professional identities. Using semi-structured interviews with high school Algebra I teachers, I sought to gain in-depth knowledge of the interconnectedness of teachers' beliefs, practices, and work environments. The professional identity of each teacher was explored in the context of the professional self that emerged as the teachers made indications to themselves through the interactions of their instructional practice, work environments, and personal factors, such as teacher efficacy.

To explore the influence of high-stakes testing and accountability on teachers' perceptions of their professional identities, the following research questions were examined:

1. How do teachers view the interactions of their instructional practice, work environment, and teacher efficacy in the context of high-stakes testing and accountability?

2. How do high-stakes testing and accountability influence teachers' professional identities?

3. Do the influences of high-stakes testing and accountability on professional identity vary with teaching experience or school setting?

Before the research questions are answered, a description of the sample is provided which includes the participants' years of general teaching experience. A

description of the teachers' schools in terms of Algebra I EOC proficiency, composite EOC proficiency, and school status under both NCLB and the North Carolina ABCs is reported for the sample. Demographic and context data, gathered through the questionnaire and from the North Carolina School Report Cards available on the North Carolina Department of Public Instruction's website (http://www.ncreportcards.org/src) is also included. Comments from the interviews are incorporated in the findings to illustrate the teachers' perspectives and to support the narrative.

The participants in this study ranged in experience from teachers with just a few years of experience to a veteran who had retired after thirty years and returned to work. Male and female participants, from high-performing schools and struggling schools, teachers who had always dreamed of becoming a teacher and those who initially chose other paths prior to entering the teaching profession, provided data for this study.

In the sections that follow, the participants are described. A pseudonym is used for each participant to maintain confidentiality. A vignette is included for each teacher in which the interactions of the teacher's instructional practice, work environment, and teacher efficacy are explored. Following the vignettes, the remaining sections address the research questions.

<div align="center">Description of the Sample</div>

Of the 25 respondents to the initial survey invitation, 11 Algebra I teachers were purposefully selected for participation. Each of the teachers taught at least one section of Algebra I during the school year before the study was conducted. Ten of the 11 teachers were teaching Algebra I during the fall semester of 2008 or were scheduled to teach Algebra I during the spring semester of 2009. The remaining participant left the

classroom in 2008 to work in an instructional support position. The participating teachers

worked in eight schools located in four different school districts in North Carolina.

According to the 2006-2007 School Report Cards, the participating teachers in this study

worked in schools that had overall EOC composite proficiency rates (across subjects)

ranging from 62% to 82%. The Algebra I proficiency rates for the participating schools

ranged from 56% to 81% in that same year.

Six of the participating teachers taught prior to the implementation of the North

Carolina ABCs and NCLB. Nine of the eleven participants earned undergraduate degrees

in mathematics. One participating teacher was a lateral entry teacher. Another participant

earned a bachelor's degree in business administration before returning to college to

obtain her master's degree in middle grades education with areas of certification in math

and science. In all, seven of the participating teachers held graduate degrees. One

participant was a National Board certified teacher.

Several teachers expressed their decision to teach had a spiritual, or religious,

foundation and referenced being called to teach. Connie stated "This was actually a

calling for me. I felt like God's plan for my life was to be a teacher." Several teachers

were influenced to teach by other family members who were educators. Four teachers

stated they always wanted to teach, played school as a child, and entered the teaching

profession immediately after college. Seven teachers originally planned to do something

other than teach, such as becoming a writer, doctor, or minister. Some teachers described

a process of examining their strengths and interests that helped them decide to become a

teacher. For example, John shared a very methodical approach to narrowing career

options to the most "realistic job for me" after realizing the profession he dreamed of pursuing was not likely to provide a stable income to support a family.

Although Sandy believed teaching was her calling and stated she realized in high school that she was good at explaining math, she did not see herself as a "brilliant mathematician." She shared her beliefs that a teacher whose math ability far exceeds her students' abilities often has difficulties explaining math to students. Connie also expressed similar beliefs about the limits of her mathematical abilities.

Four teachers had other jobs prior to teaching and described some experiences that helped to identify teaching as the next step in their career. Following a military career, Lisa was motivated to become a teacher after volunteering in an elementary classroom. William worked for several years as a social worker dealing primarily with troubled teenagers before entering the profession as a lateral entry teacher. Connie, unhappy in her first career, returned to college to earn a teaching degree at the urging and expense of her parents. Nathan worked in the faith community prior to becoming a teacher.

Four teachers worked in schools that had recently implemented a freshmen academy to assist ninth grade students in the transition to high school. Two of the participating teachers in the study, Connie and Brenda, were assigned to teach in a freshmen academy. William and Elaine each worked in schools that had implemented a freshmen academy, but they were not assigned to teach in the new academy. Instead, they worked exclusively with the repeating students who had previously failed Algebra I, struggling math students who were placed in a lower level math during their ninth grade year, or ESL students.

During the interviews, some teachers referred to their Algebra I course as being taught in the context of an Algebra IA/IB model, which divides the Algebra I curriculum over two courses. Essentially, the course for which students were awarded the Algebra I credit, the tested portion of the sequence, covered only the second portion of the Algebra I curriculum as outlined in the Standard Course of Study (SCOS). This finding is covered more fully in a later section of this chapter.

The following vignettes, constructed from interview data and my perceptions, provide background and context to frame how teachers view themselves through the interactions of their instructional practice, work environment, and feelings of teacher efficacy. Each vignette concludes with a description of the teacher's professional identity. These vignettes provide a foundation for the findings related to the three research questions that are described later in the chapter.

Vignette #1: John "Going to be really good"

At the time of the study, John is a second year teacher in a work environment that enjoys strong community support. John believes that the local community recognizes his school as a very good high school. He thinks the school district is recognized as a "very good school system compared to other school systems around the state and around the country."

John feels confident in his ability and is proud he attained his master's degree before teaching. John had dreams of pursuing another career, but realized it would be difficult to earn a steady income in that field. After a methodical analysis of his abilities and opportunities, John followed in his mother's footsteps and became a teacher. He likes being a teacher in the public schools.

In his Algebra I classes, he uses mostly what he describes as direct instruction in which he explains the concepts and the students do worksheets for homework. Although he occasionally uses some projects and open-ended items, he says he keeps class straight-forward so "that they can be prepared for the EOCs." Regarding his instructional choices, he states:

> I've improved on being able to take risks and do some more projects because I feel like a lot of times I get stuck on just lecture and worksheets. And I don't want to get stuck on that, but at the same time, sometimes it's the easiest thing to do and I feel like in some ways that's the easiest way to present information and not do all of this discovery stuff.

John has a high sense of teacher efficacy related to preparing students for the EOC. He believes he prepares his students well and intentionally includes test-taking strategies and reviews designed in the format of the EOC in his instruction. Without an EOC, he believes he would spend less time reviewing for the EOC, leaving more time to cover additional topics in Algebra I and incorporate projects into his instructional strategies.

Even as John references the activities he uses to prepare students for the EOC, he approaches the level of emphasis on EOCs in this school in a pragmatic way. He believes he is preparing his students in a challenging manner and if his students do what he expects of them, the EOC will not be any more difficult for them than the work he requires. He does not believe he or the other Algebra I teachers teach to the test, although they do emphasize preparing for the EOC. He says, "We are very interested in having high test scores." John views EOC results as one indicator of teacher performance. While John says good teachers don't necessarily have great test scores, he does believe it is

possible to draw some conclusions about teacher performance from test scores. He believes it would not be reasonable "for a teacher that's not doing a good job to have really good test scores." John is extremely pleased with his EOC scores from the previous school year and refers to the "success *I* had on the EOCs." He views the EOC scores to be *his* scores, reflective of his performance as a teacher.

John and his fellow teachers discuss EOCs and testing in general. John says they do not believe the format of the EOC is the best way to test. Personally, John may be more accepting of the EOCs than other teachers due to his experiences as a student. As a high school student, John was required to take EOCs. He believes the tests are a reasonable and objective way to "test the material." He believes the number of tests given to students over the K-12 span may be too many.

John feels qualified to teach honors level courses based upon his educational background and his participation in a prestigious scholarship program for prospective teachers. John expresses frustration and disappointment that he has not been assigned an honors level class during his first two years of teaching. John believes another teacher hired at the same time has been given a better teaching assignment. His frustration is evident in the following comment:

> But I've wondered…why she got two geometry classes and a Tech Math 2 and I got two of the lowest levels? Then I had to fight for my geometry class. And I especially wanted that because I was a Teaching Fellow. I've got my master's degree…I feel like I've got more training, that I'm far more equipped.

Although he feels comfortable with most of his department, John feels some of the teachers with seniority who are influential in determining class assignments have forgotten what it feels like to walk in the shoes of a beginning teacher.

John references a rough beginning with classroom management. He has improved in this area and expresses excitement in looking forward to how much he will continue to improve in the years ahead. John consistently communicates expectations and enforces classroom rules. As a result, he believes his students would describe him as mean. His mother's students perceive her in a similar way and John seems comfortable, and somewhat pleased, with being like her in this respect.

John's principal has been a strong influence in how John feels about himself as a teacher. John accepted this teaching position because he knew the principal when he was in high school and the principal had a positive opinion of John as a student. John describes how his principal views his performance as a teacher:

> He thinks I could be one of the best math teachers in the county in a few years. He said the reason why he says that is I am constantly looking at myself and trying to improve, which I did a lot of that over the summer and improved my classroom management…He said that I take risks. I've really tried to do more projects and I think he likes that. He complimented me in a faculty meeting…I think he thinks I'm doing a good job.

Although John has a long commute to school, believes he is being treated unfairly with regard to teaching assignment, and has considered transferring to another school, he says he is staying at this school because he likes working for his principal.

Throughout the interview, John referenced his potential to improve with a level of excitement. He feels good about his teaching ability in most ways now and describes being a reflective practitioner. Although he admits to limiting his instructional practice to mostly teacher-centered, or direct instruction, methods, John is aware that he should vary his instructional methods. John's sense of teaching efficacy is high, except in the area of impacting students who are unmotivated and difficult to teach. He shares:

> I've yet to figure out, to learn how to help a student who comes in, brings no materials, sits there and does nothing, and doesn't care whether they pass, fail, get [out of school suspension], get detention, whatever, that have no parents, no home life to help them out, what do I do with those students? And that I haven't figured out and there's probably a bunch of 20-year teachers that haven't figured it out either.

Still, he is optimistic about his ability to improve in this area as well. John almost describes his potential as a teacher as accepting of his imperfections as a new teacher because he is confident he will improve.

As a young teacher, John is still developing his professional identity, which is positioned in a teacher-focus, primarily oriented to himself rather than peers.

> I'm extremely thrilled that I've improved in just one year. I'm not perfect… I'm very pleased with where I am now and I can see how teachers improve over the years. I think if I've improved this much in one year, where am I going to be in five years--after I've taught a lot more classes, had a lot more experience? I'm really excited about that because I think I'm going to be really good. And I'm going to be a very strong teacher, I feel like. That's what I want to aim for.

His identity is linked to his qualifications to teach, his identification with his mother who teaches, and the positive interactions he has with his principal regarding his practice. In fact, how John feels about himself as a teacher is very similar to how he says his principal feels about him as a teacher.

Vignette #2: Sandy "Shield"

Sandy teaches several levels of Algebra I although the state does not distinguish or allow honors credit to be awarded for Algebra I. Her school created an "advanced" Algebra I from the students who took Algebra I in eighth grade, but "were still a little shaky." Sandy has usually been assigned to teach this group for most of her 14 years of teaching experience in the school where she was once a student. She refers to all of the other sections of Algebra I as really an "Algebra IB, which we don't call IB anymore." She says, "We're playing the word game with the state." These students have taken the first half of Algebra I in a course called Introductory Mathematics.

Sandy's instructional practice reflects a student-centered approach to learning. Sandy tries to relate algebra to everyday concepts like how a cell phone bill is calculated to introduce linear equations. Students are allowed to work with the partner of their choice. She uses group discussion and works sample problems for students using an overhead projector. Sandy describes using different instructional strategies based upon the level of Algebra I students she is teaching. Sandy uses more discovery learning with the "advanced" class than she does in her "regular" Algebra I classes. She has to focus more on the basics with the regular Algebra I. Sandy also has to work harder to convince the regular Algebra I students they can be successful because many have little confidence in their math skills. Their low confidence often comes across as a lack of motivation.

Sandy believes that even students who appear to be unmotivated want to be successful. She believes "we are designed to look for success" and some students just hide their desire better than others. Sandy tries to increase student motivation by helping her students feel successful from the first day of class. She publicly acknowledges them when they do good work or improve their grades, except when she is aware a student prefers not to be recognized. Then she tries to acknowledge success in a more private way. She grades her assignments quickly so the feedback is meaningful to the students. She gives more attention in class to students who are doing the right thing rather than students who create disciplinary problems. Sandy encourages her students. She is tough on her students, but it is important to her that they know she cares about them. Her high sense of teacher efficacy is evident in her statements that she expects she will find a way to work with every student. Sandy expects them all to be successful, even if some students just need more support than others.

Sandy recognizes the different needs of individual students and tries to provide the support each needs to be successful. Because she knows many of her students do not have expensive graphing calculators or parents who can assist them with their work at home, Sandy devotes a portion of each class to homework or independent practice. Sandy stays after school to provide tutoring, communicates extensively with parents, and allows students to retest if they come in for extra help first.

Sandy enjoys teaching Algebra I because she feels she is able to help students who may not have experienced success, but she dislikes the pressure she feels from the EOC. Sandy is concerned about how the EOC makes students feel about themselves.

Sandy sees herself as a "shield" between her student and "what's going to completely swallow them up." To serve as a shield for her students, she says:

> I go to great lengths to make sure they are ready for that state test. We have lots of practice. We talk about it a lot…I use everything that the state gives me that I can get… I tell my kids…my goal is that when you open that state test, there's no surprises—none… I mentioned earlier about their confidence. You know if they've been successful all semester long, they feel more successful going into that state test…I try to really find ways that they are noticing their success. I feel like that success leads to more success.

If there was no Algebra I EOC, Sandy believes she would adjust the pace of the course. She sometimes feels she is "throwing so much at them at one time" so that she has enough time at the end of the course to "practice for the EOC." She would like to be able to customize the course to meet the needs of her students. She believes more time for instruction rather than EOC practice would allow her to achieve this goal.

Teaching assignments in her department are based upon seniority and "where your success has been." The success she refers to is good EOC test scores and Sandy's principal weighs in on that part of the decision. Sandy believes she has been assigned to teach Algebra I because her classroom is structured, her expectations for all students are high, and her support helps them succeed. Students with weak math backgrounds respond well to the structure and boundaries.

Sandy believes the high stakes of the EOC affect her students' performance on the EOC. Because they know they must make a Level 3 or 4 on the test, they feel pressure. She tries to "shield them a little bit from that pressure" by assuring them she has prepared

them for the test. They are ready for it; she is proud of them. Sandy thinks the test administration takes too much time for 14 and 15 year-old students. Some of her students have worked nearly four hours on the EOC. To Sandy, this is unrealistic for a single course credit and is more in line with the bar exam or a medical entrance exam.

Her strong sense of teaching efficacy is evident when she discusses her impact on student achievement, particularly on the EOC. Sandy emphasizes the structure of her class and organization of her lessons. She believes the maximum use of discovery learning helps her students as they develop competence and confidence. Sandy portrays the EOC in a positive manner as an opportunity to demonstrate, or "show off," all they have learned. Sandy believes work ethic and willingness to work are more important than ability in most cases. Sandy believes she can be successful with almost every student "if they will give me their best effort." Her first classroom rule is "Do Your Best." Sandy promises her students that rule applies to both teacher and student. Sandy finds many former students are appreciative that she held high expectations and pushed them to achieve, even though this appreciation may occur once they are in the next math course or in college. This appreciation keeps Sandy motivated and is one comfort that helps her deal with the frustration and pressures she feels related to EOCs and accountability. She says, "That's the whole reason I can keep doing it. If all I had was trying to please the state, I would have been out of here a long time ago." Sandy believes she is accountable to herself and her students.

Former teachers, who felt immense pride in the bright teacher they once taught, guided Sandy as colleagues. With retirements and the passing of fourteen years, Sandy's role and identity within the department have changed. She now mentors young teachers.

This feels "different" for Sandy and she has accepted the challenge of stepping up to a leadership role. She believes her department communicates and works together to share ideas and resources and views this as a positive aspect of her work environment.

Sandy was disappointed with her most recent Algebra I scores because several students made above a 70, which is generally a passing grade in courses, but did not meet the state's proficiency standard of Level 3. Sandy found it difficult to explain to students who had to retest. She has reflected on what she and her students could have done differently during that course. Sandy says she didn't "go home in tears or anything like that," but she did not like the fact that her students had to be subjected to a retest. Sandy felt frustration because some of the scores were so close to the proficiency level and she believed her students were proficient based upon her assessment in class. She hopes "the people" who determine the Level 3 cutoff score are correct, "because that's big to say to a kid because of one little point, you didn't meet a graduation requirement." Sandy worries about an Exceptional Children (EC) inclusion class because although they work hard, "they don't necessarily test well." Although Sandy's principal tells the faculty if they feel pressure from the EOC they are doing it to themselves, she hears a different message when every faculty meeting includes discussion related to test scores and accountability issues. This message creates EOC-related stress for Sandy in her work environment.

Sandy is not motivated by the ABC bonus money, but feels cheated that her school did not earn bonus money last year due to the way it was calculated. Certain EOC-tested subjects were not included in the calculation as they had been in years past. Sandy says when individual teachers feel they are working hard and experiencing success in

their classrooms, having it made known publicly that the school did not meet requirements could lead to teacher burnout with even the strongest teacher. Sandy fears the general public does not know enough about how these measures are calculated and the label of failing to make AYP causes the public to get the impression the school is not doing the best by their children. Sandy describes EOCs and the state's accountability system as a "monster that is just consuming instead of helping because it ties our hands in a lot of ways…as opposed to leaving us to just teach."

Sandy wants her students to know they are not less valuable if they struggle in math. The world would be a dull place if everyone were a "math geek." She is uncomfortable with new state standards that basically require all students to meet college entrance requirements, including Algebra I, Geometry and Algebra II.

> I feel bad, I feel like we're, not me as an individual, but the state, all of us as a whole, are kind of communicating to kids that if you are not good at math and you can't get through those subjects then there is something wrong with you and you know you should be able to do this… So yes, I feel like in a lot of ways I'm being forced to try to shove them into this one little peg hole, this one little pathway. That's not in the best interest of all of them. But that has been taken out of my hands.

These requirements contradict Sandy's beliefs about the individual needs of students.

Sandy's professional identity is grounded in her perceived role as her students' protector and shield from the detrimental aspects of accountability such as making students feel they are worthless if they are not strong in math. Her professional identity is positioned in a strong student focus. Her instructional practice reflects a student-centered

learning approach. Sandy's professional identity and personal beliefs about the role and

purpose of teachers often seem in conflict with her perceptions of the external

accountability requirements placed upon her and her students. Sandy believes teaching is

God's plan for her life. She had professors who were brilliant mathematicians who could

not get the concepts across to their students. Although she does not see herself as a

brilliant mathematician, Sandy believes her gift is her ability to explain math in a way her

students will understand the concepts. Seeing her students learn motivates Sandy and

keeps her enthusiasm for teaching alive. Sandy believes she must do what she is called to

do regardless of external requirements that are placed on her.

Vignette #3: William "Love seeing kids excel"

William is in his third year teaching in a high school that has implemented a

freshmen academy this school year. William does not teach in the academy so his

Algebra I students are drawn from the students who have previously failed Algebra I or

were enrolled in remedial classes to prepare them for Algebra I. His school uses an

Algebra IA/IB model and has renamed Algebra IA, Introductory Math. The course he

teaches called Algebra I is actually just the second half of the Algebra I curriculum, what

was once Algebra IB. In addition to Algebra I, William teaches a mixture of Technical

Math and Introductory Math courses.

William believes having an EOC at the end of the class motivates some students

to work harder than they do in the non-EOC classes he teaches. Although he uses some

projects and "real world applications" like mock investing in Algebra I, he does not use

them to the extent he does in his non-EOC courses. William begins class each day with a

warm-up or a review prior to introducing new content. He allows students to work with

partners and do some discovery learning. Although he would prefer to use more student-centered approaches to instruction, he does not use these activities as often as he feels he should because his students lack the confidence and mathematical background skills to work independently. The EOC, and the need to review for the EOC, limit the number of days he can spend on these activities. Because the content is tested in Algebra I, William strays less from the state prescribed curriculum than in his non-EOC courses. William describes several projects he uses that engage his students in his non-EOC classes. He cannot use these activities in his Algebra I classes because "I don't typically feel like I have [the time] in the context of a test that we are being told all of the kids have to pass."

Although William enjoys teaching the Algebra I content, he feels a great deal of pressure associated with the EOC test and working in a school that has been labeled a Priority School under the state accountability plan in recent years. He shares how that label, and the resulting pressure, has influenced him.

> There is a lot of pressure that is put on by the school district that ultimately gets put down onto our administration and ultimately comes back to us for the test scores. Last year for example, previous year we were below, we were a target school…meaning we had to bring the test scores up overall…you kind of have that in the back of your mind…It does create a different environment. So I don't like that aspect.

William feels a great deal of pressure related to accountability as a faculty member in this work environment. Teachers are constantly reminded that state sanctions are imminent if scores do not improve. District office personnel visit classrooms on a regular basis and test scores disaggregated by teacher, subject, department, and school are published and

examined by the district office. The principal emphasizes that he sees good things taking place in the school, but it does not alleviate the pressure William feels from other sources. As a new teacher, William knows his test scores will affect whether the district rehires him each year. He says, "I'm essentially on a provisional license for the first three years…and so it's in the back of your mind. If kids bomb it, they can say, oh we don't want you to come back next year." Because he teaches repeating students, his department chair has told him if even 50% of his students pass the EOC, he will be successful. William is not certain anyone beyond his department, without knowledge of his class composition, would agree.

William believes few of his students will attend college. He believes much of the Algebra I curriculum is irrelevant to students who will not be going to college or one day taking a calculus class. He believes the EOC measures skills that are not relevant to every student. He would like for Algebra I to be tailored to meet the life needs of his students. Like Sandy, he feels this requirement is "trying to put everybody into one little box and it doesn't work that way." He worries his ESL students may not pass the EOC as a result of their difficulty with the "language rather than their ability to do the math." William thinks this is one reason schools will "leave children behind."

William believes seniority and teacher preference is strongly considered in determining teaching assignment. He does not feel he has been given much preference during these three years. He does believe his background in social work prior to becoming a teacher has factored into this assignment of the repeating students and ESL students who face many obstacles to academic success.

William believes the math department is strong and the other teachers have assisted him as a new teacher. Members share resources and offer assistance when it is needed. He feels good that veteran teachers have asked to use materials that he developed for his class. William also acknowledges that his department has accepted him, in part, because his students' scores have been good. His students' EOC scores affect all members of the staff. He believes his colleagues find he has good judgment and gets along well with others. William has a high sense of teaching efficacy, particularly with students who are lower performing in math, but are willing to give their best effort. William believes he is able to get through to these students where others have failed before him. In fact, these students are the greatest source of satisfaction in his work.

> But the other thing that keeps me coming back is… the success stories of students that I feel like other people have not been able to reach that for whatever reason, what I'm doing has helped. And that's something that I love. I love seeing kids excel to the best that they are able to do. And just to challenge them to get them thinking maybe in a way that they haven't thought prior to coming in to my classroom.

William's sense of teacher efficacy is heightened because he feels he may be more prepared than other teachers to deal with this student population due to his past professional experiences.

William believes his school is doing a good job in ways that are not measured by EOC scores with the challenging population they serve. He is bothered by recent newspaper reports that present his school in a negative manner regarding their dropout rate and low EOC test results. He takes this personally. William finds comfort in the

successes he experiences in his own classroom. He says, "Individually, in my classes, looking at students that, without me going out of my way, probably would not have been successful, and seeing those little successes that I guess I hold on to."

William believes student motivation is a key factor to students' success in his class. Most of his students come from impoverished backgrounds. His school has the highest rate of economically disadvantaged students in the district. Students' families are struggling with survival issues and, whether unwilling or unable, offer little academic support for their students. To help address their needs, William offers extra help sessions for his students. He feels he has helped students pass the Algebra I EOC who have not experienced that success before. He acknowledges that he impacts his students in a positive way, like showing them they can be successful and giving them hope they can pass the course. William strives to get them to understand that in order to overcome the negative situations outside of school that affect their academic performance, the students must be "100% invested in doing their math" when they are in his class. William expresses a strong sense of teaching efficacy in relation to student EOC performance:

> Once they buy in, I think I've learned enough over the past three years and I've taught these classes pretty consistently, that I know what's in the Standard Course of Study and I know what they are going to be tested on. I am able to I guess teach it effectively enough, that most kids are favorable or have a favorable reaction to my class and typically do pretty well on the end of course test.

William sees the irony in a state-required EOC with 80 items being given to a student whose IEP says she must be given modified assignment where she is always given fewer problems than the other students. William says education experts hold diverse learning

strategies as the best practices for teaching students, yet accountability plans require a standardized test for students with diverse learning styles. He believes testing all students in the same way goes against all education research.

William is a teacher and a learner. Many days he learns more from his students than they learn from him. He views the teacher-student relationship as one of "give and take." William is flexible and seems to accept that education will continue to change and he will continue to learn in order to best serve his students. He does not have an expectation of ever having it all figured out.

William's professional identity is anchored in his belief that he brings a unique set of skills or tools to his work with academically and economically disadvantaged students due to his prior experience in social work. His strong sense of teaching efficacy is derived from his belief that he is able to reach students who have not been successful with previous teachers. His professional identity is positioned in his strong student focus.

Vignette #4: Elaine "Not overly compassionate"

At the time of the study, Elaine is teaching in a school that has implemented a freshmen academy. This is the first year of implementation and Elaine says she "was not chosen" to teach in the academy. Instead, Elaine teaches Algebra I to students who are repeating the ninth grade and have previously failed Algebra I. Elaine has 18 years of teaching experience, including several years in another state that also had a high-stakes testing and accountability system. Elaine loves teaching Algebra I. In addition to teaching Algebra I, she also teaches two non-EOC classes called Technical Math.

Reflective of her teacher-centered instructional practice in Algebra I classes, Elaine relies mostly on direct instruction in which she lectures, her students take notes,

and she shows them the steps to solve problems. Elaine mentions an occasional use of

algebra tiles and pegboards for graphing. She believes these activities may be "a waste of

my time," but she uses them "just in case." Later she refers to them as "a lot of that fru-

fru. I'm not sure how far it takes me, but I have those kinds of strategies if I need them."

She has her students work their homework problems on the board each day. Elaine tries

to make her class as difficult as she thinks the EOC will be. She believes if she does not

teach them at that level of difficulty, she will have failed her students. Without an EOC,

Elaine would feel "less pressure to cover so much" material.

Elaine's feelings about her work environment are multi-faceted. She loves

working with her department, which she describes as wonderful and a family. They share

materials and friendship. The freshmen academy is located on the hall that formerly

housed the entire math department. This has caused the math teachers who do not teach

in the academy to be moved to other areas of the school. The math department members,

including Elaine, are unhappy about being separated. Elaine describes the implementation

of the freshmen academy as turning the school "upside down." Elaine says, "We used to

eat lunch together. They [school administration] have tried to divide and conquer us, but

they're not going to succeed." She describes the strong accountability she feels to the

teachers in her department:

> There's no competition. We are a team. If Algebra I doesn't teach what they need
>
> to, then Algebra II suffers. We are very accountable. If I teach students the first
>
> half [Foundations] and they do not know their concepts, then I am accountable to
>
> that second--the Algebra I…And I will tell my students I am not going to sit at
>
> lunch with these teachers and they ask me--how did these students get out of your

class? They don't know what they need to know. I'm going to be accountable to

them and you know we are accountable to each other.

When Elaine speaks of the high quality of her department, her comments are mostly

related to the family-like relationships that exist among the members.

Elaine believes her students would describe her as tough. She says she does not

even think about whether she likes her students or not. Her primary focus is on helping

them be successful in her class and pass the EOC. She shows little mercy for students

who do not do their work in her class and believes motivation is something students

either possess or do not possess. Student motivation does not seem to be Elaine's

responsibility. Elaine does not use false sentiment. She says, "You know you failed it and

I am not going to be kind about it this way. So, yeah, I'm probably not touchy-feely, not

overly compassionate." Elaine prefers to teach students who are responsible. She does not

believe in coddling students and says, "My biggest burden is doing things for students

that are not practical for the adult life and that is not making them responsible for

themselves, their learning." She spends class time talking to students about the

importance of graduating from high school, even if they do not have support from home.

But do I care about my kids? Yes. Do I want them all to be successful? Not

enough to give it to them, but enough to want them to meet my expectations, yes.

I want them all to be successful. I want them to earn it so they feel good about it.

I want them to know it is their success. It's not just handed to them. It came with a

cost. It came with their own responsibility. So as a teacher, I wish I was more

fuzzy warm, but not enough that they feel like…she's going to give it to me.

Elaine feels the accountability requirements remove her ability to pass students who may have worked hard in class, but for some reason, are unable to meet the test standard. Having taught in a time when teachers were the ultimate authority on which students passed and which students failed, she views the loss of her ability to make this educational judgment as a result of accountability requirements. However, Elaine has not requested a waiver of the standard for any of these students she describes even though this is permitted by the state accountability policy.

Elaine shares a revealing comment about the department's beliefs about students' rights to access the college preparatory mathematics curriculum. Elaine describes students who barely passed Algebra I being allowed to go on to geometry or Algebra II, "just because they want to." According to Elaine, "They don't have the math sense to be successful." This is a problem because it creates lower test scores in the higher-level EOC classes. Her comments reflect concern about the test scores associated with a class rather than the possible implications for the students. Her department has discussed potential solutions to this problem. Many of these students took Algebra I in an Algebra IA/IB format that this school calls Foundations and Algebra I. Math teachers at this school have discussed ways to create a geometry course taught over two blocks, much like the Algebra IA/IB model. The department has also discussed "is there a way that we can discourage students who are not ready, who are not at that point to take geometry, to take the Tech Math I and Tech Math II?"

Elaine believes the public holds teachers in high regard and people perceive her as smart because she teaches high school math. She laughs because she says she teaches the lowest high school math. Elaine views teaching as the "best and the worst of all

professions." As much as she has described herself as a teacher who cares only about her students' class performance, she does express concern for her students who face difficulties at home as well. This concern is expressed in relation to how their problems may keep them from being successful in Algebra I. Elaine is organized and efficient and she leaves the problems of school at school. Elaine works hard at school so her time at home is spent with her family. She believes that teachers who talk about having to take so much of their work home must be disorganized and waste time at school.

Several times she admits that she can be sarcastic with her students, a trait she does not find desirable in teachers. She acknowledges that she sometimes focuses on the negative behaviors of her students and gets frustrated when they do not complete assignments, are absent, or violate rules. She would like to improve in the area of technology and sees herself as a lifelong learner. Elaine's professional identity is strongly connected to her ability to prepare students who are responsible for success on a standardized test, her perceived obligation to prepare them to be responsible adults, and her accountability to her peers.

Vignette #5: Connie "Hard for me to change"

At the time of the study, Connie is in her nineteenth year of teaching and her first year teaching in her school's freshmen academy. This was the first year of the academy implementation. The change has impacted the way the schedule is organized. Connie is adjusting to teaching Algebra I in a yearlong format rather than the block schedule that was used for nearly fifteen years. She feels somewhat uncomfortable with the format. She is concerned that her adjustments to the pace of the course are affecting her ability to help her students get the "depth that they need."

Connie frequently describes her teaching ability and style in a self-deprecating manner. She feels she is not "creative." She states, "as far as different strategies, I am not very good." She says this as she describes using mostly lecture, with occasional group work, in her classes. She shares that she does not vary her instruction and acknowledges this may affect students who are not visual learners. The change to the academy model has emphasized the need for different types of instruction, but she feels unable to implement these strategies in her classroom. Connie acknowledges this as an area where she needs to grow. She does not seem unwilling to learn, but she expresses a lack of knowledge in this area. Although Connie would like to learn more about discovery learning and how to integrate technology, she states "unfortunately, I'm a person that I've done it this way for this long so it's hard for me to change. I don't like to change." She also believes her students don't have the interactive skills or math skills to be successful with these types of instruction. Connie describes the majority of her Algebra I students as motivated to work in her class because they "know they have to have this to graduate from high school."

When I asked Connie how her class would change if Algebra I had no EOC, she laughed and replied, "in a perfect world." Connie shared that she would adjust her course by focusing more on the topics she feels students need to know to succeed in the progression of the math curriculum, particularly in Algebra II. Connie feels she does not have any "wiggle room" within the confines of the Algebra I pacing guide, which is developed at the school level and used by all teachers. She views the accountability of EOC tests as a way to ensure all students have learned "at the same level."

Because Connie was initially certified to teach in middle school, she added high school certification to her certificate through the High, Objective, Uniform, State-Standard of Evaluation (HOUSSE) process. This route to becoming highly qualified under NCLB was available to veteran teachers who did not hold a full North Carolina license to teach their core subject area until April 1997 (NCDPI, n.d.). This makes her feel that although "I am now federally certified to teach nine through twelve, I am not qualified to teach nine through twelve math." This statement again reveals Connie's lack of confidence that is evident through much of the discussion. She feels her math ability has a limit. Connie expresses she is "not the most gifted mathematically" although she believes she does a good job with the curriculum in Algebra. She says, "I cut to the chase and give them what they need."

Connie describes decisions made by her department based upon how many preparations a teacher would have and eliminating pre-algebra classes because no one wanted to teach them. In discussing the elimination of the pre-algebra classes she states, "Because our attitude is, if they're going to fail a class, let's fail a high school class, not an eighth grade class…it would have given people three and four preps." Unlike her colleagues, Connie prefers teaching Algebra I over other courses.

Throughout the interview, Connie references how high the math scores are in her school. This is a source of pride for Connie. She is proud to be a part of a department that produces the highest scores "in the county." Her department collaborates by sharing resources and discussing their teaching. The change in her work environment necessitated by the implementation of the freshmen academy has been difficult for her department because they are no longer located on the same hall. She describes the work environment

as "strained" due to the changes. Connie frequently references the test scores to support her claims of the strength of her department. She describes a department that has strategically developed test preparation and review in the format of the EOC.

Connie feels a strong accountability to her peers to do well on the EOC. When she describes EOC performance, it is frequently in terms of her performance, rather than her students' performance. The department has created a mechanism for keeping low-performing students from testing. Algebra I is broken into two courses called Foundations and Algebra I. The teachers are accountable to one another for keeping students whom they believe are not ready to pass the Algebra I EOC in Foundations. I asked her how long a student could conceivably stay in the Foundations portion before being given a chance to move to the tested Algebra I portion and she replied, "forever." Perhaps the most revealing of her strong focus on teacher and peer relationships in relation to her professional identity is her response when asked who she felt she had let down when she described an "off year" in test scores and how she felt she "had let everybody down."

> My colleagues, of course you know there's, and of course you know even to an
> extent, even the school because all of that plays into the formula for our bonuses.
> So when we are not performing well, then we could be keeping other people from
> getting the money.

During this discussion, Connie never referenced her students.

Connie describes the "kids she hurts for" as those who try to do the work that she believes will never pass the EOC. She speaks specifically about a student she remediated who had to take the test three times, yet never passed the EOC. In reference to the scores

she says the scores "never budged, and it ain't never going to budge." I asked her to share

why the student's scores would not move. Connie spoke at length about the student's

background and learning disability as key factors in her lack of success on the EOC.

Connie addresses the belief that all students can learn. She asks, "Can all students

learn at the same level? No, I don't think so." She believes no matter how hard teachers

and students work, there are some students who will not be able to pass the Algebra I

EOC. Yet at the same time, Connie believes she has a strong impact on whether her

students are successful on the EOC or not. She also believes their motivation to work

inside and outside of class is critical to their success. Even as she acknowledges some of

her students face numerous challenges at home and in school, Connie believes students'

choices affect their success. Consequently, the amount of energy she is willing to expend

on her students is contingent upon their motivational levels.

> And I guess I'm sometimes guilty of sacrificing the one, for the many. If
>
> somebody just clearly, does not after a while, does not want to participate, does
>
> not want to do, then I'm going to let them hang themselves. That's not very
>
> educationally appropriate. But I tell them all, I say it's your God-given right to fail
>
> if you want to take it. If you want to be successful, I will do my best to help you
>
> be successful.

Connie does describe trying to instill confidence in her students that they can do math.

She believes students "don't mind being in my class" and hopes they know she cares

about them and wants them to succeed. She provides extra help for her students, but is

comfortable expressing certain limits to what she will offer. She states, "They are not my

whole life, you know, and I do have limits." She states she is not paid for extra help sessions.

Connie believes her colleagues would say she is organized and friendly. Even though Connie describes a difficult start in her early years of teaching when she frequently wanted to quit, those feelings do not occur as frequently as "I've gotten better as a teacher." She feels pride in being a teacher and believes this is what God has called her to do. However, she expresses her calling as contingent upon her students' willingness to work.

> I mean, is it all He's called me to do? No, but I think this is where He's called me to be for my career and these kids are my mission. And I want to help as many as I can. I can't help them all, but I can help as many as I can, as many as want to be helped.

When her students do well on the EOC, Connie describes it as a validation that she has done what she was supposed to do as a teacher in preparing her students for the next level of mathematics. She does express being thrilled for her students as well as herself when the class does well. When her students do not do well, she says she does not dwell on it and likes to try to move forward and think about what she needs to do better. In one example, she says she realized she focused on the wrong topics and had not aligned her pacing with the revised curriculum. Regarding her disappointment over test scores, she tries to keep it in perspective. She says, "I do feel like this job's for me, but it's not all that I am."

Connie sees herself as a teacher with room to grow professionally. Although her "presentation is not as interesting or lively" as she would like it to be, she does feel she

now has better classroom management skills. There have been tough times throughout her career when she wanted to walk away, but she believes she has too much time invested in teaching to leave. She states:

> I'm not qualified to do anything. I don't have any skills…so I couldn't go do a whole lot else. But the--it's just once you get in, you're so far in that it would be hard to start over.

Even though the test scores in her school may be inflated because many students never progress to the tested portion of the Algebra I structure employed in this school, Connie's discouragement with her lack of creativity is offset by her pride in being a member of this math department.

Connie's professional identity is strongly positioned in a teacher and peer orientation, rather than a student orientation. Her professional identity is based in the context of high-stakes testing and accountability and is primarily linked to her relationships with other adults in the school. She feels a strong sense of accountability to peers with regard to doing her part to earn financial bonuses based upon test scores. She describes being called by God to teach even as she questions what else she could do if she did not teach, and limits the students she is called to teach to those who want to learn. The validation of her practice by test scores gives her a measure of confidence she does not feel from other criteria she uses to assess her teaching performance.

Vignette #6: Brenda "Give them all you've got"

Brenda is a veteran teacher, "retired and rehired," with 34 years of experience. The principal recruited Brenda to return to work for this purpose. Once, she guided middle school "high-flyers" through Algebra I. At the time of the study, she teaches in a

freshmen transition academy working with students who struggle to pass Algebra I and to stay in school.

Brenda believes the EOC "drives everything we do in the classroom." Brenda relies mainly on lecture and practice and states her instructional choices are driven by the EOC and the composition of her classes. When she taught Algebra I to students she calls the "high-flyers," she incorporated more hands-on activities. Now, she believes that she must be the deliverer of material in a time-effective manner that leaves little room for creativity and exploration in order to get them ready for the EOC. Brenda is confident in her practice and possesses a strong sense of teaching efficacy. She believes her students' success depends upon how she teaches even though she recognizes the many life challenges her students face. The risk factors and challenges her students face, including not being motivated to attend school or succeed academically, do not remove Brenda's resolve to teach her students. In fact, these factors seem to challenge and motivate Brenda to work harder to help her students be successful.

Brenda looks for the worth in every child. Even as her teenage students sit in rows of neatly aligned desks in front of her, Brenda envisions the child inside with a secret life the teacher might not know. Having had a mother who was abused in foster care, Brenda wonders if these children go home each afternoon to families who do not treat them well. Brenda is frustrated by the elements of the system that withhold information she might need to help Jerome who got arrested last night trying to impress the wrong crowd or Jessica who had to go to a domestic abuse shelter after things went terribly wrong at home. She believes knowing these things would help her connect with her students and tailor her strategies to exactly what they need from her.

Brenda does not give up on her students and although she views herself as kind and caring, she does not allow her students to misbehave in class. She has developed a repertoire of strategies from many years of practice and she is proud to have taught several generations of students within one family. Her longevity is a source of pride, as is her sense that her administrator values her expertise to the point that she makes some allowances regarding arrival time each day just to keep Brenda working at this school. Brenda is mindful that similar allowances are not made for other teachers.

Brenda is a special teacher and she knows this because her principal tells her so. She is a trusted mentor to the teachers who hone their craft down the hall from her and vent their frustrations to ears that never seem to tire. Brenda knows just how much it takes to do the job and she is not shy about telling you that if your heart is not in teaching, you need to get out.

> You've got to be able to give them all you've got because if you don't, there are some of them who are not gonna make it. And if you give them all your heart and soul, some days they step on it. Some days you pick up your heart and it's all squished up. You try to dust it off, put it back in, and give it back to them tomorrow.

Brenda became a teacher after she did not win a scholarship that would have allowed her to study medicine. She believes teaching was the path she was meant to take and that God used the experience of loss to help her find her true path. She can sleep at night. She can leave it all at school because while she is there, she gives it her all, heart and soul. Brenda believes there is no other way to teach. Brenda believes she is where she is meant to be and God knew who would need her to be there.

Brenda's professional identity expressions reveal she views her work with students to be the primary focus. Even as she describes how the pressure of the EOC drives "everything we do in the classroom," it is in the context of preparing her students for their success. Although her professional identity presents with a student orientation, Brenda's instructional practice reflects a teacher-centered approach she believes is demanded by the EOC. She never refers to test scores in relation to herself, or how she is performing as a teacher. She believes she is assigned to the students with more challenging needs and risk factors because her principal and others recognize the expertise she has developed over her many years as a teacher. Her professional identity is positioned in her ability to help students meet the demands of accountability while not losing sight of the affective, or emotional, nature of teaching. She is genuinely concerned with her students' emotions, feelings, and lives beyond the classroom. Her personal evaluation of her success with students, and her assessment of who she is as teacher, is measured in areas not quantified by test scores.

Vignette #7: Nathan "Meet me halfway"

Nathan is a teacher with six years of experience at the time of the study. He entered the teaching profession after exploring other careers, including healthcare and the ministry. A nod to his spiritual roots, he "extends grace when grace is needed." Nathan believes his students would describe him as ridiculous, hard, weird, fair, out of the box, and funny. His colleagues would describe him as unconventional, competent, personable, fun to be around, and interested in people. It is apparent throughout our conversation that Nathan likes the way others would describe him and he highlights classroom activities and other behaviors that support the descriptors he attributes to others.

Nathan feels he is viewed as a teacher who is capable of teaching any math subject, and he enjoys being assigned a variety of classes. He enjoys using "multiple modalities" to teach and he believes he would use the same instructional strategies if there was no EOC. The only change he would make without an EOC is to eliminate standardized test practice, which would create more time to explore topics that interest his students.

Confident in his practice, Nathan believes he has developed a better understanding of what students need to know across the continuum of high school math courses because he has experience teaching multiple subjects, such as Algebra I, Geometry, and Algebra II. He refers to teaching Algebra II as a "privilege." He reluctantly describes Algebra I as my "least favorite to teach." Still, Nathan would rather have the variety he currently experiences in his teaching assignment even if it means he has to teach something he does not particularly enjoy. Nathan says "strengths" are considered in the determination of courses assigned to each teacher; he does not reference EOC performance as a determining factor of strength.

Nathan describes his department as one of mutual camaraderie that is committed to excellence. His department is supportive, collaborates voluntarily, and is "down to business." Department members are knowledgeable of one another's teaching through mutual classroom observations. Nathan is glad his department is not forced to plan together as he knows other schools do. He likes having the autonomy to determine what he needs to do for his students "on the fly." He makes the calls; he makes the adjustments.

Nathan knows his students and their strengths and weaknesses without needing his district's benchmark tests, which he does not value. He seems almost insulted by the notion that a benchmark test could tell him something he does not already know about his students. He believes accountability has created unnecessary paperwork where teachers have to document they are doing their job.

> Sometimes I don't think that they, the people in charge, their intentions are maybe, well-meaning, but they don't think through what is the reality of how that is going to hit the ground for the guys and girls who are in the trenches. I mean, we are already putting in mega hours just to help these kids succeed. What else do they…what do they want us to do? What other hoop do they just want me to jump through to show that I am doing every thing I can to help these kids succeed?

Nathan feels pressure from the district regarding EOC performance and because of that, his students feel some pressure from him.

> You're either going to learn it or you're not going to succeed. Those are your options because I have a test [EOC] breathing down my neck too…Their performance determines how my administrators perceive the quality of my instruction.

He believes test anxiety is a reason students may not perform as well as he expects on the exam.

Nathan believes the learner has the responsibility to learn. He has little patience with those students who do not try and a great deal of patience for those who do try. He cannot spend his time on the one who will not try, when there are "29 other kids who are willing to meet me halfway." Nathan does not give up on kids easily, but he does believe

that "students have the right to fail." He wants to help them, but once they make that choice, he respects, or accepts, that they have the right to make that choice and focuses his attention on the students who make the decision to be responsible for their own learning. He rationalizes this choice to let the one student go by his initial attempts to motivate, his confidence in his ability to make learning fun, and his communication with parents and the student about his desire to help as well as his expectations for student performance. He does not take their lack of motivation personally in the sense that he sees it as a temporary state and continues to offer tutoring for those students who may decide to change their unmotivated ways. He states he would tutor even if he were not paid for it, which he is.

To Nathan, learning is a partnership between the student and the teacher. Even so, he cites the quality of his teaching as a reason his students may or may not be motivated to learn. He owns the responsibility of motivating his unmotivated students. He believes he has a powerful impact as a teacher on students' learning and his comments evidence his deep beliefs and commitment to their success. He feels strongly that he is preparing students for life, in addition to teaching them a subject.

Nathan's professional identity reflects a strong student focus, which is evidenced by his choice of instructional strategies and how he describes his teaching efficacy. Nathan believes he can be successful with all students even as he acknowledges some may not want his help in succeeding, and he works hard to engage students in ways they will enjoy their class and learn at the same time. Although Nathan references the EOC and pressures he associates with the focus on high-stakes testing and accountability within his district, the EOC does not dominate his thoughts or his choices related to his

work. His students' scores do not define him, although he acknowledges his administrators use EOC results to evaluate his teaching performance and he feels some pressure as a result.

Vignette # 8: Lisa "Out of my control"

Lisa entered the teaching profession after a career in the military and has been a teacher for fifteen years with only the last three years at the high school level. She is certified to teach middle grades math and therefore can only teach students up to the ninth grade. She previously worked with academically gifted students in middle school and felt that was a good fit for her. She shares that she knows she is not suited for the "learning disabled kids or the slower kids."

Lisa desires to feel in control of her classroom. She enjoys working with motivated students, but is frustrated by students who don't give their best effort. Lisa does not understand why students lack motivation. She tries to help them by going over material, but believes sometimes you "have to walk away. There's not really anything that you can do." Lisa has a very low sense of teaching efficacy. She believes students' academic success and EOC performance depend mostly on their motivation. She does not feel she knows how to motivate the unmotivated students. Most importantly, Lisa feels her personal impact on her students is minimal. She teaches what the district requires her to teach and feels certain the other teachers do the same. "I can only make them do so much. I can only teach to the best of my ability. I can't make them learn it. And that frustrates me because I feel like I am doing everything, and giving them everything they need, but if they don't meet me at that halfway point, then it's out of my control. I hate not being in control." Lisa believes her students find her demanding and mean. She

acknowledges that she can frequently be heard "fussing" at her students. She holds them accountable by grading every assignment she gives. Because her students take Algebra I over two courses in an Algebra IA/IB set up, she does not really expect them to perform as well on the EOC as students who take Algebra I in one semester.

Lisa feels teaching is stressful--even more stressful than her previous career, which is routinely listed among the most stressful careers available. Lisa feels some stress comes from wanting her students to perform as well as other teachers' students on the EOC.

> I think a lot of teachers feel the same way I do about the EOCs. Again, we only
> have so much control over how well our students will do. And we kind of resent
> the fact that we are judged on that when there is only so much we can do.

When asked to explain what she meant by judged, she responds, "judged as a teacher" and explains, "you did a good job because all of your students passed the EOC. Or you must have done something wrong because you had so many students who didn't pass."

Lisa's professional identity is strongly positioned in herself, her ability to control her work situation, and her frustration with dealing with unmotivated students. Lisa struggled when asked to describe how she sees herself as a teacher. She believes her military background helps her to stay intently focused on the lesson. Lisa never mentions any aspect of teaching regarding the needs of the learner, or expresses any understanding of why her students are not motivated. Lisa's professional identity is strongly connected to her focus on her ability to deliver the lesson and her belief that students should be motivated to receive the instruction as she delivers it.

Lisa's lack of control causes her to consider whether teaching is the right profession for her and she has considered leaving the classroom. In Lisa's opinion, a student's job is "you sit in this seat, you learn the lesson, you ask questions, you do your work." Lisa continues to say there is "only so much you can do." This statement reflects her low sense of teaching efficacy, particularly with the difficult or unmotivated students. Only once in her comments about being frustrated by feeling unable to motivate her unmotivated students did Lisa seem to express any responsibility for their lack of motivation. She said, "I feel like it's partly my fault because I am not able to reach them, but I don't know how." Lisa seems to be overwhelmed by her feelings of frustration and discouragement with her work.

Vignette #9: Donna "I blamed myself"

At the time of the study, Donna is in her first year working as an instructional support specialist after sixteen years teaching middle and high school math. Fourteen years of her experience were at the high school level. Donna's work environment was positively impacted by excellent working relationships within the math department. Leaving the classroom was a difficult choice for her and she still questions whether she made the right decision. She misses having a direct impact on students. Sometimes she feels isolated from the colleagues she once worked with so closely. Her principal did not want her to leave the teaching position because he felt she was doing such a good job. Donna plans to return to the classroom someday and hopes this experience out of the classroom gives her the ability to reflect on her own practice even as she works to help others improve.

In her Algebra I classes, Donna used hands-on activities and games to engage the students. She also incorporated graphic organizers and scaffolding strategies to help students become more responsible for their own learning. Although she enjoyed teaching Algebra I, it was not her favorite course to teach. Donna believes some students are not developmentally ready for Algebra I in high school. Most recently, Donna was paired with another teacher to work with Algebra I students who needed more time and intensive support to complete Algebra I successfully. Donna feels the most reward when working with students who have never been successful or motivated in math class before and who begin to develop greater confidence and skill in her class. She does "everything under the sun to try to work with them." Her students enjoy her because she is patient, makes learning fun, and explains things well.

Without an EOC, Donna would use the same instructional strategies, but would move at a slower pace when her students require additional time to master a topic. She believes the curriculum is a "mile wide and an inch deep" and would like to explore fewer topics in greater depth. Although Donna believes EOCs keep teachers focused and provide feedback, she thinks it made her feel pressured. She shares:

In a sick kind of way, I liked them because it made me push myself…to make sure that I've covered everything and make sure every student is learning, each and every one…whereas I don't know. I don't know about myself. I think I would have really pushed myself with each student but I think some teachers would be tempted to, you know, little Johnny isn't motivated, let him sleep over in the corner kind of thing. I think the EOC does help remedy some of that. But on the other hand, we are definitely teaching to the test. I mean, there's no way around it

when you've got high stakes testing and you know, I don't know how it is at other

schools but I know when I was teaching at [School G], every faculty meeting,

something came up about EOC, EOC, and it was a lot of pressure. I put a lot of

pressure on myself. If a student's score didn't turn out well, I blamed myself.

That's just how I was…Some teachers can say, well I did the best I can, you

know, the best I could and that's how it ended up and they can go home and sleep

at night, but I wasn't that way… I put a lot of pressure on myself.

In addition to the pressure Donna says she put on herself, her principal's actions often

placed additional pressure on her. He distributed charts showing the exact score a student

needed to make in Algebra I to meet the growth expectations set by NCDPI. She says:

Being a person who puts a lot of pressure on myself, it freaked me out… It just

made me put more pressure on myself and when I got my scores, I mean they

were awesome scores, but some students hadn't shown growth so then I beat

myself up for that whereas in the past I would have been, wow I got a good set of

scores.

Donna believes she was assigned to teach EOC courses because she was able to

perform well on the EOC. This made her feel proud that her principal had confidence in

her, even though she felt pressure. She says:

Sometimes it got to be a little too much though. Sometimes I thought, I would like

to have one class where I didn't have this constant pressure hanging over my head

even though I don't know that I would do a whole lot differently, but you always

have that in the back of your mind. How am I going to look on paper? You know,

because your name is at the top.

Once she was very disappointed in what she says were the "worst scores I've ever seen in my life." As a result, she cried all weekend. She still has not fully dealt with her emotions over the results that occurred nearly three years ago. Donna kept going through all the things she should have done and blamed herself for the low scores. Most of all, "my name was still at the top of that page and I was embarrassed…by that horrible set of scores with my name at the top floating around the Central Office." The tremendous amount of pressure she put on herself regarding test scores is one reason her family encouraged her to take a break from the classroom when her current position became available.

Donna believes her colleagues and administrators would describe her as a good teacher and faculty member because she gets along well with others and is willing to help other people out. She always wanted to be a teacher and as a child set up a classroom for imaginary students. Her greatest reward in teaching has occurred when students return to tell her "I just want you to know you impacted my life…I am what I am today because of you." She sees herself as an encourager, an optimist, and a helper. She is concerned with each individual student and developed greater ability to meet the needs of individual students throughout her career. In the early years, she designed lessons for the whole group. As she "got better at teaching" and developed the ability to modify her lessons, she was able to differentiate instruction. She says this change reflects a shift in her instructional practice from a focus on teaching to a focus on student learning.

For years Donna thought she was best suited to work with honors students and always enjoyed teaching the honors level of Algebra II. After her most recent experience with at-risk and low-performing Algebra I students, her professional identity has been

changed. She recognizes her ability to impact students that she believes may need her more than higher-performing students need her. Her description of her previous instructional practice reveals a concern and dedication to meet the needs of every learner. Donna's identity, primarily positioned in a student focus, is situated in the indications she makes to herself about her instructional practice and her worth as a teacher, which she measures in part by her students' EOC scores. She possesses a strong sense of teacher efficacy, particularly in working with struggling students. Her students' test scores validate her sense of worth. Having her name linked to a set of test scores is a strong motivator, and source of pressure, for Donna. Her principal's praise for high EOC scores plays a role in the indications she makes to herself regarding her professional identity.

Vignette #10: Jennifer "Someone who cared"

Jennifer is a fourth year teacher who spent the first two years teaching middle school. She would prefer to teach another subject area and is waiting for a position to open at this high school. She teaches mostly Algebra I and Foundations of Mathematics, a course students take prior to Algebra I.

Jennifer uses warm-up activities to start class each day followed by a review of homework. She gives her students notes and examples daily and occasionally uses games in her instruction. To prepare her students for the EOC, Jennifer uses the sample items from NCDPI for review. If there were no EOC, Jennifer would eliminate using multiple-choice items as often. She would like to include more applications and explorations, but finds it difficult to include these activities on the "strict timetable" of the Algebra I pacing guide her department uses. Jennifer believes her department works well together and collaborates regarding instruction.

Jennifer was disappointed with her students' EOC scores from the previous year, her first year teaching Algebra I. She believes some of her students did not put forth their best effort on the first administration of the test because they knew they would have an opportunity to retest. She says other students did not do as well as they could have on the EOC because they were absent too often. In response to her dissatisfaction with her students' EOC performance, Jennifer has prioritized her curriculum to focus more on the material that is tested. When I asked Jennifer to talk about factors that caused her students to pass the EOC, her response indicates her low sense of teaching efficacy. She states:

> I'm not going to say I think it was me at all just because it probably was not, but just the ones who actually cared enough to really try and be here and do what they were supposed to when they were here.

Jennifer always wanted to be a teacher and played school as a child. She likes students and values education. Jennifer is happy about her decision to become a teacher and is proud to be in this profession. As a student, she held her teachers in high regard and hopes her students will feel the same about her. She speaks with compassion about students who have little support at home and feels this makes her role as a teacher even more important in the lives of these students. Jennifer tries to work with her students who are not motivated; she acknowledges there may be many reasons for their lack of motivation. She does not feel confident in this area, another indicator of her low sense of teaching efficacy. She seeks ways to help them because she wants to make a difference in the lives of her students.

Jennifer does not believe all students should be required to take Algebra I. There are students who she feels are not capable of passing, no matter what amount of effort

they put forth. She also does not believe in using standardized, multiple-choice tests because she believes they do not always reflect what a student really knows and can do in mathematics. She gives examples of students who pass the EOC when their teachers do not believe they are proficient and students who do not pass the EOC due to test anxiety or other factors. Her student teaching experience with academically gifted students did not prepare her for the reality of working with students with learning disabilities and other academic risk factors.

Jennifer feels a strong pressure to raise test scores that originates from her principal. There is a strong emphasis on testing through emails, faculty meeting discussions, and requiring EOC teachers to use multiple-choice items to prepare students for the format of the EOC. Because of this pressure, she has explored other job opportunities.

Jennifer shares very little in regard to how she believes others perceive her and frequently answers "I don't know." There is an expressed uncertainty in how her students, colleagues, and principal would describe her. Jennifer feels she is weak in her subject area and has room for improvement. Her change from middle school to high school causes her to feel like a new teacher all over again. Although her evaluations have been "good," she only expresses vague perceptions of how her principal regards her practice. She gets along well with her students. Jennifer believes she will always strive to find ways to improve as a teacher.

As a relatively new teacher, Jennifer's identity is still forming and is based upon how she hopes her students will perceive her. Her identity could be described as having a strong teacher, or self, orientation, because she is still focused on becoming the teacher

she holds as the ideal. She describes the perfect teacher as "someone who cared…and pushed you to do your best, but at the same time they could carry on a conversation with you, beyond just education, and you could learn from it in things, just the grammar that we learned or the math problems, that we did." The pressures of accountability may work against the identity Jennifer holds for herself. Jennifer desires to influence her students beyond the context of the accountability of a high school EOC test. She believes the "greatest responsibility is just to make sure that they're prepared for life in general." Jennifer wants to teach students, not a subject area. The content of her instruction is secondary to her primary desires and motivation for teaching.

Vignette #11: Allison "Middle of the road"

Allison is an Algebra I teacher with six years of experience. She has primarily taught Algebra I throughout her teaching career. One of her Algebra I sections consists mostly of ESL students.

Each day she begins class with a review, homework questions, and a warm-up. She explains new concepts and gives students notes and then allows them to begin their assignments in class so that she can provide help as needed. She allows students to work in groups of their own choice to help with language barriers. She gives students lengthy assignments because they need to practice. Allison also allows her students to redo assignments and worries that she may be giving her students too many chances. If there was no Algebra I EOC, Allison would incorporate more life skills opportunities and relevant math skills instead of following the Algebra I Standard Course of Study so closely.

Allison feels pressure from her school administrators, particularly her principal, to maintain high EOC scores. She believes teachers are viewed as not doing their job if test scores are low, no matter what the students are doing or with any consideration of the ability level of the students. Allison does not like that EOC results that reveal the proficiency pass rate by teacher are shared in the school. This disclosure makes her feel the members of her department must compete against one another, potentially damaging their sense of collegial support. Allison does not like to compete with colleagues.

Allison believes she has been assigned to teach Algebra I because of her prior experience teaching the course. As one of the only Algebra I teachers with prior experience, she was expected to take on a leadership role and assist with materials and pacing guides. Allison has been told she relates well to low-performing students. This feels like a compliment sometimes, but not always. Allison would like to try working with a higher-level math, but feels she has not been given a chance.

Allison feels requiring students to pass the Algebra I EOC is not fair to all students. She believes some students are incapable of passing no matter what. Allison becomes frustrated when she has tried everything she knows to do and her students are either not successful or not willing to do the work. She believes staying after school to provide one-on-one tutoring or just helping them to realize she cares about them often motivates her students to work harder in class.

Allison believes she positively impacts her students' performance on the EOC by giving assignments in the format of the EOC and using vocabulary that is consistent with the EOC so they will be comfortable with the format. Allison incorporates EOC weekly reviews into her instruction. There is a cumulative aspect to every test. She believes her

students' weaknesses in reading comprehension negatively impact their EOC performance.

Allison expresses disappointment with her students' EOC scores from the previous semester. She feels she did not do a good job with them and the Exceptional Children (EC) inclusion teacher did not provide appropriate academic support. Her students were unmotivated and she was unable to motivate them. Her school administration wanted justification for the number of failures. Allison felt she did not teach to the best of her ability. She wished she had been able to "make them work harder than they did." This bothered her to the point that she considered leaving teaching.

Allison says teaching is "not a fabulous job, but somebody's got to do it." She feels a strong sense of job security that she does not think exists in other fields. Overall, she enjoys her job. Some days, she returns to work simply because "I've got to pay bills." She fears her students will take advantage of her if they know she likes them. She enjoys high school students and does not feel she is suited to work with younger students because of her sense of humor and use of sarcasm. She believes younger students perceive their teachers to be heroes, but older students may not feel that way. Some days she has to be "motherly," although this is not her preference. She wants her students to become more responsible. She does work after school that she is not paid to do, but considers it an expectation of the job. Allison is concerned that students who fail the EOC on the initial administration, but pass when retested, may not be prepared for the next level of mathematics. Allison talks to her department about the way they test students too much. They also discuss how much pressure they feel as a department from

their principal. Allison believes more emphasis for students to pass is placed on EOC teachers than non-EOC teachers.

Allison believes if your scores are low, your EOC class will be taken away from you. Allison thinks this is unfair because she believes test scores are dependent upon the "type of kids you had." Allison views her EOC assignment as a reflection of her principal's assessment of her teaching performance. She shares that if she were no longer assigned to teach an EOC, she "would feel like I really wasn't a good teacher." She worries she doesn't help students enough when they struggle and is frustrated by not knowing what else to do. Allison sees herself as a teacher who "does care about what they're doing." She says, "I feel like some days I just try to get by and just deal with what I'm dealt with that day. I don't feel like by any means I've done anything special to have a miracle breakthrough." Sometimes she plans to teach for 30 years and other times she wonders what she should do to have something to fall back on if she burns out. She does not want to be a teacher who just comes to work because she has no other options.

When Allison describes how she sees herself as a teacher, she says, "I feel like I am an average teacher. You're nothing special. Don't think I'm bottom of the barrel, but I feel like I am there [pointing]. I am middle of the road." When she worked at another school in this district, she perceived herself in a different way. She says she was always given the higher performing students and she interpreted that to mean she was doing "pretty well." Since moving to her new school she says, "I guess from here, they give me the Foundations kids off the bat, and they filter into Algebra I, so I'm guessing in a way, I might look at that as a step down, so I might just be middle of the road."

Allison desires to be challenged by new opportunities because she has grown very comfortable with her current assignment. Although Allison was not comfortable answering questions about her perceptions of herself, her professional identity seems strongly positioned in a self-focus. She describes herself as modest and says others have told her she does not give herself enough credit. She says she is not a "limelight person." There is a strong connection between what Allison's principal assigns her to teach, particularly whether or not the courses are tested courses, and how Allison feels about herself as a teacher. Allison's professional identity has been altered by her reassignment to her current school and a perceived decrease in her stature in this department as compared to her previous work environment.

The Interactions of Teachers' Instructional Practice, Work Environments,

and Teacher Efficacy in the Context of High-Stakes Testing and Accountability

This section contains a discussion of the interactions of teachers' instructional practice, work environments, and teacher efficacy in the context of high-stakes testing and accountability. The first research question will be answered by examining each factor in a separate section with examples of the interactions woven throughout the section. Teachers' responses about each individual factor provided insight into the indications they make to themselves as a result of the interactions between their instructional practice, their work environment, and their perceptions of their teacher efficacy.

Instructional Practice

To explore the influence of high-stakes testing and accountability on teachers' instructional practice, teachers were asked to describe their current Algebra I instructional practices. Then teachers were asked to talk about any additional instructional strategies

they would use or any current strategies they would not employ if there was no EOC test

for Algebra I. The majority of teachers stated they relied on direct instructional methods,

leaning heavily on lecture, guided practice, and homework to teach the content of the

course. Teachers described limited implementation of projects, cooperative learning, and

discovery learning activities. Other instructional practices described were tutoring before

and after school, communicating with students and parents through web pages, and

allowing students to be retaught and retested.

District 3 trained all teachers in Learning-Focused® Strategies over the previous

two years. According to website of the company that provided the training, the Learning-

Focused® Schools Model was developed "in response to national, state, and local efforts

to increase achievement for all students and to reduce achievement gaps. The Model

provides comprehensive school reform strategies for K-12 schools based on exemplary

practices and research-based strategies" (Learning-Focused, n.d.). These research-based

best practices include essential questions, word walls, collaborative pairs, and graphic

organizers. Participating teachers from District 3, Lisa, Nathan, and Donna, stated they

were expected to use the Learning-Focused® Strategies and that they did in fact use these

strategies in their classrooms. The district expectations strongly influenced the

instructional practices of these teachers. However, teachers believed they would continue

to use these strategies even if there was no EOC, or related pressure, because they

recognized the strategies as best practices.

Teachers also described the influence of high-stakes testing and accountability in

the context of the Algebra I EOC on their instruction. Teachers felt their responsibility to

prepare students for the EOC determined what took place in the classroom. Brenda, for

example, worried that she "would shortchange the kids" if she did not stay focused and "go on toward the test." To prepare students for the EOC, teachers described being certain they covered all objectives that were tested, using sample EOC materials, doing extensive EOC review and preparation, and developing instructional materials that are consistent with the vocabulary and multiple-choice format of the EOC. The environment of an EOC class was focused on preparing students for a test. Teachers elevated this focus over other considerations as a result of the EOC environment.

While most of the teachers described aligning instruction to the EOC in a negative connotation, Elaine felt otherwise. She discussed administrators and other educators emphasizing that an EOC should not require teachers to teach to the test. In her opinion, teachers should teach to the test. She shared, "If there's a test to be given, it needs to be taught…So, I don't have a problem with it. Just let me know what I need to teach." Elaine's strong sense of responsibility to prepare students for the EOC was a primary concern for her. She rationalized "teaching to the test," a practice considered by many teachers and educational experts to be a deleterious outcome of high-stakes tests, as the common sense response to the demands of accountability.

Some teachers rationalized their reliance on direct instructional methods was a result of their need to deliver the curriculum in a time-effective manner. These teachers indicated they would like to use particular strategies in Algebra I that they currently used, or have used, in other non-EOC courses. However, they believed cooperative learning, projects, and other hands-on activities would take too much time. Without an EOC, veteran teacher Brenda stated she would not lecture quite so much and described activities she believed she would use instead.

If I didn't have the EOC, I would certainly do some things differently. I would do

a lot more hands-on stuff. If I didn't get to it, I probably wouldn't worry about it.

But I don't have the option now of not getting to it…We just don't have, I feel

pushed, I feel like I don't have time to do any kind of cooperative learning kind of

things or any kind of, a lot of hands-on kind of stuff.

William explained he did not incorporate as many "real life applications" in Algebra I as

compared to a class he taught that does not have an EOC. He felt the EOC limited the

days available for instruction due to the extensive test review activities. William stated

these activities would require more time than "I have in the context of a test that we are

being told all of the kids have to pass." Angela expressed a desire to incorporate more

"life skills" concepts, like discounts and tax calculations, with her students. Feeling her

ability to do so was hampered by the EOC, she stated, "We are just so pressured to just

teach, get the material taught, so we can get them ready for the test. And I feel like those

opportunities are missed."

The pressures perceived by the Algebra I EOC teachers in their work environment

caused them to employ instructional methods and strategies that they either did not

prefer, or did not believe were best practices, as a result of the indications they made to

themselves about the environment. Additionally, the teachers did not feel a strong sense

of confidence, perhaps related to their teacher efficacy, about how they might implement

some of the strategies they would prefer to use and maintain the necessary level of

student achievement as measured by the EOC. In contrast, Sandy described using hands-

on activities, and other non-direct instructional methods, even though she reported feeling

a great deal of pressure related to high-stakes testing and accountability. Sandy's feelings

of being accountable to her students and to herself as a teacher influenced her

instructional decisions more strongly than the pressure she felt from the state's

accountability system and the high-stakes involved.

Due to the pace at which teachers perceived they must teach the Algebra I

curriculum, they did not feel they had the flexibility to explore concepts fully. Nathan

stated:

> What I would like about not having an exam breathing down my neck is that it'd
>
> give me time to really dive into some concepts that, you know, right now I just
>
> don't have time to take them to the real breadth and depth that I'd like to.
>
> Sometimes it's, "Do you guys understand this? Great, let's move on"—where
>
> other times, we could really stand to do some really in-depth projects. But a lot of
>
> those kinds of investigations take two to three days and you just can't do that
>
> across your curriculum.

Teachers were asked to share how their instructional practice would change if

there was no EOC. Without an EOC test, the significant amount of time built into their

pacing guides for EOC review and test preparation activities would not be necessary;

eliminating these review activities would create additional time to explore concepts more

fully or to add topics the teachers believed their students would find more interesting and

relevant than those in the Algebra I Standard Course of Study. Teachers would also be

able to slow down when students needed more time to master concepts. Donna stated:

> I think with the test, I was more focused on "I've got to get all of this into their
>
> brain" and if we didn't have the EOC, that would take that pressure off. And
>
> maybe I might not get through Chapter 13 or whatever, but I would feel more

confident in them knowing what we had done...I think, if I didn't have the test, I

could have slowed down on some topics the students were struggling with

whereas I just keep pushing forward.

The three District 3 teachers who used Learning-Focused® Strategies were the only

teachers who stated they would not change their instructional strategies if the EOC were

eliminated. They stated they would use most of the same strategies even without an EOC

test, but would adjust the pace of the course.

Teachers' instructional practice choices in a high-stakes environment were also

connected to their perceptions of their students' mathematical ability and future life

options. These choices reflected the interactions between teachers' beliefs, class

composition or work environment, and instructional practice. Several teachers indicated

they would choose different instructional strategies to teach Algebra I if their students

were higher achieving than the current students in their classes. Brenda referred to the

relationship between the composition of the class and her choices regarding instructional

strategies. Her previous experience included teaching Algebra I to academically gifted

students in middle school where she employed more hands-on learning activities than she

used in her EOC classes at the time of the study.

It depends a lot of times on the makeup of the class, a lot of times as to whether I

can use a lot of hands on stuff or whether I have to use lecture or whether I have

to use a lot of paper and pencil. But I do a lot of lecture because my, especially

that 4th period, are so needy that if I just gave them a couple of examples and

turned the problems over to them to work, I'd walk my legs off because they are

so needy. They all would have their hand up. So if I walk through the problems

with them, problem by problem by problem, then at the end I find that I can give

them a few problems for homework.

Sandy described how she used more of a discovery learning process with her students

who take Algebra I in one semester as compared to using a different approach with her

students who completed Algebra I in two semesters.

So in that advanced class I wouldn't necessarily tell them as much. I would expect

them to do a little more figuring out, ask them more higher-level thinking

questions earlier in the semester than I would with the others…The regular

Algebra I class or IB, whatever you want to call it, I would try to move them in

that same direction. But it had to be a lot slower. I would be more likely to give

them a lot of the basics.

District 1 adopted discovery-learning textbooks for Algebra I. Participating teachers in

this district acknowledged they received training on the discovery-learning method and

were expected to use the district-adopted discovery learning textbooks. However, they

did not use them as expected because of the level of student they taught. William stated:

Maybe if you have a high level, aspiring group, it's effective. Those kids are more

inquisitive and will pursue that. But if I gave that textbook to the kids that are

repeating a class, I've tried different things out of there, and they just look at me

with blank stares.

The teachers indicated they used other resources, including old textbooks, instead of the

books the district expected them to use.

Overall, the data indicated teachers felt the EOC limited the curriculum and

caused them to teach only the concepts included in the Algebra I Standard Course of

Study. With the exception of the teachers who used the Learning-Focused® Strategies, the teachers indicated the EOC limited their use of instructional strategies and caused them to rely heavily on direct instructional methods to deliver the curriculum in a time effective manner. Additionally, the Algebra I EOC required teachers to spend a significant amount of their instructional time that they would prefer to use in other ways on EOC review and preparation. Teachers believed they were unable to deliver the curriculum in a time effective manner if they strayed from a reliance on direct instructional, or teacher-centered, strategies. These decisions were related to their concerns about the pressure of the EOC and their sense of teacher efficacy as it related to preparing students for an EOC.

Work Environments

Algebra I teachers' work environments extended beyond the classroom and included the context of their departments, their schools, and their districts. Teachers' work environments were positioned in communities that included public opinion about local schools, relationships with colleagues and supervisors, parental support, and the composition of their Algebra I classes. This section will discuss how teachers viewed each layer in this expanded work environment in the context of high-stakes testing and accountability and the interactions of the work environment with instructional practice and teacher efficacy.

The Algebra I classroom. In recent years, the composition of high school Algebra I classes in North Carolina has changed. Beginning in the 1998-1999 school year, Algebra I EOC tests given in middle school were allowed to count in the student's high school EOC results for both proficiency and growth. Since this change, many school

systems have increased the number of students who complete Algebra I in middle school.

This change has impacted the composition of most high school Algebra I courses.

Higher-performing students now complete Algebra I in middle school. Connie stated:

> By the time they get here and they are in Algebra I, you've taken the top layer
>
> out. You know you've got a group of honors kids that are taking Algebra II….so
>
> you've taken the top layer out…We get them up here that may or may not be
>
> proficient on the [8th grade math End of Grade test]. They send them on up
>
> anyway. You know that's supposed to be a gateway. But the gate doesn't keep too
>
> many of them out.

Most teachers in the study reported many of their students struggled mathematically,

were unmotivated, or had previously failed Algebra I. Several teachers taught

Exceptional Children (EC) or English as a Second Language (ESL) inclusion classes with

another teacher working with them for part of the day. Teachers worried that some of

their ESL students demonstrated algebra proficiency in class, but experienced difficulty

with the vocabulary of the EOC test. Most of the teachers in the study indicated they

disagreed with requiring Algebra I for all students. They stated Algebra I was irrelevant

to the future plans of some students and a more appropriate math should be developed

related to career plans. They believed some of their students were incapable of

successfully completing the course due to academic, or cognitive, difficulties.

Teachers described Algebra I as a challenging teaching assignment due to a

number of factors such as lack of parental support, lack of student motivation, and poor

student attendance. William considered the challenges he faced to be different from

teachers who did not work with this level of mathematics. William stated, "I'm working

with…the lowest level of math we basically teach here." Several teachers stated their students' difficulties with reading comprehension often hindered their performance on the EOC and expressed concern about whether or not the test performance actually reflected the students' algebra knowledge or reading ability. The demands of the EOC work environment, particularly for teachers who worked with students they feared would not be able to demonstrate proficiency on the EOC for a variety of reasons, interacted with how teachers perceived external, or predetermined limits, to their teacher efficacy. In some cases, their perceived teacher efficacy was low due to the nature of the course they taught and the academic struggles their students faced.

The nature of the Algebra I classroom changed again in the 2005-2006 school year, when the revised North Carolina Standard Course of Study (SCOS) for secondary mathematics was implemented. The revised SCOS no longer included Algebra IA and Algebra IB. These two courses, previously included in the SCOS, split the Algebra I course into two parts. Students taking the Algebra IA/IB option were awarded a credit for successfully completing each of the courses, while other students earned only one credit for the same content if they completed Algebra I. If schools wanted to offer the Algebra IA/IB option to students who required a slower pace, schools were directed to award a half credit for Algebra IA and a half credit for Algebra IB. Students could still take the EOC test at the end of Algebra IB. Schools were encouraged to offer this option to a limited number of students with special learning needs. However, even after the IA/IB option was removed from the SCOS, schools were still using the old model, just under different names. They awarded full credit for each half of the course. School C calls the first half Foundations and the second half Algebra I. Sandy described how Pre-Algebra

and Algebra I actually comprise School A's version of the IA/IB model. She described

the practice as "playing the word game with the state." This practice can have an impact

on Algebra I test scores by keeping low-performing students in a non-tested course.

Students must pass the first portion to enroll in the second, and tested, half of the Algebra

I curriculum.

Elaine viewed her principal's decision to continue to divide the Algebra I course

into two separate courses as an act of support for the EOC tests and the teachers assigned

to teach them. Elaine stated:

> The dividing it up is [supportive] more than anything because if the student is not
>
> able to take the Foundations, the IA part, and successfully complete it, they get to
>
> do it again. Where if it was a one-semester course and they did not have the basics
>
> and you could not reinforce—the concepts have to be mastered as opposed to just
>
> coming and taking the course—then we would not have the test scores we have
>
> now. If we had to take and test everybody in the 9th grade for Algebra I the first
>
> year, we would be in trouble.

Employing this course sequence had advantages and disadvantages for students and

schools. It allowed teachers to slow the pace for students who needed more time to

master the concepts of Algebra I. However, the Algebra IA course, by any name, often

acted as a gatekeeper to ensure weaker students were not enrolled in the tested section

until they had proven mastery, or at least competence, of the first half of the Algebra I

curriculum. Giving students two academic credits for what is defined in the SCOS as a

single course distorts the amount of math credits a student has earned toward graduation

requirements. Depending upon perspective, it can be viewed as a way to circumvent the

measures of accountability or a method to slow the pace of the math curriculum in order to promote learning. Although the state eliminated the IA/IB model, it continued to exist under different names in seven of the eight schools represented in the study.

Some participants, and members of their departments, viewed the Algebra I course as a less desirable teaching assignment for various reasons. Connie stated her colleagues did not want to teach a course composed primarily of ninth grade students. Lisa reported her colleagues have told her they preferred not to teach EOC courses, like Algebra I, so that they had greater control over the pace. Nathan stated even though teachers in his department had their individual teaching assignment preferences, they were in agreement as a department that "you're going to carry the weight across the department for the lower end classes that people, you know, don't necessarily want as much of…For the Algebra I, we all share the responsibility of that." Everyone in his department taught either Algebra I, or an Introductory Math that precedes Algebra I for students who needed two semesters to successfully complete Algebra I.

How did teachers feel about being assigned to teach Algebra I? Most teachers reported they enjoyed teaching Algebra I. Brenda and Elaine said they loved it. Unlike her colleagues, Connie stated, "I like teaching Algebra I. I like the material and I like seeing the kids be successful. I like to see them get off to a good start." Although several commented they liked the content of the class, Nathan stated it wasn't his favorite because it was so much of the "nuts and bolts" and more difficult to get into applications or math in a real life context. John did not mind teaching Algebra I, but he wanted the opportunity to also teach higher level or honors courses. Similarly, Allison had been told she was teaching several sections of Algebra I that were composed mostly of lower level

students because she related well to them. Allison stated, "I could possibly relate to upper level kids too, if I was given the chance." For Jennifer, teaching math was not her preference and she shared that she wanted to teach in her other area of certification in a non-EOC course.

Although they enjoyed teaching the course and working with their students, some teachers acknowledged the pressure they feel associated with the Algebra I EOC work environment is a factor in how they feel about teaching Algebra I. The pressure teachers felt in the work environment to increase test scores or to maintain pace with the school or district-developed pacing guides that were monitored by administrators caused some teachers to continue moving through the content even when they knew students did not understand the material. Nathan referenced the pressure of the EOC "breathing down my neck" twice during the interview. Donna wished for "one class where I didn't have this constant pressure hanging over my head." Every teacher mentioned pressure to some degree when discussing the Algebra I EOC or the accountability associated with the course.

When teachers discussed the environment of the Algebra I classroom, they made frequent references to feelings of stress and frustration. These emotions were attributed to several sources. For Brenda, frustration originated with others in her school or district whom she perceived as withholding important information that she believed would help her provide better academic and emotional support to her at-risk students. Teachers were frustrated with state accountability requirements they believed try to make all students the same and failed to treat students as individuals. One teacher cited frustration at seeing higher-level students bored by the slow pace necessitated by struggling students. In

District 3, Nathan and Lisa acknowledged the increased paperwork and documentation of student performance associated with accountability created stress for them. Lisa described how she sometimes felt in connection to the demands of teaching in the current environment of accountability.

> I know that every year about this time I start feeling that overwhelming, this is it—I can't do anymore. I've given my last drop of blood. This is my last year. So I feel that just about every time, every year about this time—sometimes earlier, sometimes later… It's so hard to be a teacher, with all the paperwork, and the accountability, and the stress you put on yourself to always do well.

Some teachers expressed frustration at not knowing how to help some of their students succeed in Algebra I, particularly the lower ability and unmotivated students. Lisa's frustrations with her perceived inability to reach students who are not willing to meet her halfway and give up too easily were rooted in her inability to change them. She described her frustration with students who were satisfied with "just barely passing" when they were capable of so much more and stated "that bothers me more than anything, them not wanting that, them not caring. So I don't know how to fix that." Allison, Jennifer, Lisa, Donna, Elaine and Sandy expressed the stress and frustration they felt caused them to consider leaving either their current position, or the teaching profession.

In addition to their Algebra I courses, nine of the eleven teachers reported teaching courses that do not have an End of Course test. Several of the teachers who also taught non-EOC courses preferred the increased flexibility and decreased pressure associated with teaching the non-EOC courses as compared to the Algebra I course. Conversely, some teachers believed having an EOC at the end of the course motivated

some students to work harder because the students knew they had to pass Algebra I to graduate from high school.

Generally, teachers focused on the negative aspects of teaching Algebra I, particularly those they associated with high-stakes testing and accountability. The challenges related to the students they served and the pressure they felt to increase test scores dominated their comments about how they felt about teaching Algebra I, even when they liked the curriculum and their students.

Departmental environment. All participants in the study described their working relationships with other teachers in the math department as positive, citing good communication, collaboratively planning for instruction and developing pacing guides, sharing ideas and resources, and generally working well together. Several teachers referred to strong bonds of friendship and strong feelings of accountability to the teachers who will receive their students in subsequent courses. Teachers also cited formal and informal mentoring relationships as strengths of their department.

When participants described their working relationships with their peers, references to accountability were often woven throughout their descriptions. Connie stated, "We're always trying to find ways that we can maybe improve a score." Elaine referred to sharing EOC practice resources among the department. In describing his acceptance as a relatively new faculty member by his department, William stated:

I think I fit into the group here. In general I think I've had pretty good success with the kids on the end of course test, the one I've taught. So that's a factor that goes into it. [Colleagues] know it affects them as far as how well the scores come back.

High Algebra I EOC scores were a source of pride for Connie and her department. She connected the high EOC scores to how well the faculty worked together as a department.

> We have the best Algebra I test scores in the county. And we work well together. We talk a lot about what we are teaching, and how we are teaching it. We share our resources…It's just a good group. We do well. Our scores are really good.

Connie described a supportive environment where department members want each other to be successful stating "We hurt for each other if we don't do well." Both Elaine and Connie expressed how close the math department members at School C were to one another. The department members were friends inside and outside of school, enjoyed spending time together, and felt a strong sense of accountability to one another.

School and district context. Teachers were asked to describe the level of emphasis on EOCs in their schools. The emphasis on testing and accountability in a school or district influenced the teachers' work environment. Allison shared this example of the influence of high-stakes testing in her school:

> All math teachers got an email with what your kids scored on the last EOC last fall, last spring or actually the whole year—how they scored and how you rated against each other's, with each teacher…there was all the students' names, what they scored, who taught them, and what their grade came out to be and then at the bottom the teachers' percentages and everything were compared. So I feel like they're pressuring us. I personally feel like they're making us compete against each other to see who can be the best. And at times I don't think that is beneficial for the kids.

Allison stated members of the math department were concerned about the email. They believed their administrator had inappropriately shared student information, including confidential information regarding identification of EC students. Members of her department contacted state officials to report the incident. Jennifer, another participating teacher at this school, also described receiving this email as an example of the high level of emphasis on raising test scores at her school. After she received the email, Jennifer explored other job opportunities although she really liked her school and would like to stay. The teachers in this school both described a department that tried to work together to improve instruction and provide support for one another. The pressure from the school principal in relation to EOC results threatened the working relationships of the department.

Teachers perceived and experienced the EOC emphasis in different ways from one another, even in the same school. Sandy reported School A's principal told teachers if they were feeling any "extra" test pressure, they were putting it on themselves. She also stated that in faculty meetings the principal spent time going over school test scores and comparing them to test data for other schools in the district and the state. Even though her principal denied placing extra pressure on the teachers, Sandy perceived the constant focus on test scores and the comparisons to other schools to be a source of pressure. John, another participant from School A, seemed more accepting of the emphasis on test scores. John stated:

> We don't try to put so much emphasis on it, but I think you can't just ignore it. You've got to face it. We've got to do good on our test scores. I mean that's an expectation that we have.

As a second year teacher, John's experience is positioned solely in the context of high-stakes testing and accountability. Because his view of himself as a teacher was so closely aligned to his principal's view of John, he may have internalized his principal's message about EOC tests. On the other hand, Sandy worked several years prior to the implementation of the ABCs and NCLB.

Teachers' perceptions of the EOC emphasis in their school were mediated by their EOC test scores. In School C, where the Algebra I test scores have consistently been among the highest in the school and district, the two Algebra I teachers who participated in the study both felt a significant amount of emphasis on test scores and accountability; however, they did not feel it was directed to them because of their high Algebra I test scores. Elaine shared her belief that if test scores were low, their administrators would meet with them to develop strategies "to improve those test scores." When asked about conversations in this school related to EOCs and accountability, Connie stated it would probably be about the departments that weren't "pulling their weight." She also shared how she felt about those teachers.

> I feel bad for them, but then on the other hand, I guess I want everybody to carry
> their own weight. We are all responsible and we all have, this is the reality of
> what we live in. We don't like it, but it is the reality of what we live in.

Connie and Elaine also reported that during faculty meetings the principal shared graphs comparing Algebra I EOC test scores to the EOC test scores from Geometry, Algebra II, and EOC test results from other departments. Additionally, the principal shares graphs comparing their school's EOC test results by subject and department to the test results of other schools within the district and state. Although Connie and Elaine believed there was

a high level of emphasis on EOC test results in this school, the amount of pressure they felt was mediated by their perceptions of how their principal felt about their Algebra I EOC results. The emphasis on EOC test scores in this school interacted with teachers' perceptions of their teacher efficacy, which was strongly linked to good test results.

The extended work environment of the district also shaped teachers' more immediate work environments (the schools). Two teachers working in different schools within the same district both expressed the high level of emphasis on testing and accountability they felt originated more from the district than from within their individual schools. Nathan and Lisa described recent meetings with district personnel and other Algebra I teachers to discuss the district-mandated Algebra I benchmark test results. Nathan reported he and his colleagues believed the benchmark tests only provided teachers information they already knew from their daily work with the students. Nathan had mixed feelings about the impact of the district meetings that involved either having teachers with low benchmark results explain how they planned to remediate students who were not proficient on the benchmark or having teachers with high benchmark results share strategies for success. Nathan stated "So there's some networking involved. In some ways I think it's a good thing and in other ways I think it's just a colossal waste of time." Lisa addressed how she felt about the district meetings and the emphasis on testing.

> So there is kind of that level of stress there that you want your kids to perform there with everybody else so that you don't look bad, and the kids don't look bad…but I don't feel like the school itself has any more emphasis on it than the district.

Brenda, in District 2, and William, in District 1, also believed the majority of the test pressure in their schools came from the district office or the state and filtered down to school administrators. They believed their principals tried to minimize test pressure on teachers. In general, references to district office personnel or initiatives, or the state, were related to the pressure teachers experienced in the context of high-stakes testing and accountability.

Local community context. The work environment of teachers was influenced by the way teachers perceived their communities felt about their schools and the quality of the education their schools provided to students. Because each of the schools in this study are embedded in the context of a local community, EOC test results and AYP reports in the media are reported in the local newspapers.

Nearly all of the teachers believed the public had a positive or mostly positive view of teachers. Most stated the local community had a very good opinion of their school in particular. Teachers reported the majority of their parents were supportive of their school and their work. Nathan said although the public still "holds teachers in high regard," there was a greater public awareness of the teachers who are not doing a good job. He believed this awareness may be one factor affecting the public desire for increased accountability that has resulted in more high-stakes testing.

William, John, and Sandy, all from District 1, referenced reports in the local media about accountability results for their school under either NCLB or the North Carolina ABCs. Large headlines in the local paper had informed the public that School A did not make Adequate Yearly Progress. The paper corrected the error the next day, but John believed "the damage is done" and the report undermined the community's

confidence in the school. William also felt his school had been unfairly portrayed in the local newspaper and the public had an overall negative view of his school based upon "bad press" regarding the dropout rate and test scores. His school did not make AYP in the two years prior to the study and had been labeled a "Priority School" by the state. William described his frustration with the negative publicity about his school noting that there are many positive things happening that do not get reported in the media. He believed the members of the public who are knowledgeable about the school, through volunteering or as parents, saw the good work being done at this school with students he described as a "tougher group of kids" than students at other schools in the area. His perceptions of the negative press were mediated by his assessment of the challenging student population they serve, as compared to other schools in District 1.

Teacher Efficacy

For the purpose of this study, teacher efficacy was defined as a teacher's belief in his or her ability to influence student learning, particularly for difficult or unmotivated students. The concept also emerged as strongly positioned in the context of high-stakes testing and EOC results. Several questions were asked to explore teachers' perceptions of their teacher efficacy. These questions asked teachers to reflect on their abilities to motivate students and work with difficult or unmotivated students. Teachers were also asked to describe the factors they attributed to student performance on the EOC. Other probes explored the type of students with whom teachers felt most efficacious and best suited to teach.

Some teachers with higher feelings of teacher efficacy said their students' performance on the EOC was positively impacted by their instructional practice. They

referred to their ability to structure assessments in an EOC-like format, their ability to
include test preparation strategies and review, and their ability to challenge students
throughout the course. These teachers also referenced using EOC sample items, giving
cumulative assessments throughout the course, and clearly communicating expectations
for students. Sandy described the importance of preparing students for the test:

> I mean I go to great lengths to make sure they are ready for that state test. We
> have lots of practice. We talk about it a lot…I use everything the state gives me
> that I can get a hold of. I mean, some teachers really don't talk about it that much
> and don't, but my kids, I tell my kids, I say, you know my goal is that when you
> open that state test, there's no surprises—none.

Some teachers shared their perceptions of their ability to impact student performance on
the EOC in a more affective, or emotional, manner. Sandy spoke at length about her
efforts to build students' confidence in their ability to be successful on the EOC, even
from the first day of the class. Brenda told of a student whom she believed would be
successful on the upcoming EOC because "she realizes that I care about her and that I
want her to do well." Allison shared "just somebody paying attention to them is all that
they needed, just taking the time and saying how are you today was all that it took for
them to try a little harder in the class." Ironically, Allison believed she negatively
impacted her students' EOC test results one semester when "her heart wasn't in it."

Some teachers described specific examples of students with whom they felt they
had experienced success. A few teachers viewed what they did to get unmotivated or
difficult students to be successful as going above and beyond what anyone should expect
a teacher to do. Others described their efficacy only in terms of how effective they could

be with students who were willing to work and those who met them halfway. Some teachers perceived they did not have an impact on their students' academic performances while others felt their impact was the most significant factor in their students' academic performances.

Several teachers perceived their ability to impact student learning in limited terms. Lisa's low feelings of teacher efficacy in relation to student EOC performance triggered resentment in her interpretation of how teachers are judged by test scores. She shared:

I think a lot of teachers feel the same way I do about the EOCs. Again we only have so much control over how well our students will do. And we kind of resent the fact that we are judged on that when there is only so much we can do.

Jennifer, a relatively new teacher, expressed feelings of low teacher efficacy in her ability to work with students who are not motivated stating, "I mean I can't open up their little heads and pour it in there." In general, she described her ability to impact student achievement in limited terms:

I'm not going to say I think it was me at all just because it probably was not, but just the ones who actually cared enough to really try and be here and do what they were supposed to when they were here…I'm sure I do have an impact, but I don't think I would be the one to impact them as much when they do well or the ones who don't come, and then fail. I'm not sure that, that's me.

Veteran teacher Elaine stated, "I can't teach a child who wants me to open their brains up and cram it in and them not do anything. It won't happen. So I have to have students who are willing to work." She described other factors she attributed to student success, or lack

of success, in her classroom. She attributed failing test scores on the EOC to students being unmotivated, or failing to take on the responsibility to do the work she gave them. If they were successful, she attributed that to their willingness to do what she asked of them. She emphasized the structure of her classroom and her maximum use of class time for instruction as one of her strengths. "There's not a play day. There's not a fun day. There's not a party day. It's just every day trying to teach them algebra and take it seriously." When asked about her ability to work with difficult or unmotivated students, Elaine responded:

> I was chosen [to teach unmotivated students] so I have some ability, I guess. But I am not a miracle worker and motivation is such an internal thing… so I personally don't think I did any extra motivating. I think the reality has hit that this is a high school level course and that takes some responsibility.

In contrast, other teachers expressed stronger feelings of teacher efficacy with all students, including those who were difficult or unmotivated. Sandy, another veteran teacher, described her ability to impact the learning of students with little motivation or ability by the organization and structure of her classroom.

> And especially those beginning level classes respond to that very well—the structure and the boundaries. And after, you know, the more you do it, the more experience you get working with those students. So it kind of leads to knowing more what you're doing.

Nathan described his ability to impact student learning and indicated a strong sense of teacher efficacy in his comments. He stated:

I have a lot of impact honestly, both for the good and I guess for the bad. If I am a

poor instructor most of these kids are not going to be motivated to learn it on their

own. Most of these kids are not going to be able to decipher an algebra textbook

and really figure out what those algebra steps that are being laid out for them,

what's really happening there. So I think I have a great deal of impact in

providing explanations that the kids can wrap their brains around. I've also been

able to choose opportunities for them to see how those skills come into play in

real contexts...those analytical skills, those evaluative skills, those higher-order

thinking skills that we want them to do.

Nathan expressed a connection between the quality of his instructional practice and

students' motivation. He possessed a strong sense of responsibility for motivating his

students, a high level of confidence that he could prepare his students for success on the

EOC if they did what he asked them to do, and a high sense of teacher efficacy.

Similarly, William's strong feelings of teaching efficacy with struggling students were

evidenced in the following statement:

I think the ones that I probably teach the best are the ones that are lower

functioning in math, but are willing to give the best effort that they have—

meaning that as long as they are willing to work, I think I've had a pretty high

success rate with those groups of kids. Where the math doesn't make sense, but I

just kind of lay it out the way that I've learned and I may come at it five different

ways with the same problem just to see which one they're going to understand.

So I think that group is probably the one that I have the most success with.

One theme that emerged from the interview data was responsibility for learning. Most teachers addressed their beliefs about the importance of students taking responsibility for their learning and their frustration when students do not. Some teachers described their beliefs that there should be a partnership in which the students meet the teachers halfway. Connie and Nathan believed some students just choose to fail, and they have a right to do so. The amount of energy these teachers were willing to expend upon students whom they perceived were just choosing to fail varied. For Connie, evidence of such a choice removed her responsibility as a teacher to continue to try to motivate the student or to engage the student in classroom instruction or activities. Not all teachers referred to the teacher-student relationship as a partnership. Sandy and William expressed the opposite view, and took a "whatever it takes" attitude, stressing the importance of staying committed to the success of all students, even those who were no longer committed to their own success. Both of these teachers placed strong emphasis on their responsibility to engage learners who were either unmotivated to learn or believed they could not learn. In general, teachers who expressed a higher sense of teacher efficacy did not feel absolved of their responsibility to teach when students did not meet them halfway.

Nathan, Sandy, Brenda, William, and Donna felt a strong sense of teaching efficacy with all students, even with difficult or unmotivated students. Their comments indicated the teachers believed they positively impacted their students' achievement. They shared the strategies they used to motivate unmotivated students. They sought ways to work with all students, even when the students did not appear to try in class or had academic deficiencies. The remaining participants seemed to attribute students' lack of

success to factors the teachers could not control and expressed their teaching efficacy in more limited terms, primarily related to their success with motivated and prepared students.

The Influence of High-Stakes Testing and Accountability on Teachers' Professional Identities

For the purpose of this study, teacher professional identity was defined as the individual teacher's perception of himself or herself as a teacher. The conceptual framework of this study employed a symbolic interactionist viewpoint (Blumer, 1969) to explore how teachers made meaning of their professional identity, or who they were as teachers, in an era of high-stakes testing and accountability. This lens held that teachers acted toward things depending upon the meanings the objects, such as a person, work environments, or a personal factor like their perceptions of their teacher efficacy, held for them. Additionally, teachers' meanings, or perceptions, were social products formed in and through social interactions, which they used through an interpretive process that continually used and revised meanings to guide and form actions. Applying Blumer's theory, teachers made indications of themselves to themselves based upon their interactions. Through these self-indications, each teacher's professional identity was formed.

The conceptual framework for this study also incorporated Social Cognitive Theory, based upon the concept of reciprocal determinism (Bandura, 1986, 2001), to explore the interactions of (a) teachers' instructional practice; (b) teachers' work environments; and (c) teachers' perceptions of their teacher efficacy, in the context of high-stakes testing and accountability. This framework supported the exploration of the

professional identity expressions teachers shared as they discussed their instructional practice, work environment, and teacher efficacy.

Teacher professional identity is a dynamic construct that develops from the indications teachers make to themselves about themselves. Interactions with themselves and others, their work environment, and their teacher efficacy, form the identity that each teacher holds for himself or herself. Therefore, listening to the ways in which teachers talked about their work; their relationships with others, including their students, colleagues, and administrators; and their school environment; revealed much about how the participating teachers in this study viewed themselves. This section presents the findings related to the second research question: How do high-stakes testing and accountability influence teachers' professional identities?

In the context of high-stakes testing and accountability, some teachers expressed themselves in ways that indicated a strong sense of their identity is primarily situated in their work as it relates to the impact on students. They expressed an obligation to protect students from the pressures of the EOC (Sandy), to engage or to motivate students (Nathan, Sandy, William), and to promote a sense of worth beyond the singular focus of success on an EOC (William and Sandy). Other teachers expressed themselves in ways that illustrated their professional identities were strongly positioned in a teacher focus, either on themselves (John) or their work relationships with other teachers (Elaine), and the sense of accountability they feel toward their peers (Connie). They expressed being embarrassed at letting their department or their school down when test scores were low (Connie), without mentioning any perceived responsibility toward the students.

The characterizations of teachers' professional identity expressions as having a student or teacher focus are not absolutes. Indeed, Donna was difficult to classify as her identity expressions indicated a shift from a teacher focus to a student focus as her career progressed and she was assigned to teach students who struggled more academically than the students she had previously taught. Teachers often made isolated statements during the interview that seemed to contradict the rest of the data. Teachers' professional identities are fluid and dynamic, and can be difficult to describe neatly. The purpose of exploring this finding is not to elevate one form of identity expression over the other, but to consider any connections these expressions might hold to the influence of high-stakes testing and accountability and how teachers viewed themselves and the purpose of their work. It is interesting to note that all of the teachers who expressed their identity with a strong student focus also perceived they had the ability to impact student learning, even difficult or unmotivated students.

William expressed his identity in ways that suggested a strong student focus is central to the way in which he viewed himself as a teacher. William believed his background in social work with teenagers was one reason he was assigned these students "with tougher backgrounds." He stated he is "somewhat prepared for working with those kids a little more than some people." Seeing himself as a teacher who can help students pass the EOC when they have failed previously is central to William's professional identity.

Nathan's professional identity reflected a strong student focus, which is evidenced by his choice of instructional strategies and how he described his teaching efficacy. Nathan felt a strong emphasis from his school district on EOC test results and he believed

he was evaluated as a teacher partly through his students' EOC scores. Still, Nathan did not define himself by his students' scores and accountability.

Donna's instructional choices indicated a learner-centered approach to teaching. She described the importance of being concerned about student learning rather than teaching and her dedication to meeting the needs of individual students. Her professional identity was positioned in a student focus. Still, Donna considered her students' test scores to be a measure of her value as a teacher and she was strongly influenced by the pressure she felt to produce high EOC test results.

Brenda's professional identity expressions indicated her identity had a strong student focus. High-stakes testing and accountability also influenced Brenda to choose teacher-centered instructional methods that, more often than not, yielded acceptable test scores for her students. Although Brenda possessed a high sense of teacher efficacy, she described her emotional response to an occurrence of lower than expected EOC results and how it made her feel like a "failure" as a teacher.

The most dramatic example with regard to the influence of high-stakes testing and accountability to any teacher's professional identity was Sandy's description of herself as a buffer, or shield, with a primary role of protecting her students from the detrimental effects of accountability. Her professional identity expressions were positioned in a student focus.

Allison's professional identity was strongly influenced by certain aspects of accountability and high-stakes tests, and was expressed primarily in a self-focus. She interpreted being assigned to teach EOC classes as a measure of her worth as a teacher. Allison indicated her perceptions of her professional identity would be changed if the

EOC classes were taken away from her. Similarly, John and Jennifer expressed themselves in ways that indicated a strong teacher focus, primarily on self. Lisa felt judged as a teacher by her students' test scores and was extremely frustrated by her inability to "control" her students' levels of motivation and willingness to work, which she characterized as the most important factors in their performance on the EOC. Her professional identity expressions were unambiguously positioned in a teacher focus on self.

Connie and Elaine each expressed themselves in ways that indicated their professional identities were strongly positioned in a teacher focus on peers. They worked in a department that felt a strong sense of community with one another. Both were strongly influenced by their accountability to their peers and described how they did not want to let their colleagues down by producing low EOC test scores.

Teachers' work environments and their instructional choices influenced their professional identities. The demands of the EOC environment were sometimes in conflict with what teachers believed they should do instructionally for students and this conflict influenced how teachers felt about themselves as teachers. One such conflict occurred when teachers believed they were moving through the Algebra I curriculum too quickly for struggling students. Teachers felt bound to the pacing guides developed by school or district personnel that ensured all objectives of the SCOS were covered, even when they believed they needed to go slower for some students. Additionally, teaching students the Algebra I curriculum when the teachers themselves believed it was either not relevant to the students' future plans, or beyond the academic capacity of some students, was another source of conflict for teachers. These teachers made indications to themselves about their

actions, such as the choice to move forward when they believed they should slow the pace, which influenced their professional identities. Their professional identities were influenced by whether or not they believed they were doing what was right for students. Brenda, Nathan, William, Allison, and Jennifer did not always believe they were doing the right things for students, but felt compelled to do them anyway due to the requirements of the accountability systems. In contrast, Sandy mentioned each of these concerns, but separated herself from being responsible for any potential negative effects of accountability on students. Her professional identity was enhanced by this separation and her belief that she did everything possible to buffer her students from the negative outcomes of accountability.

How teachers viewed themselves was often closely linked to how they perceived their principal viewed them. John's expressions of how he viewed himself as a teacher echoed comments he attributed to his principal in their discussions of his teacher evaluations. He viewed himself as having the potential to become a superior teacher, mirroring his principal's optimism about his potential for professional growth. Brenda's view of herself as capable of fulfilling a specialized need in the freshmen transition academy arose from her principal recruiting her out of retirement. Although she no longer had to work for financial reasons, she viewed herself as needed to fulfill a teaching assignment that required her unique background, experience, and temperament. Brenda made indications to herself regarding her principal's high esteem for her work based upon the special considerations she was given that were not afforded to other teachers.

For teachers who believed their principals assigned EOC classes to high-performing teachers, being assigned to teach an EOC course was a powerful indicator to

the teacher and to the school community of the principal's assessment of the teacher's ability. Most participants perceived school administrators factored in teachers' areas of strength, which were often interpreted through EOC scores. Two teachers commented on how being assigned to teach an EOC course made them feel about themselves as teachers. Allison indicated she was proud that her administrators had confidence in her. Allison was uncomfortable describing how she felt about herself as a teacher. Her principal placed a great deal of pressure on EOC performance and Allison knew that teachers who had low EOC scores were being assigned non-EOC courses. She connected being assigned an EOC class to her principal's perception of her performance as a teacher and what it told her about herself as a teacher.

> I feel that if I did not have an EOC compared to I have always had one, I would feel like I really wasn't a good teacher. Since I do have an EOC, and I've always had them, I feel like I must be okay. I'm at least okay. I don't know if I am top, but I don't feel, at least, that I am bottom…and I say well, at least I'm teaching one so at least I'm okay. Or maybe you could say, at least they don't have anybody better than me.

Donna stated, "There's no doubt they take the teachers who can perform well on the EOC with their students and that's who gets the EOC classes. I mean, there's no doubt about that." Teachers made indications to themselves about how their principal viewed their teaching performance based largely on just being assigned to teach an EOC course.

Teachers made indications to themselves about their professional abilities as a result of EOC scores. For some teachers, test scores became a reflection of the teacher's performance as much as it was an indicator of their students' performance. Test scores

were frequently interpreted as a determination of the quality of their teaching. How

principals responded to the teacher's test scores was significant for some teachers.

Teachers felt test scores validated their practice when the scores matched the teachers'

predictions for how well a student would perform on the EOC, based upon how well the

student performed in the class. When asked how she felt about the EOC tests, Elaine's

response indicated that test results, in a sense, validate her classroom practice because she

has never had a student who passed her class, fail the Algebra I EOC. Likewise, she

states "I've had kids I knew couldn't get there that didn't get there." Similarly, Connie

stated:

> You know it has to be a validation for me as a teacher that I've hit the mark this
>
> year—that I've done what I was supposed to do. And hopefully, I've done it well
>
> enough that they can take those skills with them on to the next level.

When asked about his students' performance on the EOC, John responded with a

statement indicating teacher, rather than student, performance stating, "The success that *I*

had on EOCs, I was very impressed with that."

In addition to the indications teachers made to themselves about EOC results,

teachers believed others judged them as teachers based upon test scores. Lisa reported she

and other teachers felt judged by their students' test results. When asked to clarify what

she meant by judged, she responded, "Judged as a teacher…you know you did a good job

because all of your students passed the EOC, or you must have done something wrong

because you had so many students who didn't pass." William felt accepted by his

colleagues in part because he produced good EOC results with students who had

previously failed the course.

EOC results affected how teachers viewed themselves as teachers, including whether they had fulfilled their obligation to their students, or were in the right profession. Brenda questioned her teaching performance as a result of low EOC test scores she did not anticipate. As a result, she made indications to herself, about herself as a teacher. She shared:

Well it kind of defeats me too. You know, I've poured my heart and soul into this kid for 180 days and given them all I can give them and it makes me feel bad too. It…makes me feel like I'm a failure for them.

As a result of this experience, Brenda, an experienced teacher, confident in her practice and secure in her principal's assessment of her performance, reflected upon her professional identity, her worth as a teacher, in response to EOC scores. Without EOC scores, Brenda was confident she had given her best effort to teach her Algebra I students. If there had been no EOC for that class, she would have walked away confident in her practice and secure in her identity.

In contrast, Connie, an experienced teacher who lacked confidence in her teaching ability and openly shared her shortcomings and struggles, felt test scores validated her worth as a teacher. Her professional identity was strongly linked to test scores. Without the satisfactory EOC results, Connie would not have compared herself favorably to other teachers. Connie shared she was not very creative and even stated, "As far as different strategies, I'm not very good." She also shared that she wanted to learn to rely less heavily on lecture and practice. Still, Connie, her peers, and her principal were happy with her students' EOC results. The EOC test results validated her practice, and supported her sense of worth as a teacher, a component of her professional identity.

Connie's professional identity, strongly linked to her peers and shaped by high-stakes

testing and accountability, offset Connie's doubts about her performance as a teacher.

Exploring Variations of the Influence of High-Stakes Testing and Accountability on

Teachers' Professional Identities

The final research question sought to explore whether the influence of high-stakes

testing and accountability varied with teaching experience or school setting. The

influence of high-stakes tests and accountability on teachers' professional identities

appeared to vary by teachers' years of experience. This relationship may also be related

to whether or not teachers taught prior to the implementation of high-stakes tests and

accountability. Whether the influence of high-stakes tests and accountability varied by

school setting is more difficult to discern due to the complexity of the factors that impact

a school setting, including the influence of the district, the principal, EOC test results, and

other relationships.

Years of Teaching Experience

To examine whether the influence of high-stakes testing and accountability on

professional identity varied with teaching experience, teachers were categorized by years

of experience. Teachers' years of experience ranged from 1 to 34. Four categories related

to teaching experience were evident in this sample. Teachers with one to three years of

teaching experience were categorized as beginning teachers. Two teachers each had six

years of experience and were classified as early career teachers. Middle career teachers

had teaching experience ranging from 14 to 19 years. Brenda, with 34 years of

experience, was the only participant categorized as a late career teacher. Table 2

summarizes the influence of high-stakes testing and accountability on teachers'

professional identity by years of experience classification.

Table 2

Teacher Experience and Influence of High-Stakes Testing and Accountability

Experience[a]	Pseudonym	School	Identity Classification	Influence
Beginning	John	A	Self	Validated by EOC scores
	William	B	Student	Limited influence on identity
	Jennifer	H	Self	Wants to teach non-EOC courses
Early Career	Nathan	E	Student	Not defined by EOC-test scores
	Allison	H	Self	Having EOC classes validated her as a teacher
Middle Career	Sandy	A	Student	Protector of students
	Connie	C	Peer	Validated by EOC scores
	Elaine	C	Peer	Validated by EOC scores
	Donna	G	Student	Intense self-pressure for high EOC test scores
	Lisa	F	Self	Judged as a teacher
Late Career	Brenda	D	Student	Felt like a failure

[a] Beginning and Early Career teachers have taught only during the accountability model; Middle Career and Late Career teachers taught before the accountability model.

The table includes the experience category, the pseudonym, school, and identity classification for each teacher. A description of the influence of high-stakes testing and accountability on each teacher is also included in the table. This description may not be the only way each teacher's identity was influenced, but represents the primary manifestation of the influence on the teachers' identities.

No clear pattern emerged with relation to teachers' years of experience to explain variations of the characterizations of teachers' professional identities as being situated in either a student or a teacher focus. Of the beginning teachers, William's professional identity was characterized as having a student focus while Jennifer and John each expressed their professional identities in ways that were characterized as a teacher focus. Early career teachers, Nathan and Allison, expressed their professional identities differently with regard to focus. Nathan's professional identity was strongly positioned in a student focus while Allison's identity was positioned in a teacher focus. Of the middle career teachers, Donna and Sandy expressed their professional identities with a student focus. Connie, Elaine, and Lisa—also middle career teachers—each expressed their professional identities with a teacher focus, whether peer or self. Brenda, the only late career teacher, expressed her professional identity in a manner that indicated a strong student focus.

Examining teachers' professional identity expressions beyond the characterization of having a student focus or a teacher focus revealed a variation in the intensity of the influence of high-stakes testing and accountability by teachers' years of experience. The

early career and beginning career teachers have only taught within the context of an accountability system. The middle career and late career teachers taught prior to the implementation of NCLB and the ABCs. The middle and late career teachers appeared to view the EOC results as a measure of their worth as a teacher in a different manner from the less experienced teachers. This was evident in their comments about being "judged as a teacher," serving as a "shield" for their students, letting their peers down, or feeling like a "failure."

School Setting

To consider whether the influence of high-stakes testing and accountability on teachers' professional identities varied by school setting, I characterized each school setting based upon the participants' comments regarding the level of perceived emphasis on EOC tests in his or her school. Teacher interviews were conducted in the fall of 2008; therefore, the 2007-2008 ABC results and AYP status were examined to provide background data for this characterization. Teacher comments about test results seemed to focus more on ABC designation than AYP status. Additionally, teachers seemed to describe their performance more in comparison to how well their school performed relative to other schools in their district than in comparison to other schools in the state.

Table 3 provides background information related to Algebra I EOC results, AYP status, and ABC designation for each school for the 2007-2008 school year. Table 3 includes a column comparing the Algebra I EOC results for each school to the district average and a column comparing the Algebra I EOC results for each school to the state average. The table includes whether or not each school met the requirements for AYP, and each school's ABC designation. Two ABC designation labels were assigned to the

schools in this study during the 2007-2008 school year. The School of Progress label

indicates that 60% to 80% of the students tested performed at grade level and the school

made either expected or high growth under the ABCs. The No Recognition label

indicates that 60% to 100% of the students tested performed at grade level, but the school

did not make either expected or high growth under the ABCs. Algebra I proficiency rates

for each school were not included in the table to protect the confidentiality of the

participants.

Table 3

High-Stakes Testing and Accountability Context Factors for each School Setting

District	School	Algebra I Proficiency compared to District	Algebra I Proficiency compared to State	AYP Status	ABC Designation
1	A	Below	Above	Met	No Recognition
	B	Below	Below	Not Met	No Recognition
2	C	Above	Above	Met	No Recognition
	D	Below	Below	Not Met	School of Progress
3	E	Below	Above	Met	School of Progress
	F	Below	Above	Met	School of Progress
	G	Below	Above	Met	No Recognition
4	H	Below	Above	Not Met	No Recognition

Table 4 provides each participant's perception of the level and source of EOC emphasis for his or her school, and the teacher's identity classification. The perceived emphasis on EOC tests was classified regarding the level of the emphasis as low, moderate, or high. Additionally, the source of EOC emphasis as perceived by the teacher was also classified as originating from the teacher (self), principal, district, or the state. One participant did not identify a specific source (unspecified).

All of the participants worked in schools with Algebra I EOC proficiency rates below the district rates for the 2007-2008 school year, except for Elaine and Connie who taught at School C. Both of these teachers perceived a high level of emphasis on EOC test results in School C and believed their principal, and other building-level administrators, emphasized the importance of high EOC test scores. Similarly, Sandy in School A, and Jennifer and Allison in School H, also expressed feeling their school principal strongly emphasized the EOC test results. However, these teachers worked in school settings that were quite different from those of School C with regard to test scores. Schools A and H both performed lower than their districts on Algebra I EOC results. Four of these five teachers expressed their professional identities in ways that indicated a strong teacher focus. Only Sandy expressed her professional identity in a strong student focus. The common factor appeared to be the high level of EOC emphasis originated from the principal rather than EOC test results.

Brenda in School D and William in School B worked in similar school settings. Both schools performed below both the district and the state average with regard to overall EOC composite proficiency and Algebra I proficiency rates in the two school years prior to the study. Both teachers reported their principals tried to ease the pressure

teachers felt from sources beyond the school, namely the district. William's school was labeled a Priority School under the state accountability model in the 2006-2007 school year, but test scores had risen just enough in the 2007-2008 school year to move the school into the School of Progress category. Still, his school had not made AYP under NCLB, or expected growth under the ABCs. Brenda's school was the lowest performing school in her district with regard to Algebra I EOC test results.

Table 4

School Setting and Influence of High-Stakes Testing and Accountability on Identity

District	School	Pseudonym	Perceived Level/Source of EOC Emphasis	Identity Classification
1	A	John	Low /Unspecified	Self
		Sandy	High/Principal	Student
	B	William	High/District	Student
2	C	Elaine	High/Principal	Peer
		Connie	High/Principal	Peer
	D	Brenda	Moderate/State and District	Student
3	E	Nathan	Moderate/District	Student
	F	Lisa	Moderate/District	Self
	G	Donna	High/Self and District	Student
4	H	Jennifer	High/Principal	Self
		Allison	High/Principal	Self

Both of these teachers referenced the pressure to raise test scores during the interview. Both chose direct instructional methods over more learner-centered approaches they would like to use because of the need to prepare students for the EOC. Also, Brenda and William indicated the pressure to raise test scores seemed to originate more from district personnel than from their principals. Both of these teachers expressed their professional identities in ways that indicated a strong student focus. Additionally, both of these teachers indicated a high sense of teacher efficacy and a belief that they were uniquely qualified due to prior experiences to work with the challenging student population assigned to them. Even with these similarities, high-stakes testing and accountability influenced the teachers' professional identities in different ways. While Brenda shared an illustration of how high-stakes tests and accountability impacted how she felt about herself as a teacher, William indicated he did not value himself as a teacher based upon his students' test scores. William expressed concerns about accountability measures, but never seemed to define himself within the context of accountability as Brenda did.

Jennifer and Allison also worked in a school that did not make AYP for the 2007-2008 school year. Unlike Brenda and William, both teachers felt the high level of emphasis on EOC test scores originated from their principal. Unlike Brenda and William, neither of these teachers possessed a strong sense of teacher efficacy and both of them expressed their identities in a strong teacher focus (self).

In District 3, all of the participants worked in schools that performed above the state average. Overall, this district was well above the state average in both EOC composite and Algebra I proficiency rates. However, each of these schools, Schools E, F,

and G, performed below the district average during the most recent school year. Nathan and Lisa described the district requirements that made them believe the pressure to raise test scores came from the district, rather than the school principal. In fact, neither of these teachers referenced their principal in discussions about the level of emphasis on EOC results. Both of these teachers referenced feeling they would be judged, or evaluated by their principal, based in part, on EOC results. For Donna, also a District 3 teacher, the source of EOC emphasis, or pressure, seemed to originate from within herself. She repeatedly talked about the pressure she placed upon herself to have high EOC test scores. This related pressure was one reason she gave for leaving the classroom for a different position. Although she attributed this pressure as one she placed upon herself, several times she referenced having her "name at the top" of the results and knowing the results were viewed by district personnel and her principal. She did not want to be ashamed or embarrassed by the results. The school context of District 3 included the relatively high EOC scores as compared to the state average.

As previously discussed in an earlier section, John and Sandy both worked in School A and experienced their work environment as it relates to the emphasis on EOC test results differently. These two teachers in the same school setting also experienced the influence of high-stakes tests and accountability on their professional identities differently. John viewed EOC results as a reflection of his work, and his relative success as a teacher. He approached high-stakes tests and accountability in a more pragmatic and accepting manner than Sandy. His experience taking EOC tests as a student also affected the indications he made to himself regarding accountability. He viewed taking a test to demonstrate what one knows as "reasonable." In contrast, the influence of high-stakes

testing and accountability on Sandy's professional identity was more intense and personal. Sandy viewed EOC tests and results as a threat to her students. She believed she could more accurately assess what her students knew throughout the year than the state could with a single test given on a particular day. Sandy feared the damage EOC results could do to her students, particularly to their self-worth. Sandy's professional identity expressions indicated she viewed herself as a protector, a type of warrior, for her students. She stated she felt accountable to her students and herself. Accountability requirements were an obstacle to overcome in order to fulfill her commitment to her students. The variation within the same school setting might be explained by the difference in teaching experience and other factors as previously described, or by the different ways Sandy and William interpreted their principal's emphasis on EOC scores.

In examining the variations related to years of experience and school setting across this finding, few clear patterns emerged. Teachers who expressed a student-focused identity worked in each of the four districts and were categorized in each of the experience groups, with the exception of the late career category that included only one participant. Teachers in high-performing and low-performing schools expressed professional identities positioned in a teacher focus. Likewise, teachers in both types of settings expressed professional identities positioned in a student focus.

School setting appears to influence teachers' professional identity more in the context of their interactions in their work environment with their peers and administrators, than based solely upon the proficiency rates or accountability outcomes of the school. However, teachers' professional identities are formed as teachers make indications to themselves of their interactions with themselves and others. These

indications are unique to the individual teacher. Teachers in the same school setting or similar school settings, with different life experiences, or different personal characteristics or beliefs, appeared to be influenced in different ways. It is difficult to separate the factors in a school setting that might cause variations in the influence of high-stakes tests and accountability on teachers' professional identities. Whether or not a teacher taught prior to the implementation of high-stakes testing and accountability and the level of emphasis on EOCs by the school principal may be the most significant factors to account for variations in the influence of high-stakes testing and accountability on teachers' professional identities.

Chapter Summary

Chapter 4 reviewed the purpose of the study; restated the research questions; and described the sample. Findings of the study were reported for each research question. A vignette about each teacher was included to provide context and background data related to each teacher's professional identity and other concepts of the study. Key findings included a reliance on direct instructional methods, particularly with lower-performing students, was attributed to the demands of an EOC, even for teachers who would prefer to use other methods. Also, teachers' professional identity expressions revealed two primary orientations: student and teacher (self or peer). Principals' actions related to EOC emphasis impacted how teachers viewed themselves. Teachers who expressed their professional identities in a strong student focus perceived higher teacher efficacy in their work with all students. Teachers with lower teacher efficacy attributed students' success or failure on the EOC to factors beyond their control, and limited the amount of energy they spent on students who were unmotivated or difficult to teach. Teachers felt pressure

associated with high-stakes testing and accountability and attributed the pressure to a variety of sources and the emphasis on EOCs in their schools or districts. However, even teachers in the same school perceived and experienced the EOC emphasis in different ways. Teachers who taught prior to NCLB and the ABCs experienced the influence of high-stakes testing and accountability more intensely than other teachers. The principal as a source of high emphasis on EOCs may be related to variations in the influence of high-stakes testing and accountability on identity by school setting.

Chapter 5 will present a review of the concepts of the study and a discussion of the key findings. The strengths, contributions, and limitations of the study will also be discussed. The chapter will also contain implications for future research and practice.

CHAPTER 5: DISCUSSION

High-stakes testing and accountability systems have impacted the work lives of teachers. In the current environment of increased teacher accountability, teachers' experiences and their responses to these experiences can influence how teachers feel about themselves as teachers, or how they perceive their professional identity (van Veen et al., 2005). Teachers perceive their responses to testing in different ways (Cimbricz, 2002). Teachers make meaning from their interactions with themselves and others. These meanings shape the professional identity of each teacher in unique and personal ways (van den Berg, 2002).

The purpose of this study was to explore the influence of high-stakes testing and accountability on teachers' professional identities. The final chapter of this dissertation will provide a brief review of the concepts of the study and the research questions, followed by a review of the methodology employed to investigate the research questions. A review of the findings will also be provided. The significance of the findings and the implications of the study will be discussed in the broad context of the framework of the study. The chapter will conclude with a synthesis of the study.

The following research questions were examined to explore the concepts of the study:

1. How do teachers view the interactions of their instructional practice, work environment, and teacher efficacy in the context of high-stakes testing and accountability?

2. How do high-stakes testing and accountability influence teachers' professional identities?

3. Do the influences of high-stakes testing and accountability on professional

identity vary with teaching experience or school setting?

The study employed qualitative research methods to examine the concepts of

interest. Eleven high school Algebra I teachers were purposefully selected to provide a

sample that included teachers with varying amounts of teaching experience from a variety

of school settings. Semi-structured interviews were conducted to gather data from the

participants. The data were analyzed to determine emerging themes and to answer the

research questions. A vignette about each participant was included in Chapter 4 to

provide a foundation for the findings related to the three research questions. The vignettes

were constructed from the interview data to provide context for understanding the

teachers' constructions of their professional identities.

<div align="center">Study Findings</div>

This section will discuss the key findings related to each of the three research

questions explored in this study. The findings will be summarized and linked to previous

literature.

Research Question 1: The Interactions of Teachers' Instructional Practice, Work

Environment, and Teacher Efficacy in the Context of High-Stakes Testing and

Accountability

Teachers in this study believed the high stakes of the Algebra I EOC limited their

choices of instructional strategies and narrowed the curriculum. Eight of the 11

participants believed they could not use some instructional strategies that were research-

based, or more engaging to students, because they had to deliver the curriculum in a time-

effective manner to prepare students for the EOC within the confines of the pacing guide.

The strategies that dominated their instructional practice tended to be more teacher-centered, or direct instructional methods, like lecture, note-taking, and guided practice. Although teachers attributed their reliance on direct instructional methods to the pressures they associated with the EOC, it is possible some teachers actually preferred this type of instruction and would continue to use direct instructional methods even if Algebra I did not have an EOC. The EOC may simply be an excuse for some teachers to use direct instructional strategies rather than trying other instructional approaches.

Like earlier studies that have shown the implementation of high-stakes testing and accountability influences teachers' instructional practices (Hess & Brigham, 2000; McNeil & Valenzuela, 2000), this study found teachers' instructional practices were influenced. Although teachers expressed a desire to cover some of the Algebra I content more deeply than the required pace allowed, teachers' descriptions of a narrowed curriculum actually reflected their adherence to the NC SCOS for Algebra I. Often the "little trails" and interesting topics teachers wanted to cover were not included in the SCOS. Teachers experienced an inability to teach what they believed to be more important, or relevant to some of their students, than the topics outlined in the state curriculum. Some of these topics mentioned were vaguely described as "life skills" math topics, like balancing a bank account. In addition to their desire to make the content more relevant to students, some teachers in this study also believed Algebra I should not be required for all students. Teachers did not consistently support the expectation that all students can, or should, be required to learn Algebra I. Teachers may experience either difficulty or reluctance in holding students accountable for learning the content of Algebra I when they do not believe it is either relevant or necessary for the students' lives

beyond high school. Such a reluctance may impact the amount of effort teachers are willing to expend on students whom they have predetermined are not capable of success in the Algebra I course they are assigned to teach. It is not hard to imagine this conflict of teacher beliefs leading to a predictable failure on the part of the students, thus reinforcing the teacher's position that certain students cannot be successful in Algebra I or should not be required to complete Algebra I.

The high concentration of lower-performing students in Algebra I classes and teachers' responses to the pressure associated with teaching an EOC course caused teachers in this study to choose direct instructional methods. Teachers stated the lower-performing students would not be able to learn the Algebra I curriculum through "hands on" or discovery learning. They believed these methods were more appropriate for higher-performing classes. Even in District 1 where teachers were trained in a discovery learning approach and provided the resources necessary for instruction, teachers still relied on old textbooks and direct instruction methods with lower-performing students. This finding is similar to other studies that found instructional methods related to student characteristics. Firestone et al. (2004) found teachers taught to the test more frequently in poor districts. Other studies have shown test preparation activities were used more frequently in underperforming schools (Grant, 2000; McNeil & Valenzuela, 2000).

Teachers' reliance on direct instructional methods was validated and reinforced for some teachers by their students' good EOC scores. This finding held for teachers who believed other methods of instruction were better or more engaging to students.

Teachers' perceptions of their teacher efficacy were explored primarily in the context of how teachers felt about their ability to help students demonstrate proficiency

on the Algebra I EOC. Five teachers in the study perceived their teacher efficacy to be high with all students, even with students who were difficult or unmotivated. Further, these teachers did not believe a student's lack of motivation absolved them of their obligation to teach. This group of teachers believed they played a large role in their students' performance on the EOC.

The remaining six teachers perceived their teacher efficacy in more limited terms, believing they were only able to impact student learning for those students who were responsible and motivated. Several of these teachers commented on their inability, or whether they were even obligated, to motivate students who were unmotivated, unengaged, or irresponsible. One teacher firmly believed students have a right to fail and this personal belief supported her lack of attempts to motivate students whom she believed chose to fail. Additionally, this group of teachers believed students' performance on the EOC was not primarily related to their teaching, but to factors such as motivation, responsibility, and effort (if the student was proficient) or lack of parental support, student disengagement, and academic challenges (if the student was not proficient). This finding supports earlier research that found when teachers have strong feelings of teacher efficacy, they expend greater effort on their students (Rosenholtz, 1989). Other research found teachers were divided as to whether student motivation was a student expectation or a teacher responsibility (Hardre' & Sullivan, 2008). Berry et al. (2003) concluded teachers believed student achievement, namely test scores, depended on factors beyond teacher control.

In contrast to earlier research that found experienced teachers had higher feelings of teacher efficacy than less experienced teachers (Tschannen-Moran & Hoy, 2007), the

findings of this study did not indicate experienced teachers felt more efficacious than beginning teachers. William (beginning teacher) and Nathan (early career teacher) exhibited the strongest feelings of teacher efficacy, including an obligation to attempt to engage and motivate students all students.

Research Question 2: The Influence of High-Stakes Testing and Accountability on Teachers' Professional Identities

Teacher professional identity is a dynamic construct that develops and changes as teachers interact with themselves and others, and their environments. Teachers make indications to themselves based upon their interactions. Each teacher's professional identity is constructed through the unique experiences of the teacher's life, both personally and professionally. As a result of the current focus on high-stakes testing and accountability, the classrooms of the participants in this study, like many classrooms in our nation, exist in the context of high-stakes testing and accountability. This context influences teachers' professional identities, as evidenced by the interview data. Teachers' professional identity expressions were infused with references to high-stakes testing and accountability outcomes, even when the interview questions did not specifically address the Algebra I EOC.

Teachers' professional identity expressions revealed two different orientations. Some teachers expressed themselves in ways that indicated their professional identities were primarily situated in their work as it related to the impact on students. They expressed an obligation to protect students from the pressures of the EOC, to engage or to motivate students, and to promote a sense of worth beyond the singular focus of success on an EOC. Other teachers' words illustrated their professional identities were strongly

positioned in a teacher focus, either on themselves or their work relationships with other teachers, and the sense of accountability they felt toward their peers.

High-stakes testing and accountability influenced teachers' professional identities in several ways. Teachers made indications to themselves about the quality of their teaching based upon their students' EOC results and simply being assigned to teach a tested subject. Connie, who acknowledged she needed to improve her instructional practice, felt better about herself as a teacher because of her students' high EOC scores. Connie's EOC scores allowed her to view herself as a better teacher than she would have without her high EOC scores. In contrast, a late career teacher Brenda, normally highly confident in her practice, questioned herself as a teacher, even stating she felt like a failure, after her students' EOC results were surprisingly low one semester.

Teachers' professional identities were shaped by their interactions with high-stakes testing and accountability. Additionally, teachers' professional identities shaped their interactions with high-stakes testing and accountability. Sandy is a particularly illustrative example of this reciprocity. Teachers experienced conflicts when they believed they were not doing what was right for their students as a result of pressures associated with accountability. Sandy's professional identity served to protect her from this type of conflict. Sandy viewed herself as a protector of her students against the dangers of high-stakes testing and accountability. The professional identity Sandy constructed for herself allowed her to separate herself from the potential detrimental effects she believed resulted for her students from high-stakes testing and accountability. Sandy's professional identity mediated the way she experienced the influence of high-stakes testing and accountability and this, in turn, impacted her students. Sandy did not

rely on direct instructional methods and she found ways to make the curriculum relevant to her students. She felt a responsibility to motivate students who were unmotivated, or otherwise difficult to teach. Sandy maintained her student-centered approach to instruction, even as other teachers rationalized a reliance on more teacher-centered types of instruction like lecture and guided practice.

Teachers' perceptions of their professional identities often mirrored the way they believed their principals viewed them as teachers. Teachers internalized their principal's view of themselves through interactions with the principal, including explicit and implicit communication. For example, John's description of himself as a teacher echoed his earlier description of how his principal described him during an evaluation conference. John internalized his principal's description as he formed his early professional identity.

Allison interpreted how her principal viewed her as a teacher based upon a less explicit form of communication--being assigned to teach an EOC course. Indeed, most of the participating teachers acknowledged a teacher's ability to produce good EOC results was a determining factor in how principals assigned these high-stakes courses. Being assigned to teach EOC courses sent a message to the teacher about himself or herself. It was also perceived as a de facto seal of approval bestowed by the principal on teachers in most of the participating schools. Teachers referred to other teachers who had EOC courses "taken away" from them, as if EOC courses were a coveted possession. Ironically, even though it seemed a certain measure of status was attached to the importance of teaching the EOC course, teachers also described negative aspects of teaching an EOC course, including pressure, stress, and loss of teacher control over pace and content.

Teachers interacted with high-stakes testing and accountability in ways that allowed them to consider potential threats to their professional identities and reconcile theses conflicts with how they felt about themselves as teachers. For example, even when teachers described the negative aspects of the Algebra I EOC, they seemed resigned to an acceptance that the tests were not going to be eliminated. As Connie stated when she was asked how she felt about the high emphasis on testing in her school, "We don't like it, but it is the reality of what we live in." Connie has found a way to survive, and even accept, the high emphasis on EOCs in her school, in part because her students' scores are acceptable to herself and the principal. Similarly, Sandy believes the high emphasis on testing can be detrimental to students, but has carved out a comfortable role for herself as a protector of her students in the context of high-stakes testing and accountability, which she describes as a "monster that is consuming instead of helping." Like Connie and Sandy, teachers may be cognitively reframing their experiences with high-stakes testing to resolve their internal conflicts about testing in order to feel better about their jobs, their own actions, and how they feel about themselves as teachers.

Research Question 3: Exploring Variations of the Influence of High-Stakes Testing and Accountability by Teaching Experience and School Setting on Teachers' Professional Identities

To answer the first part of the final research question, I classified teachers by four categories of teaching experience: beginning, early, middle, and late career. Examination of the data revealed the middle career teachers, those with 14 to 19 years of experience, and the late career teacher, experienced the influence of high-stakes testing and accountability on their professional identities more intensely than the newer teachers.

These teachers also taught prior to the implementation of NCLB and the state

accountability model. This difference may be the most significant factor in explaining the

variation related to years of teaching experience and the influence of high-stakes testing

and accountability on teachers' professional identities.

Teachers who taught prior to the implementation of NCLB and state

accountability plans seemed to feel the influence of high-stakes testing more intensely

than newer teachers. The middle and late career teachers appeared to view the EOC

results as a measure of their worth as a teacher in a different manner from the less

experienced teachers, evidenced by their comments about being "judged as a teacher,"

serving as a "shield" for their students, letting their peers down, or feeling like a

"failure." For these teachers, part of the intensity may have resulted from their

interactions with accountability and the related indications they made to themselves that

influenced their professional identities. These teachers had most likely formed a fairly

stable image of themselves as teachers that has been challenged and changed as a result

of the implementation of accountability systems. Newer teachers have viewed themselves

only in the context of accountability. As a result, even though high-stakes testing and

accountability may influence their professional identities, this influence appeared to be

more accepted by the less experienced teachers and was not viewed as a personal affront

to who they were as teachers. This finding is consistent with earlier research that found

teachers with more experience felt a loss of power related to instructional issues as a

result of testing that less experienced teachers did not experience (Winkler, 2002).

The relationship between school setting and the influence of high-stakes testing

and accountability on teachers' professional identities did not appear to be related to EOC

results, AYP status, or ABC designation. In fact, the differences in the influence on the professional identities of Sandy and John, both working in the same school, appeared to be related to the number of years of experience. Further, these two teachers described the emphasis on EOC tests and departmental relationships in nearly opposite views.

One common factor that did emerge related to school setting and the influence of high-stakes testing and accountability was the role of the principal regarding the level of emphasis on EOCs within the school. It is interesting that four of the five teachers who perceived their principal to be the source of the high EOC emphasis in their schools expressed their identities in ways that indicated a strong teacher focus. The actions of the principal, both explicit and implicit, had implications for teachers. Ballet et al. (2006) also found the principal serves as a mediating factor in how teachers perceive the meaning and impact of implemented policies, and that principals may act as a buffer during policy implementation to protect the school from increased demands and strain. The findings of this study extend the earlier research in that principals' actions that increased the demands and strains on teachers may be related to the ways teachers positioned their professional identities in a strong teacher focus.

<div style="text-align:center">Strengths and Contributions of the Study</div>

This study addressed a gap in the research related to the influence of high-stakes testing and accountability. Numerous studies have examined the effect on the curriculum and instruction (Booher-Jennings, 2005; Firestone et al, 2004; Weiss et al, 2003). However, few studies have examined the connection to teachers' professional identities (Burger & Kruger, 2003). This study uncovered an area that warrants future research. Even as high-stakes testing and accountability have been shown to narrow the

curriculum, this study uncovered the possibility that they may have also impacted teachers' purpose in their work, a key component of their professional identity. The role of the high school Algebra I teacher seemed to be defined to a great extent as preparing students for one high-stakes examination. This may be true for teachers of other tested subject areas. Teachers' professional identities are shaped by their sense of purpose in their work. In turn, teachers' professional identities interact with their decision-making processes. There are serious implications for students and schools when teachers believe the sole purpose of their work is to get students to demonstrate proficiency on a single assessment, especially if this concern overrides every decision teachers make. In this study, teachers indicated they did not use research-based practices that engage students with their lower-performing students even when they employed them with higher-performing students due to the pressures associated with the EOC.

Recent literature highlights the detrimental outcomes for students when success on high-stakes tests becomes the sole purpose of teachers' work. Booher-Jennings (2005) found teachers in a Texas study practiced a form of educational triage, where some students received a higher proportion of educational resources because they were considered to be bubble kids, or close to passing the state test. Other lower-performing students were denied access to resources because they were deemed to be too far behind academically to be helped in time for the state test. In a similar fashion, has the EOC become an excuse for Algebra I teachers to refrain from using engaging instructional methods with all students, or from having high expectations for the success of all of their Algebra I students, including those students who are difficult or unmotivated? This study raises the possibility that accountability policies meant to increase the academic rigor for

all students may be thwarted by teachers who do not hold high expectations for all students. As a result, such teachers may expend less effort on those students they have predetermined should not be required to take Algebra I, or on those students who, in their teacher's opinion, do not demonstrate motivation to learn.

Potential strengths of this study are related to the methodology. The use of purposeful sampling, audio-recorded interviews, verbatim transcripts, and multiple cases enhanced the strength of this study. Conducting member checks and a pilot interview also increased the trustworthiness of the findings. Including participants' comments from the interviews in the findings to support the narrative added to the trustworthiness and credibility of the study. Another potential strength of this study was my background as a high school mathematics teacher, which allowed me to probe teachers' responses more fully. Identifying myself as a former teacher seemed to provide a measure of credibility with the participants. I have walked in their shoes, so to speak.

<div align="center">Limitations</div>

This study was concerned with the perceptions of practicing Algebra I teachers in one state as to the influence of high-stakes testing and accountability on their perceptions of their professional identities. Relevant to this study were the interconnectedness of teachers' instructional practice, work environments, and perceptions of their teacher efficacy and how these dynamic factors interact as teachers construct their professional identities.

The delimitations of this study included the boundary of the problem, the sample, and the setting. Additionally, the study is delimited to teachers in one state and one teaching assignment. The impact of accountability may be perceived differently by

teachers with other teaching assignments and by teachers working in other states. Further, the teachers selected for participation in this study may potentially be different from other teachers who responded to the survey, but were not selected for participation.

There are several limitations of this study that result from the context in which it was undertaken. One limitation may be the North Carolina ABCs, and the state's plans to meet the federal (NCLB) accountability requirements, differ from accountability plans in other states. Therefore, teachers working in other states may perceive the impact of high-stakes testing and accountability differently from teachers described in this study. Further, this study has shown that even teachers in the same school or district experienced the influence of high-stakes testing and accountability in different ways. Therefore, the results may not be able to be generalized to teachers in other locations.

An additional limitation may result from the overall Algebra I EOC test results of the districts represented in this study. Even though two individual schools represented in this study performed below the state average, all of the districts represented in this study performed higher than the state average in overall EOC proficiency and Algebra I EOC proficiency. Teachers working in districts that perform below the state average may experience the influences of high-stakes testing and accountability differently due to increased pressure on teachers from school and district administration to raise test scores, or from emotions they may experience as a result of the internalization of EOC results. This study may have been strengthened by including teachers working in districts that performed below the state average in Algebra I and overall EOC proficiency rates.

This study may also be limited by the setting in relation to the number of students taking Algebra I during middle school in the schools and districts included in this study.

The student population for Algebra I in these high schools may differ from the student

population in other high school courses because of the large number of students in these

districts who completed Algebra I prior to high school. The findings may not be able to

be generalized to other high school courses or to other schools for which this same trend

has not occurred. Incorporating classroom observations into the methodology may have

further strengthened this study.

Implications for Future Research

There are many proponents of educational reform who believe teacher evaluations

should be tied to student achievement, as determined by test scores. Two states, Delaware

and Tennessee, were recently awarded $600 million in federal Race to the Top grants.

Both Tennessee and Delaware strengthened their applications for funding by imposing

new measures that link teacher pay and promotion in part on how well their students

perform on tests (King, 2010). Lawmakers in Florida are currently considering a bill that

would implement a teacher evaluation system that includes student learning gains.

Florida teachers have expressed concerns that students' test scores are impacted by issues

beyond the control of teachers, such as attendance, socioeconomic status, and learning

disabilities (Dunkelberger, 2010).

High-stakes testing and accountability have been shown to narrow the curriculum,

including teachers' choices of instructional strategies (Firestone et al., 2004; Hess &

Brigham, 2000; Jones et al., 1999). Similarly, this study revealed the context of high-

stakes testing and accountability may also narrow teachers' perceived roles or purposes in

teaching. The current focus on linking test scores to teacher evaluation may become an

additional contributor to further narrowing of the purpose of teachers. Even though test

scores at the time of this study were not formally linked to teacher pay or evaluations,

teachers felt they were being evaluated, even valued as a teacher, by their ability to

produce high test scores. Teachers in this study also believed factors outside of their

control affected how their students performed on the EOC.

Further examination of this change in teacher purpose is warranted. For example,

what is the impact on students and on student achievement as teachers' purpose narrows?

How does teacher purpose or role affect potential teachers' decisions to enter the

profession or current teachers' commitment to remain in the profession?

Similarly, how to measure teacher effectiveness for evaluation purposes continues

to be a question for researchers. Should teacher effectiveness be measured more broadly

than by student test scores? The Bill and Melinda Gates Foundation has provided funding

for a project that will examine how to develop fair and useful measures of teacher

effectiveness. The Measures of Effective Teaching (MET) project is currently studying

nearly 3,700 teachers in six states and will collect multiple types of data from teachers,

students, and administrators in an effort to identify effective teaching (Measures of

Effective Teaching, n.d.).

Another important emerging theme is that Algebra I teachers do not believe all of

their students need Algebra I or will pursue educational opportunities beyond high

school. As the state curriculum moves to more stringent graduation requirements

(NCDPI, 2009b), and reflects a changing view of the educational attainment levels

required for adult success, many current Algebra I teachers do not find this course

relevant for all students. Their personal beliefs about the irrelevance of specific courses

for students may influence their choice of instructional strategies and the amount of effort

teachers are willing to expend upon students they think do not need or benefit from the course. Additional research is warranted to further understand the potential impact on students when their teachers are responsible for teaching them a course, yet do not believe it is either relevant to or needed by the students.

Additional research is warranted to explore the relationship between the orientation of teachers' professional identities toward either a student or teacher focus and the relationship to teacher efficacy. This study revealed all of the teachers who expressed their identities as positioned in a student focus also expressed higher teacher efficacy with all students, including those students who were difficult, or unmotivated, than their counterparts who expressed their identities in a teacher focus.

Additionally, teachers viewed their role or purpose in teaching in relation to high-stakes testing and accountability. The focus of their teaching was increasingly narrowed toward preparing students for one assessment, an EOC, as it served as the measure of the student and teacher success for the course. Valli and Buese (2007) found high-stakes testing and accountability caused unintended, negative consequences for elementary teachers' pedagogy and that teachers experienced changes in their instructional role. Further research of changes to teachers' role as a response to high-stakes testing and accountability is warranted.

<div align="center">Implications for Practice</div>

The key findings of this study revealed implications for future practice. This study points to the important role of the school principal. Teachers made indications to themselves about their worth as a teacher based upon being assigned to teach a tested subject. Additionally, some teachers felt untested subjects were viewed as less important

by their school principals. Teachers interpreted the explicit and implicit messages their principals transmitted regarding high-stakes testing in various ways. Veteran teachers may perceive the actions of their principal in different ways from less experienced teachers. Even when principals explicitly communicated that they did not want teachers to feel pressure associated with high-stakes testing and accountability, their continual focus on test scores and comparisons to other schools was interpreted by some teachers as pressure. As powerful as the mediating factor of principals seems to be in relation to high-stakes testing and accountability, principals should consider the role they potentially play in supporting teachers during reform initiatives in an effort to minimize the trend to narrowed practice that may occur.

Some teachers felt their influence was less significant to their students' achievement on the EOC than other factors that impacted their students negatively. This teacher perception related to teacher efficacy may be an important finding to consider when principals place inexperienced teachers in classrooms filled with at-risk students and charge them with preparing these students to face a high-stakes test that will impact whether or not students graduate from high school. Additional support may be needed for students and their teachers under the conditions many of the participants described. Professional development to help teachers feel more comfortable diversifying teaching strategies with all types of students may alleviate some of the frustration teachers expressed related to their perceived inability to motivate the unmotivated students. As teachers feel more efficacious with all students, and more confident in their effective use of diverse instructional strategies, student learning may surpass the goal of simply demonstrating proficiency on a single measure.

Early career teachers in the study, with the exception of William, did not feel they were fully prepared for the challenges of the classroom, especially when student teaching had been completed with higher-performing students than the students they were assigned as beginning teachers. Previous research indicates students of teachers who felt efficacious in their practice out-performed students of teachers with lower reported feelings of efficacy (Allinder, 1995). However, the early career teachers in this study tended to have pre-service observation and student teaching experiences with higher-performing students than the classes they were assigned to teach as new teachers. When student teaching experiences were not aligned to the types of teaching assignments new teachers were given, new teachers felt overwhelmed and unprepared. The lack of experience with all levels of students deprived early career teachers in this study the opportunity for mastery experiences that may have been valuable in developing their sense of teacher efficacy with all types of students. Intentionally preparing pre-service teachers for the types of realistic and relevant teaching experiences they will encounter is a necessity.

The way teachers view themselves, as teachers, becomes a factor that influences their future behaviors and interactions with others, including their students. Teachers' feelings of efficacy affected how teachers viewed themselves as teachers. Teachers who feel less efficacious with unmotivated students may be less likely to try new strategies to engage these students in learning. Principals and other instructional leaders may need to support teachers in ways that enhance their feelings of teacher efficacy in order to improve instruction and student academic outcomes. Additionally, this study revealed implications for school leaders and policymakers related to teacher retention. Several

teachers considered leaving the profession, or their current school, as a result of the pressure they felt related to high-stakes testing and accountability.

Conclusion

How teachers feel about themselves as teachers influences what they do in their classrooms. Teachers' perceptions of their professional identities are formed through the interactions of the teachers and their instructional practice, work environments, and feelings of teacher efficacy. Individual teachers experience the influence of high-stakes testing and accountability on their professional identities in unique ways.

This study explored the influence of high-stakes testing and accountability on teachers' professional identities through the use of qualitative methods. A conceptual framework based upon Bandura's theory of reciprocal determinism supported the exploration of the interactions of teachers' instructional practice, work environments, and teacher efficacy. Teachers' professional identities were shaped by these interactions and the indications they made to themselves about these interactions.

Participating teachers provided data that supported the creation of vignettes to illustrate the concepts of the study. Teachers' comments from the interviews were included in the narrative to support the findings of the study.

A key finding of the study was that most teachers relied heavily on direct instruction for reasons they attributed to high-stakes testing and accountability pressures, even when they believed other methods were better for their students. Related to this finding is the potential narrowing of teachers' role and purpose in their work as the influence of high-stakes testing and accountability interacts with their professional identities through their instructional practice, work environment, and teacher efficacy.

Another important finding was teachers expressed their professional identities in ways that positioned their identities in a student focus, or a teacher focus, whether peer or self. There appeared to be a relationship between whether or not teachers taught prior to the implementation of high-stakes testing and accountability and the influence of this context in the way teachers constructed their professional identities. Teachers' perceptions of their teacher efficacy were linked to the amount of energy they were willing to expend upon all students. Further, all of the teachers who expressed their professional identities in a student focus exhibited higher perceptions of teacher efficacy with all students than the remaining teachers in the study.

Principals and their actions related to accountability measures may also influence the way teachers construct their professional identities. Of the teachers who reported principals as the primary source of the high EOC emphasis in their schools, four of the five teachers positioned their professional identities in a strong teacher focus. These teachers also expressed lower perceptions of teacher efficacy with all students, particularly the unmotivated, or irresponsible students, than the other teachers in the study. Principals played a primary role in the ways that teachers experienced and interacted with the context of high-stakes testing and accountability within their schools. The actions of the principals, both explicit and implicit, were a cogent influence in the construction of teachers' professional identities.

The context of high-stakes testing and accountability is now integral to the lens through which teachers view themselves. In some cases, EOC tests are now the measure that validates their instructional practice. When asked to describe themselves as teachers, many teachers draw upon their EOC results to assess their worth. The influence of high-

stakes testing and accountability was shown to impact teachers' instructional practice, work environments, and teacher efficacy. How teachers give meaning to this influence will play a role in the way this context shapes their professional identities. Furthermore, teachers' professional identities themselves shaped teachers' interactions in the context of high-stakes testing and accountability. Teachers' decision-making regarding instructional practice, their relationships with colleagues and students, and their teacher efficacy will occur through interactions between the teacher and his or her professional identity. This study revealed information that can assist teachers, school leaders, and policymakers in limiting the unintended, and sometimes negative, consequences of high-stakes testing and accountability on teachers and their students.

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List of Appendices

Appendix A- Letter of Introduction

Appendix B- Questionnaire

Appendix C- Interview questions and probes

Appendix D- Informed Consent Form

Appendix E- List of Codes and Definitions

Appendix A
Letter to Algebra I Teachers

June 1, 2008 (Note to committee: The dates in this letter will vary by district.)

Dear [Insert Name of Algebra I Teacher]:

I am a graduate student enrolled in the doctoral program in Educational Leadership at Western Carolina University. I would like to invite you to participate in a research study to understand the impact of high-stakes testing and accountability on Algebra I teachers. As a former high school mathematics teacher, I have a sincere interest in exploring how Algebra I teachers feel about high-stakes testing.

Your participation in the study would involve being interviewed once for about 90 minutes. Following the interview, I will provide a copy of the interview transcription to you for your review. If you are selected to participate in the study, I will contact you to determine a time and location that is convenient for you to be interviewed.

The identity of all participants will be protected and data will be reported in a manner to maintain confidentiality. The findings will be based upon the group as a whole and will not be reported back to your school or district. This study will be shared with my dissertation committee and other appropriate members of the Western Carolina University community and the results will be published in my dissertation and may be used for future publications.

Potential benefits of this study include the contribution to the educational field through the exploration of the influence of high-stakes testing and accountability on teachers. This information will be useful to policymakers and educators. Participants will benefit by receiving a copy of the study findings upon request. There are no foreseeable risks to participants in this study.

I appreciate your willingness to be included in this study. Please feel free to contact me at (xxx) xxx-xxxxx or (xxx) xxx-xxxx or by email at xxxxxx@xxxxx.xxx if you have any questions or concerns about the study. You may also contact my committee chairperson, Professor Meagan Karvonen at (xxx) xxx-xxxx.

If you are willing to participate in the study, please complete the following questionnaire on the attached page and return it to me in the self-addressed, stamped envelope that I have provided by June 15, 2008. If you are selected to participate in an interview, I will contact you by July 15, 2008.

Thank you,
Janet H. Mason

Appendix B
Teacher Questionnaire

If you are willing to participate in this study, please complete and return this survey by June 15, 2008 to   Janet Mason

_____

_____

Contact Information

Name: _____
Mailing address: _____
Email Address: _____
        Telephone:

        Home: _(____)_____

        Work: _(____)_____

        Other: _(____)_____

Current Employer:

        District: _____

        School: _____

1)   How many total years of teaching experience do you have?

2)   How many of those years were you teaching high school math in
          North   Carolina?

3)   Please list your degrees and all areas of certification.

4)   Did you teach Algebra I in 2006-2007?   Please circle: Yes   or   No

5)   Did you teach Algebra I in 2007-2008?   Please circle: Yes   or   No

Thank you for your willingness to participate in this study. I will contact you by June 30, 2008 to schedule your interview if you are identified for participation.

Appendix C
Semi-structured Interview Protocol

Teacher Efficacy (Probes: Motivating (ability to) students; working with difficult, or unmotivated, students; influence on your students' achievement)
1. Describe the factors that you believe contribute to your students' performance on the EOC.
2. Tell me about the degree to which you feel you impact your students' achievement on the Algebra I EOC
3. When students are not proficient on the EOC, to what factors do you attribute their lack of proficiency?
4. Suppose you don't have as much success as usual with a particular class, what factors might cause the lack of success?
5. Describe your ability to work with difficult or unmotivated students.

Instructional Practice
6. Tell me about your Algebra I classes (Instructional strategies, motivation)
7. If Algebra I had no required EOC test, would you use these same strategies? Can you describe any strategies you would use that you don't currently use?

Environment
8. Describe the relationship among teachers in your department.
9. How do you believe teaching assignments are determined in your department?
10. How do you feel about teaching Algebra I?
11. How do you feel about the End of Course tests?
12. Why do you think you were assigned to teach this course?
13. How do you think other teachers and administrators in your school view Algebra I teachers and students?

Teachers' Professional Identity
14. How do you believe others would describe you as a teacher?
15. Describe the working environment for Algebra I teachers in your school.
16. Tell me how you felt when you received your EOC scores for your Algebra I classes. (probes: specific time, i.e. when students' scores were higher/lower than you expected)
17. Describe your ability to impact student achievement with students of different levels of mathematical ability.(high, low)(different levels of motivation)
18. Tell me "who you are" as a teacher
19. People often speak of teacher autonomy. What does that mean to you?
20. Describe the kinds of students whom you feel best-suited to teach?
21. How would you describe your profession to someone (a prospective teacher, community member?)
22. When talk among you and your colleagues turns to Eocs and our state's accountability system, what does the conversation reveal?
23. Describe your beliefs about your students' ability to learn mathematics?
24. How do you feel the public perceive the quality of teachers?
25. Describe the level of emphasis on test scores in this school?

Appendix D
Informed Consent

The purpose of this study is to explore the impact of high-stakes accountability on Algebra I teachers. Data will be collected through one-on-one interviews. The interview should last about one hour. Following the interview, a copy of the transcribed interview will be provided to you to review for accuracy.

Your participation in this interview will provide information about how high-stakes accountability impacts Algebra I teachers. The information gathered through this study may inform accountability policy in the future and benefit teachers in the future. Participants may benefit from receiving the results of this study. At your request, I will provide you with a copy of the findings of this study. There are no foreseeable risks associated with participation in this study

Prior to beginning the interview, I want to inform you of your rights as a participant in this study.

- Your participation in this interview is entirely voluntary.
- You may refuse to answer any question at any time.
- You are free to withdraw from the interview at any time without consequences.
- The data collected in this interview will be kept confidential. Although specific comments may be included in the report, they will be reported in a manner to protect your identity. Audiotapes and notes will be kept in a secure file and will be destroyed in five years.

If you have any questions about this study, please feel free to contact me at (xxx) xxx-xxxx or by email at xxxxxx@xxxxxxx. Additionally, you may contact my dissertation chairperson, Professor Meagan Karvonen at (xxx) xxx-xxxx or the Chair of Western Carolina University's Institutional Review Board at (xxx)xxx-xxxx.

Please initial all statements below that apply to you and sign if you are willing to participate in the dissertation research project as described above.

_____   I agree to participate in the interview
_____   I agree to have the interview audiotaped.
_____   I would like to receive a copy of the study finding.

_____
Signature   Date

Appendix E

List of Codes and Definitions

Efficacy

Concern	Teacher concern for themselves or students related to success in school or life.
Efficacy	The teacher's belief in his or her ability to influence student learning.
EOC Performance Factors	Any factor that teachers attribute to student performance on the EOC
Extra Mile	Any reference to something they believe they or someone is doing above expected behavior
Frustration	Reference to frustration of self or others, expressions of feeling defeated, unable to achieve goal
Responsibility	References to responsibilities of teacher, student, and others
Right to Fail	Specific references to students having a right to fail or choosing to fail.

EOC

Accountability	Specific references to accountability of self or others in relation to test scores, Algebra I, NCLB,or ABCs
Emotion/ Response to EOC scores	How teachers feel when they receive their test scores and what they do in response to those feelings
EOC feedback	Feedback from EOC results. This could be either from another person or the teacher's interpretation of the test scores
EOC Perceptions	Perceptions of the teachers or others regarding the end of course tests, particularly as it relates to teachers and students
Expectations	Expectations of teacher/others for students in class or on EOC

Environment

Change	References to changes in the teachers' work or schools
Department	Any reference to math department activities or relationships
EOC Emphasis	Description/references to the level of emphasis in the teacher's school regarding high-stakes testing/accountability
Pressure	Pressure that originates from the teacher or others
Principal feedback	Any mention of administrative feedback regarding teacher performance, including EOC results
Public Opinion	Any reference to the public's perception of teachers, whether in general, or specific to the participant,or his or her school.
Teaching Assignment	Teacher describes how teaching assignments are made in their school and how they feel about what they teach

Identity

Family Influence	Reference to family opinions regarding the teachers, their choice to enter/remain in the profession, or references to having a family member who is also an educator
Identity	The meaning teachers give to themselves, a professional self that is formed through teachers' interactions with themselves and others.
Interactions with others	Teachers interactions with others, specifically when those interactions provide feedback about teaching or themselves
Leave/Transfer	Specific comments indicating teachers leaving the profession or a particular school.
Summer	References to summer break as a reason to teach
Why Teach	The reasons or processes that teachers cite for entering the teaching profession, including advice for those entering, or considering the profession

Instruction

Algebra for all	Refers to teachers beliefs about students ability to learn mathematics, specifically Algebra I since it is a requirement for graduation.
EOC Impact	References decisions, behaviors, or circumstances in teaching Algebra 1 related to the EOC
EOC Preparation	Instructional strategies, resources, or practices specifically mentioned by the teacher which they employ to prepare students for the EOC
Instruction	Description of the instructional strategies and practices employed by teachers and their colleagues
Motivation	Specific references to how teachers motivate students, students motivation, or teacher motivation
Relevance	References to the relevance or lack of relevance of Algebra curriculum or EOC to real life applications or the teachers' perceptions of the regular lives their students will live