

JOB SATISFACTION, ORGANIZATIONAL HEALTH, AND ACCOUNTABILITY IN
SELECTED TENNESSEE MIDDLE SCHOOLS

A Dissertation

Presented for the Doctor of Philosophy Degree

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DEDICATION

To Mom and Dad

To Mimi (Grandmother)

To Sally Fox

To Drew and Cassie Pedigo (Stepchildren)

To Emory Hope Pedigo (Granddaughter)

To All My Students Who Have Made My Job Interesting

ACKNOWLEDGMENTS

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ABSTRACT

This quantitative study explored teacher perceptions of job satisfaction and school organizational health and whether significant differences existed between these perceptions and school performance. Empirical data were gathered by surveying a stratified, purposive, cluster sample of 177 teachers in selected middle schools across Tennessee; instruments used included the Organizational Health Index-Middle ([OHI-M]; Hoy, 2003) and the Job Satisfaction Survey ([JSS]; Spector, 1997). Secondary data on school performance—school achievement based on standardized test scores and value-added scores derived from Tennessee Value-Added Assessment System (TVAAS)—were extracted from the Tennessee Department of Education *Report Card* (2010). These were used to create the accountability matrix separating Tennessee middle schools into four quadrants: Quadrant I, high achievement and high value-added scores; Quadrant II, high achievement and low value-added scores; Quadrant III, low achievement and high value-added scores; Quadrant IV, low achievement and low value-added scores. Statistical analyses (e.g., ANOVA) helped to determine if any significant differences existed between the accountability matrix and the teacher perceptions of job satisfaction and organizational health, as well as teacher perceptions of job satisfaction and organizational health with the respondent demographic characteristics. A regression analysis was used to determine if any significant relationships existed between teacher perceptions of job satisfaction and facets of job satisfaction, and organizational health and dimensions of organizational health. This study yielded the following findings: (1) an inverse impact between job satisfaction and value-added scores, (2) a positive impact between

organizational health and student achievement, but an inverse one between organizational health and value-added scores, (3) a significant relationship between job satisfaction and organizational health, and (4) no significant differences between the demographic variables and the overall job satisfaction scores, but a significant difference was found between experience level and the total organizational health index. The results are more reflective of teachers from East Tennessee middle schools.

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CHAPTER 1

INTRODUCTION

In his first speech addressing education, President Obama (2009c) stated “America will not remain true to its highest ideals.... if we don’t do a far better job than we’ve been doing of educating our sons and daughters; unless we give them the knowledge and skills they need in this new and changing world” (§ 5). Obama also explained “we have innovative principals and passionate teachers and gifted students, and we have parents whose only priority is their child’s education” (§ 9). However, “despite resources that are unmatched anywhere in the world, we’ve let our grades slip, our schools crumble, our teacher quality fall short, and other nations outpace us” (§ 10).

Additionally, Obama made the following comments:

It’s time to start rewarding good teachers, stop making excuses for bad ones. It’s time to demand results from government at every level. It’s time to prepare every child, everywhere in America, to out-compete any worker, anywhere in the world. It’s time to give all Americans a complete and competitive education from the cradle up through a career. We’ve accepted failure for far too long. Enough is enough. America’s entire education system must once more be the envy of the world—and that’s exactly what we intend to do. (§ 14)

This speech harkens back to views expressed by President George W. Bush who pushed for the passage of the No Child Left Behind Act of 2001 (NCLB) to improve student learning. Under this mandate, all children would become proficient in math and language arts by 2014. With a renewed emphasis in education, Congress has made increasing demands for accountability, even when it has failed to fully fund most of the initiatives they put forward.

NCLB has increased achievement results for the lowest performing students, but at a cost to the higher performing students. According to Viadero (2008b), teachers are

focused more on moving low performing students to proficient levels than moving the higher performing students to advanced levels. The pressures of federal mandates also have come at a cost to teacher instruction. Weingarten (2008) stated “the single-minded focus on standardized tests has dictated an impoverished curriculum and pushed out other evidence of learning” (p. 1). Viadero (2007) agreed “teachers are adjusting their teaching practices in response to the law—but not always in ways that educators and policymakers might want” (p. 1). At the heart of the educational process is the student, not a standardized test taken by the students. Teachers are entrusted to educate our children. However, the federal government holds schools accountable through results from a state-mandated test. At the core of the educational process, teachers help students reach their potential, but this purpose is lost in the quest to improve test scores.

Davis (2006) stated, “The rush to accountability has had numerous effects on public schools, one of which involves the purposes of education. The impact is substantial because more emphasis is being placed on the scores achieved on high-stakes tests rather than on the achievement the scores represent” (p. 30). Researchers have concluded that high-stakes testing has led to teaching the test and narrowing the curriculum (Adams & Karabenick, 2000; Barksdale-Ladd & Thomas, 2000; Brown, 1993; Cimbricz, 2002; Davis; Gordon & Reese, 1997; Grant, 2000; Hoffman, Assaf, & Paris, 2001; Jones & Egley, 2004; Kelley, Conley, & Kimball, 2000; Kubow & Debard, 2000; Mabry, Poole, Redmond, & Shultz, 2003; Parker, 1994; Rapp, 2002; Snow-Renner, 2001). Pedulla et al. (2003) reported that the majority of research studies on high-stakes testing found a negative effect on instruction, curriculum, student learning, teacher and

student motivation, and school climate. Bevans, Bradshaw, Miech, and Leaf (2007) explained that school staffs are increasingly being held accountable for student academic performance, resulting in more emphasis being placed on environmental factors affecting student outcomes. According to Doran and Fleischman (2005),

...the NCLB approach rests on the assumption that assessment data can provide credible information to gauge how effectively schools and teachers are serving their students. Educators, however, recognize that because students come to school with different backgrounds, one-time assessments scores are not a fair way to compare teachers with one another when they work under vastly different circumstances. (p. 85)

Weingarten (2008) agreed with this sentiment, noting “we wouldn’t look only at a single year of achievement. Social scientists agree that much of the variation in test scores over a single year is random, without any particular significance, so it would be unfair to tie a school’s reputation and fate to one year’s data” (p. 2).

Implementation of NCLB has increased accountability in states, which then filters down to school systems and schools. Tennessee is no exception. The Tennessee General Assembly passed Governor Bredesen’s (2007) educational platform removing the limitations on the use of student test scores for evaluating teacher effectiveness and for making tenure decisions (Schelzig, 2010). For the first time, Tennessee used value-added scores in the evaluation of teacher effectiveness in the classroom. Literature can be found supporting the sentiment that value-added scores reflect the effectiveness of the teacher, school, and system (Ballou, Sanders, & Wright, 2004; Ross, Sanders et al., 2001; Ross, Stringfield, Sanders, & Wright, 2003; Ross, Wang et al., 2001; Sanders, 1998, 2004; Sanders & Horn, 1994, 1998; Wright, Horn, & Sanders, 1997). At the same time, others argue that not enough studies have been conducted on the validity of value-added models

(Amrein-Beardsley, 2008; Brown, 2004; Glass, 1995; Kupermintz, 2003; Meyer, 1997; Walberg & Paik, 1997).

With the raised expectation for teachers to reach the lofty goals of NCLB and the increased use of test data to hold teachers accountable imposed by state governments, studying the effect of this pressure on teacher job satisfaction and the school's organizational health is timely. The importance of the teacher has been demonstrated in a number of areas. For example, Darling-Hammond (1998) stated that "the single most important determinant of what students learn is the expertise of the teacher" (p. 6), with teacher qualifications accounting for 43% and class size accounting for 8% of the influence on student achievement. Although no individual home and family factor exerts this degree of effect, an aggregate of these factors account for 49% of the influence on student achievement. Moreover, in addition to teacher subject matter expertise and qualifications, extant literature points to the critical nature of teacher satisfaction with their work and the context within which this work is performed. Taylor and Tashakkori (1995) found a positive school climate is related to an increase in job satisfaction of school personnel, administrators, and teachers. Vail (2005) explained that "teachers who feel good about themselves and their work will look for ways to reach all their children, even those who have struggled in the past. They create an atmosphere where everyone wants to be, students included" (p. 11). Teacher attitudes, good or bad, trickle down to the students; therefore, it seems reasonable to expect that contented teachers are more likely than their dissatisfied colleagues to do a better job of teaching their students.

Statement of Problem

Due in large part to federal mandates established by NCLB, more pressure exists within the climate of the schools to increase student performance to proficient levels as measured through statewide tests. Teachers who are striving to meet these state-established proficiency levels experience different levels of stress resulting in a positive or negative effect on the teacher's job satisfaction. NCLB was designed to improve student achievement and to ensure the success of every student, both fostered by the assumption that job satisfaction and organizational health have had positive effects on student achievement. What remains to be discovered are the unintended consequences of NCLB itself on teacher job satisfaction and organizational health.

Purpose of the Study

The purpose of this quantitative study of selected Tennessee middle schools was to examine the relationship between teacher job satisfaction and teacher perceptions of the organizational health of the school. A secondary purpose was to determine if any differences existed between job satisfaction and organizational health in relation to the demographic variables self-reported by middle school teacher respondents. The dimensions of the Organizational Health Inventory-Middle (OHI-M, Hoy, 2003; Hoy & Sabo, 1998) and the facets of the Job Satisfaction Survey (JSS, Spector, 1997) were examined in light of the school accountability as measured by calculated standard scores (z scores) of school achievement and value-added scores taken from the *Tennessee Report Card* (2010).

Significance of the Study

With increased scrutiny by the state government and the pressures of achieving the goals set forth in NCLB, school systems must find methods to ensure student success. Teachers who are satisfied with their job will likely create a better learning environment for their students. If satisfied teachers create a healthier environment in the school, then a higher organizational health index score may result. Understanding more about the pressures of meeting federal mandates may provide insight to federal and state leaders on how to effectively measure the success of our teachers and their schools. Additionally, administrators can learn more about the effect of these mandates on the organizational health of the school and the job satisfaction of teachers. Teachers will have the opportunity to express themselves about a current educational trend through participating in this study. Literature examining the relationship between teacher job satisfaction and organizational health as well as the relationship between teacher job satisfaction and student achievement is scant. This research represents a substantive step at filling that gap.

Research Questions

The research questions for this study focused on the differences that existed between job satisfaction, organizational health, and school accountability, as measured by student achievement and value-added z scores. Additionally, a research question for this study focused on the differences among school demographic variables, job satisfaction, and organizational health. The remaining question for this study focused on the

relationships that existed between job satisfaction and organizational health. The

following questions were considered in conducting this study:

1. What is the significant difference between school accountability (school achievement and value-added z scores) and teacher job satisfaction in Tennessee public middle schools?
2. What is the significant difference between school accountability (school achievement and value-added z scores) and organizational health in Tennessee public middle schools?
3. What is the relationship between teacher job satisfaction facets as measured by the JSS (Pay, Promotion, Supervision, Fringe Benefits, Contingent Rewards, Operating Conditions, Coworkers, Nature of Work, and Communication), and organizational health dimensions as measured by the OHI-M (Teacher Affiliation, Collegial Leadership, Resource Influence, Institutional Integrity, and Academic Emphasis) in Tennessee public middle schools?
4. What is the significant difference among teacher demographic variables (gender, ethnicity, subject taught, degree status, years of experience, and desire to remain or leave the teaching profession), job satisfaction, and organizational health in Tennessee public middle schools?

Null Hypotheses

A null hypothesis is defined as a prediction that no significant relation, change, or difference between variables exist; and that any relationship or difference found would be a result of a chance relationship (Gay, Mills, & Airasian, 2009; Salkind, 2010). The null hypothesis for this study assumes that no significant difference exists between (a) school accountability (achievement scores and value-added z scores) and job satisfaction, (b) school accountability and organizational health, and (c) no significant difference exists among demographic variables, job satisfaction, and organizational health. The remaining null hypothesis assumes that not significant relationship exists between job satisfaction

and organizational health. The following null hypotheses have been established for this study:

- H₀₁ No significant difference exists between school accountability as measured by achievement and value-added z scores and teacher job satisfaction as measured by JSS in Tennessee public middle schools ($H_0p = .05$).
- H₀₂ No significant difference exists between school accountability as measured by achievement and value-added z scores and organizational health as measured by OHI-M in Tennessee public middle schools ($H_0p = .05$).
- H₀₃ No relationship exists between job satisfaction (Pay, Promotion, Supervision, Fringe Benefits, Contingent Rewards, Operating Conditions, Coworkers, Nature of Work, and Communication), and organizational health (Teacher Affiliation, Collegial Leadership, Resource Influence, Institutional Integrity, and Academic Emphasis) ($H_0p = .05$) in Tennessee public middle schools.
- H₀₄ No significant difference exists among teacher demographic variables (gender, ethnicity, subject taught, degree status, years of experience, and desire to remain or leave the teaching profession), job satisfaction, and organizational health ($H_0p = .05$) in Tennessee public middle schools.

Delimitations of the Study

Delimitations are characteristics of the study that intentionally define the boundaries of inquiry (Mertler & Charles, 2008). The researcher has applied the following delimitations to this study:

1. Only teachers certified to teach in Tennessee public middle schools were asked to participate.
2. Only middle schools (5th through 8th grade levels) were included.
3. Assessment data were drawn from the Tennessee Comprehensive Assessment Program (TCAP) achievement scores and Tennessee Value-added Assessment System (TVAAS) scores available on the *Tennessee Report Card* (2010).
4. Analysis of participant responses comprised completed questionnaires submitted within the given timeframes.

Limitations of the Study

According to Gay et al. (2009), limitations should be identified in a research study. These “limitations” are defined as aspects that the researcher has no control over, but may negatively affect the results of the study. The researcher has identified the following limitations for this study:

1. The study was limited to 40 middle schools rather than inclusion of all middle schools in the state.
2. Analysis of participant data was limited to the survey responses.
3. Instrumentation and teachers’ interpretation of given items may have affected the results of the survey.
4. The study was limited to the survey questions: the scope, definition, theme, and function of each question.
5. The number of teachers who returned the survey with valid responses limited the study.
6. The study was limited to the perceptions and honesty of the participants completing the surveys.
7. Results pertained to certified teachers in East Tennessee during 2010-2011 and were not generalizable across the United States.

Assumptions

Gay et al. (2009) describe the assumptions of a study as presumed to be true, but not verified. The research made the following assumptions regarding the compilation of the data for this study:

1. Teachers were willing to contribute data to this study through the completion of two separate surveys.
2. Participants were fully qualified to provide the data concerning organizational health and job satisfaction of teachers.
3. Items in the survey accurately measured the job satisfaction of teachers at the schools.

4. Items in the survey accurately measured the organizational health of the school.
5. The TCAP criterion-referenced achievement test served as a valid measure of student achievement.
6. The TVAAS (value-added) calculations represented reliable and valid measures of predicted student gains.
7. Participants answered accurately and honestly.

Operational Definitions

With the likelihood of multiple definitions for given phrases and/or words, the researcher chose to define a number of frequently used items. The researcher applied the following operational definitions throughout this study:

1. Accountability: Accountability is defined in terms of student achievement and value-added scores extracted from the *Tennessee Report Card*. It reflects one way to measure Tennessee's efforts to provide quality education and its response to mandates such as the No Child Left Behind Act of 2001 (NCLB) requiring that all students be proficient in math and language arts by 2014.
2. Achievement Score: The achievement score represents the educational level attained by students in math, language arts, and science as measured by the Tennessee Comprehensive Assessment Program (TCAP) Achievement Test and reported in the *Tennessee Report Card* (2010).
3. Job Satisfaction: Job satisfaction is the degree to which people enjoy their jobs, as measured by the Job Satisfaction Survey (JSS, Spector, 1997).
4. Organizational Health: Organizational health—the “personality” of the school (Hoy & Miskel, 2008, p. 198)—refers to a set of internal characteristics of the school identified on dimensions of academic emphasis, teacher affiliation, collegial leadership, principal influence, resource support, and institutional integrity comprising the health index of the Organizational Health Inventory-Middle (OHI-M; Hoy, 2003; Hoy & Sabo, 1998) instrument.
5. Value-added Score: The value-added score measures student progress within a grade and subject from year to year, as calculated by the mixed-method statistical analysis of the Tennessee Value-added Assessment System (TVAAS) (Sanders, Saxton, & Horn, 1997). This value-added score is used to

determine the effectiveness of the teacher, school, and system; it suggests the influence the school has on the students' performance.

Summary of Chapter 1

Teachers are faced with meeting the challenge of federal mandates. Increasingly, more states are holding teachers, schools, and systems accountable to these mandates. Limited research exists to determine the relationship between the pressures of the federal mandates and the job satisfaction of teachers or the organizational health of the school. This chapter set forth a study to help fill that research deficiency. It introduced the study with an overview, research questions and hypotheses, limitations, delimitations, assumptions, and operational definitions. The remaining four chapters provide the theoretical framework of the study, the design and methodological approach taken, findings, and implications. In particular, Chapter 2 includes a review of literature focused on three issues: accountability, job satisfaction, and organizational health. Chapter 3 outlines the research design and procedures for this study. Chapter 4 contains a description of the quantitative data collected and data analyses conducted. The final chapter presents the findings, conclusions, and recommendations for future research, followed by a list of references consulted and appendixes providing copies of instruments used, sample letter of cooperation, and introduction to the online survey.

CHAPTER 2

REVIEW OF LITERATURE

This review of the literature emanated from the historical and current educational thought in the three domains of interest in this study: accountability, job satisfaction, and organizational health. It represents the synthesized results of a comprehensive, though not necessarily exhaustive, search of books, scholarly and professional journals, relevant news articles and interviews from the mainstream point of view, speeches and presentations, reports, and legislative acts. Findings from this review contributed to the formulation of the theoretical framework that guides and supports this study; this framework is presented toward the end of this chapter.

Accountability

Accountability was examined first from the national perspective—the salient national policy changes and related mandates that have had pervasive and profound effect on the current educational system throughout the United States. Attention then turned to the ramifications of these changes in the state of Tennessee.

National Policy Changes in Education

By the 1950s, in the aftermath of wars and conflicts overseas and Depression-era struggles at home, the United States was somewhat forced to confront a number of internal social ills and needs. This heralded a period of change in society and its institutions. For education, changes began with *more* education for *more* people of all backgrounds and progressed toward a *better* education for everyone—from *quantity* to *quality*. According to Davis (2006), the *Brown v. Board of Education, Topeka, Kansas*,

347 U.S. 483 (1954) decision outlawed racially segregated schools and afforded equal access to all government-funded institutions. As a result, the federal government provided more funding for public education to produce greater academic gains for African-American students. This court decision marked the beginning of the federal government's involvement in holding states accountable for academic performance as a requirement for receiving federal funding. Then, after the Soviet Union launched Sputnik in 1957, questions and concerns quickly arose in the United States about the effectiveness of science education in the public schools and its reflection on the nation's standing in this arena. To regain dominance in science and related fields, the government passed the National Defense Education Act (NDEA) of 1958 designed to reform public education and to educate the brightest mathematicians and scientists in the world.

The Elementary and Secondary Education Act (ESEA) of 1965 was enacted to improve education and to provide more opportunity for economically disadvantaged children to climb out of poverty with a good public education. In 1969, the National Assessment of Education Progress (NAEP) was created to evaluate the achievement of students in the areas of mathematics, science, reading, language arts, and social studies.

During George Bush's administration in 1983, the National Commission on Excellence in Education (NCEE) released, *A Nation at Risk: The Imperative for Educational Reform*. In this report, the NCEE presented findings that indicated a weak curriculum, low expectations for students, inadequate time devoted to education, and teacher quality issues within the public school system.

Our nation is at risk. Our once unchallenged preeminence in commerce, industry, science, and technological innovation is being overtaken by competitors throughout

the world. This report is concerned with only one of the many causes and dimensions of the problem, but it is the one that undergirds American prosperity, security, [and] civility. We report to the American people that while we can take justifiable pride in what our schools and colleges have historically accomplished and contributed to the United States and the well-being of its people, the educational foundations of our society are presently being eroded by a rising tide of mediocrity that threatens our very future as a Nation and a people. (p. 1)

The publication of *A Nation at Risk* (NCEE, 1983) represented the driving force that spawned the standards and accountability movement and prompted politicians to increase efforts to raise the bar requiring tougher standards in education. The publication was subsequently used as a mechanism to reform our current educational system (Litchka, 2007; Smyth, 2008).

No Child Left Behind

“By the late 1990s, a swelling movement mobilized by business-minded coalitions seeking a nimble college-educated workforce for early 21st century labor markets lobbied states vigorously to require demanding curricula, more testing, and accountability” (Cuban, 2007, p. 7). In 2001, the passage of the No Child Left Behind Act of 2001 (NCLB, 2001) required that all students become proficient in the subjects of math and language arts by 2014. According to former U.S. Secretary of Education Rod Paige in *A Guide to Education and No Child Left Behind* (ED, 2004), the reauthorization of the ESEA with the NCLB legislation requested “states to set standards for student performance and teacher quality. The law established accountability for results and improved the inclusiveness and fairness of American education” (p. ii). This increased public attention on the accountability of teachers, schools, districts, and states for student education. As pointed out in the *Time* article, “Report Card on No Child Left Behind” (2007), the accountability movement had moved fast-forward into American households.

President Bush wanted Congress to renew NCLB during his tenure; however, much debate ensued concerning the feasibility, equity, and effectiveness of the program, with particular concern over the accountability measures put into place. Loup and Petrilli (2007) surveyed 12 Washington insiders and learned that 11 of the 12 believed that NCLB would *not* be reauthorized before George Bush left the presidency. They were correct! Loup and Petrilli found a consensus with many provisions of NCLB, but took issue with the requirement that all students meet proficiency. There was also some question as to whether to allow students in troubled schools to select a different school and whether to include the immigrant student population in proficiency requirements.

The implementation of NCLB raised even more questions. Peterson (2007) proclaimed, “The microscope NCLB uses to get the information the president [Bush] said he wanted contains a lens that distorts” (p. 46). The distortion existed because individual states were allowed to establish their own proficiency benchmarks for students. In many cases, students were judged by a pass-fail score when an A-F scale would have been a more precise and useful measure. These individual state-established standards resulted in a proliferation of a wide variety of proficiencies across all states. In essence, the United States had 50 different standards and proficiency levels, distorting any comparisons made of the academic performance of students. For example, using the NAEP test as a gauge, Massachusetts had one of the highest proficiency standards; Tennessee ranked near the bottom in terms of school performance. However, the state itself reported that “only 7% of the schools in Tennessee are failing” (p. 49) using its own standards, proficiency benchmarks, and TCAP scores.

According to Peterson (2007), the last distortion of NCLB came with academic accountability suggesting that students and teachers (people) versus entities (schools and systems) be held answerable for student learning. Beachum and Dentith (2004) explained:

The pressure for accountability in student achievement has intensified as government scrutiny grows intense and ever-threatening. A dispiriting public opinion and an overall diminished confidence in the abilities of schools to succeed have surfaced even as expectations for schools are on the rise. (p. 276)

There is little question that this clamor over accountability has had considerable impact on public schools and has cast a questioning light on the very purposes of education itself. According to Davis (2006), “The impact is substantial because more emphasis is being placed on the scores achieved on high-stakes tests rather than on the achievement the scores represent” (p. 30).

High-stakes Testing

High-stakes testing has often led to teaching the test and narrowing the curriculum (Adams & Karabenick, 2000; Barksdale-Ladd & Thomas, 2000; Brown, 1993; Cimbricz, 2002; Davis, 2006; Gordon & Reese, 1997; Grant, 2000; Hoffman et al., 2001; Jones & Egley, 2004; Kelley et al., 2000; Kubow & Debard, 2000; Mabry et al., 2003; Parker, 1994; Rapp, 2002; Snow-Renner, 2001). Bushaw and Gallup (2008) asked respondents about the amount of emphasis placed on achievement testing in public schools in their community and found that 37% reported “too much;” 23%, “not enough,” and 34%, “about right.” However, only 20% indicated that passing the test at the end of the year should be used to determine the school’s performance, and 80% responded that students should show improvement during the year to determine the school’s performance.

The majority of research studies on high-stakes testing found a negative effect on instruction, curriculum, student learning, teacher and student motivation, and school climate (Pedulla et al., 2003). As explained by Bevans et al. (2007), school staffs were increasingly being held responsible for student academic performance, resulting in more emphasis being placed on the environmental factors involved. Taylor and Tashakkori (1995) saw a positive school climate as supporting an increase in job satisfaction of school personnel, administrators, and teachers. Professional development and updated training might be needed in some cases. Darling-Hammond (1998) stated

...that more testing doesn't create more learning. And rewards and sanctions designed to motivate people aren't enough. The real issue isn't motivation; the real problem is a knowledge problem. Teachers need to know more today about how to teach to meet a variety of needs. (p. 10)

As with other services and products, customer satisfaction matters in education. Bushaw and Gallup (2008) asked their survey participants to grade public schools in their community and found that 46% ranked schools with an A or B grade; 30%, an average C, and 16%, either a D or F. When asked about the school their child attended, 72% of the respondents ranked their school as A or B; 14%, C, and only 9%, D or F. When they asked the respondents about public schools nationwide, only 22% of the respondents ranked public schools with an A or B; 44%, C, and 18%, D or F.

American Recovery and Reinvestment Act (ARRA)

Educational excellence, teacher education, and teacher support were viewed as pressing issues in American politics today (Whitney, Golez, Nagel, & Nieto, 2002). President Obama himself said in his inaugural address (2009a), "Homes have been lost, jobs shed, businesses shuttered. Our health care is too costly; our schools fail too many"

(¶ 5). The number of new K-12 teachers employed in the next decade will increase to over two million due to increased student enrollments, reduction of class size, and teacher retirements (Dyal & Sewell, 2002). In response to the American Recovery and Reinvestment Act (ARRA), Noguera and Blankstein (2009) stated,

We know that America's school systems need more than just money to fix the many problems they face, and that increased funding alone will not produce better results. New approaches to educating children and managing schools and districts are required to bring about the kinds of changes we wish to see. (p. 2)

Following the passage of ARRA, President Obama (2009b) addressed a joint session of Congress and mentioned education with a mostly negative connotation throughout his speech:

1. Our children will compete for jobs in a global economy that too many of our schools do not prepare them for (¶ 8).
2. Because of this plan, there are teachers who can now keep their jobs and educate our kids (¶ 15).
3. The third challenge we must address is the urgent need to expand the promise of education in America (¶ 61).
4. We have the highest high school dropout rates of any industrialized nation. And half of the students who begin college never finish (¶ 62).
5. Our schools don't just need more resources. They need more reform. That is why this budget creates new incentives for teacher performance, pathways for advancement, and rewards for success. We'll invest in innovative programs that are already helping schools meet high standards and close achievement gaps (¶ 65).
6. We will end education programs that don't work (¶ 72).

However, President Obama did place some of the blame on parents saying,

“Responsibility for our children's education must begin at home” (¶ 68). A young girl who attended a school that was in desperate need of repair wrote a letter to Congress

requesting assistance, with the reminder that the students were the future leaders of the country. Obama responded, “We are not quitters” (§ 90).

NCLB and Value-added Assessment

According to Wallis and Steptoe (2007), “The heart and soul of No Child Left Behind are its requirements for annual testing and proof that students of every [type] are making adequate yearly progress” (p. 37). With proficiency requirements increasing to meet the 100% goal established for 2014, national and state governments were looking for alternative measures for student achievement. One alternative to measuring student achievement against Adequate Yearly Progress (AYP) was found in Tennessee. Sanders (Sanders et al, 1997) had developed the value-added growth model. This model evolved into the TVAAS, a system that was later fully vetted by the General Accounting Office based on its compliance with NCLB and the possibility of its being used in other states.

In reaction to criticism concerning the use of student achievement scores as a one-test measure of the academic effectiveness of the teacher, school, and system, former U.S. Secretary of Education Margaret Spellings (ED, 2005) agreed to pilot states in the use of an alternative scoring system based on the value-added and/or growth of the student during a one-year period to determine the academic effectiveness of teacher instruction. North Carolina and Tennessee received approval to implement growth models for the 2005-2006 school year, followed by Alaska, Arizona, Arkansas, Delaware, Florida, and Iowa for the 2006-2007 school year. Spellings reminded everyone that “a growth model is not a way around accountability standards. It’s a way for states

that are already raising achievement and following the bright-line principles of the law to strengthen accountability” (p. 1).

Accountability in Tennessee

In 1992, Tennessee had a major reform in education that included Sanders’ statistical mixed-method approach as the accountability system for education, the Tennessee Value-added Assessment System (TVAAS). According to the State Collaborative on Reforming Education (SCORE, 2009) in its report, the Chamber of Commerce gave Tennessee a grade of “F” for “Truth in Advertising” because of claims made. Tennessee affirmed that 90% of its students were proficient in reading; the NAEP test, only 26.5%. The state maintained that 88.8% of students were proficient in math; the NAEP test, only 26%. As a result, Governor Bredesen and the Tennessee State Board of Education launched the Tennessee Diploma Project (TDP) which changed high school graduation requirements, aligned the TCAP with the NAEP test, and developed a new set of standards for middle and high school students (Stewart, 2009a).

Tennessee Historical and Contextual Background

During Tennessee Governor Lamar Alexander’s administration (1979 to 1987), several educational initiatives took place including the Education Governance Reform Act (EGRA) and Comprehensive Education Reform Act (CERA). EGRA made the State Board of Education independent and gave it the authority to set policies for the distribution of school funding. As a response to the CERA, Tennessee created the Better Schools Program and the Career Ladder program that changed vocational/technical education, increased funding for instructional materials, provided a comprehensive

teacher evaluation program with pay incentives, and made changes to standardized testing in Tennessee.

In 1990, the State Board of Education published the *Master Plan* that focused on performance expectations, annual reporting of performance, and state-level accountability with provisions for value-added analysis. According to Sanders and Horn (1994), the *Master Plan* moved Tennessee's educational system to a position that would focus on results. During the same year, the State Department of Education published the 21st *Century Challenge* plan with goals and objectives compiled by the Commissioner of Education Charles E. Smith after he visited 139 school systems. The plan contained 12 major goals for public education in Tennessee (Smith, 2004) aimed to: (1) involve parents in the educational life of their children; (2) provide teachers with competitive pay, better working conditions, and more respect; (3) place principals in charge of their schools; (4) allow superintendents to serve as the CEO of the school system; (5) bring accountability to the schools; (6) increase technology, allowing schools to become 21st Century learning institutions; (7) involve the business community in long-range planning and goal setting for public education; and (8) give students the opportunity to meet their potential.

Under Tennessee Governor Ned McWherter's administration (1987-1995), the Education Improvement Act (EIA) was enacted, founded on principles outlined in the 21st *Century Challenge* plan. Originally introduced on February 4, 1991, the EIA legislation did not actually get passed until more than a year later, largely due to debate over a change from sales tax to income tax as the major revenue source for Tennessee.

After a special session of the General Assembly, a Tennessee Chancery Court decision in favor of 77 small schools claiming adverse effect of funding distribution to small rural schools, and continued debate over a stated income tax, on March 11, 1992, Governor McWherter at last signed the EIA with a half-cent increase in the state sales tax. The EIA included the following educational initiatives: (1) created the Basic Education Program (BEP), a new state funding formula for local education; (2) allowed local educational systems to appoint their superintendents; (3) developed an accountability system requiring local schools and systems to meet state standards and goals; (4) created class size standards for schools across Tennessee; (5) laid the groundwork for annual assessments and adoption of a performance model for schools and systems; and (6) increased the sales tax by a half-cent to support the new funding formula for school systems.

In view of the impending increase in the sales tax, Tennessee General Assembly legislators were very concerned with obtaining results in holding teachers, schools, and districts accountable to their students. To measure these results, Tennessee General Assembly agreed to adopt the Sanders Model (Sanders et al., 1997), better known today as the Tennessee Value-added Assessment System (TVAAS) for reviewing the teacher, school, and system effects on educational progress. In addition, the EIA outlined the following accountability issues: (1) established the provision to place local school officials on probation or even to remove them; (2) created the Office of Education Accountability within the Comptroller of the Treasury to monitor school performance; (3) created high school subject end-of-course (EOC) exams; (4) required high school

students to take exit exams and to pass the Gateway tests in math and language arts to receive a diploma; (5) strengthened annual state reporting of public school performance; and (6) required the State Board of Education to make rules concerning standards of fiscal accountability and soundness for local school systems.

In 1993, the Tennessee Supreme Court overruled the Court of Appeal's decision and upheld the Chancery Court's decision in favor of the 77 small schools. Following the court decision, the General Assembly adopted Small Schools II, *Teacher Salary Equity Plan*, to resolve some of the issues involved with the BEP plan for distribution of funds to local school systems. In 2002, the Tennessee Supreme Court ruled that the Small Schools II legislation passed in 1993 did not equalize teacher salary funding in public schools. In 2003, the General Assembly distributed an additional 27 million dollars to districts with the lowest teacher salary levels across Tennessee.

Tennessee Diploma Project

According to Stewart (2009a), Tennessee schools were ranked near the bottom of national academic performance based on national assessments. As a result, the Tennessee Board of Education developed a task force in 2005 to examine high school student performance. In 2007, Tennessee joined 35 other states in the American Diploma Project to ensure that all students graduate from high school prepared for college and/or the challenges for work. When looking at 100 graduates from a Tennessee high school, officials were shocked at the results: only 63 graduated on time, and only 39 of them attended college. In addition, only 27 of the 39 students will become a college sophomore, and only 17 students will graduate from college within six years. Only 18%

of Tennessee's students met all four benchmarks compared to 23% nationally. Stewart (2009b) identified the following new TDP graduation requirements: (a) 4 English credits; (b) 1 math credit each year (4 total); (c) 3 science credits; (d) 3 social studies credits; (e) 1 ½ credits of health, physical fitness, and wellness; (f) ½ credit in personal finance; (g) 2 credits in foreign language; and (h) 1 fine arts class. In addition, students were required to take EOC exams in Algebra I and II, geometry, Biology I, U.S. History, chemistry, physical science, and English I-III. After full implementation, the EOC test will account for 25% of the student's final grade. If students want to graduate with honors, then they must meet the following benchmark scores for the ACT: 18 on English, 22 on math, 21 on reading, and 24 on science.

In reference to all of the changes to Tennessee standards and testing requirements as a result of the TDP, the *Murfreesboro News Journal* (2009) printed, "With all of that ahead, reaching the new requirements will require a Herculean effort by parents, teachers, staff, administrators and, most of all, students" (p. 10B). Learning First Alliance (2008) stated, "Educators, parents, communities, and policymakers at all levels share responsibility for students' learning" (p. 2), and multiple measures should be used to determine success and student growth over time rather than focus on labels and sanctions for struggling schools. While high schools were changing to meet the new standards set forth in the TDP, the educational growth of elementary and middle school students (TCAP grades 3-8) were assessed from year to year through the TVAAS.

Former Secretary of Education Margaret Spellings (U.S. Department of Education, 2008) told state school chiefs that she would allow ten states to measure

student progress with growth models, thereby transferring focus on academic achievement to student gains. Schools would still have to reach 100% proficiency in math and reading by 2014. Under her leadership during the administration of President George W. Bush from 2005 to 2009, the growth model concept spread to additional states across the nation. With the support of the National Education Association (NEA) and American Federation of Teachers (AFT), the U.S. Department of Education was to grant \$53 million to 14 states to create a growth model assessment program within their state. As it turned out, Sanders and his colleagues (Sanders & Horn, 1994; Archer, 1999) had already created the first statewide growth model or TVAAS. Then, for the first time, the Tennessee General Assembly passed legislation in 2010 requiring that the TVAAS results be used in the evaluation process for teachers in elementary, middle, and high schools.

Tennessee Value-Added Assessment System (TVAAS)

Design and development of the TVAAS began at The University of Tennessee, where Sanders and his staff created and maintained the database and related software applications for the system and generated reports concerning student, teacher, school, and district results in terms of academic progress. Dr. Sanders remained at The University until 2000 when he joined ranks with the SAS Institute as it assumed management and operation of TVAAS through a contractual agreement with Tennessee. With the continued help of Dr. Sanders, the SAS Institute currently maintains the TVAAS database and publishes results for school systems and districts (*Tennessee Report Card*). According to SCORE (2009), “Tennessee has one of the best longitudinal data systems in

the country, the state's data system is grossly underutilized by most teachers, administrators, and policymakers across the state" (p. 18).

Sanders and Horn (1994) defined assessment as the "tool for educational improvement, providing information that allows educators to determine which practices result in desired outcomes and which do not" (p. 301). From this basic premise, TVAAS evolved conceptually, structurally, and technologically through a number of stages and models for tracking student academic growth over time such as the nested model, cross-classified model, and the Education Value-Added Assessment System (EVAAS) projection model, each with its own strengths and shortcomings.

For example, Sanders (2004) described the EVAAS as a multivariate response model (MRM) which, in essence, provided a statistical formula using past academic achievement to predict future scores. In doing so, the EVAAS model employed projection parameters generated by student regression coefficients of one cohort to predict the results of a second cohort and estimated means of the "average school." According to Sanders, the MRM had several advantages over other models. All data, no matter how incomplete, from every student were used, allowing for the entire covariance structure of the test data to be exploited, increasing the reliability of the projections, mitigating the impact of measurement error by maximizing use of the additional data, and minimizing student selection bias, again through use of all student data. Appropriately scaled scores required by the model ensured a one-to-one relationship between students and scores, and these student scores were linked to all previous classrooms (the layering effect). Finally, the model offered protection against known or unknown influences on

student achievement outside the control of the educational intent of the test. As stated by Wright et al. (1997), this supported using projections in conjunction with NCLB because:

Students who are currently below proficiency but who are on track to be proficient at some future point should not be held against a school (or district), especially if that school has done a good job of accelerating students toward proficiency. In effect, this carries the adequate yearly progress idea to the student level. Projections provide a convenient way to identify whether or not a student is on track to be proficient. (p. 11)

The value of these future projections depended on state definitions of proficiency.

Assessments in math and language arts needed to be focused on NCLB proficiency. High school EOC exams offered another opportunity to project future proficiency in the given subject matter, with the possibility that a predicted score above proficiency would indicate the student was on track to meet the proficiency standards. Lastly, the U.S. Department of Education (2004) needed to decide how this projected proficiency would be counted toward meeting the demand of AYP under NCLB. If projected scores were higher than the benchmark for proficiency, then the student would appear to be meeting AYP and NCLB standards.

TVAAS used a statistical mixed-model theory that allowed a multivariate, longitudinal analysis of student achievement data (Sanders & Horn, 1998; Sanders et al., 1997). According to Sanders et al., the repeated measures MRM allowed for the inclusion of all students regardless of the amount of missing test scores from previous years. To use TVAAS data to evaluate the effectiveness of teachers, each test had to be highly correlated with curricular objectives administered annually “with fresh, equivalent, non-redundant tests that exhibit a high level of reliability and validity” (Sanders & Horn, 1998, p. 255). The system drew its raw data from the Tennessee standard measures of

student achievement: the student TCAP scaled scores in math, language arts, science, and social studies in the norm-referenced portion of the TCAP and the EOC test scores on several different high school subjects (Sanders et al., 1997). Each student's test data were accumulated over time and linked to the school, system, and teachers of the student.

Requiring at least three years of data to assess the effectiveness of teachers, schools, and systems in student growth, TVAAS used the students' scaled scores longitudinally to model their learning pattern, resulting in the statistical phenomenon that the individual students served as their "own control" (Sanders & Horn, 1998; Sanders, 1998; Sanders et al., 1997) and provided a "blocking factor"—a measurement of the teacher, school, and system effects to be calculated free from socioeconomic factors. In other words, variables such as the socioeconomic level, race, and educational attainment of parents could be controlled (blocked). Therefore, the only factor affecting the academic growth of the student became the effectiveness of teacher, school, and system, and among those, according to Sanders and Horn (1998), teacher effectiveness emerged as the most important.

Some concerns remained about the equity of the TVAAS results and whether they overlooked the effect of certain socioeconomic conditions. However, three different studies and the evaluation of scores showed cumulative gains for schools across the entire state that were statistically unrelated to the racial composition of schools, the percentage of students receiving free and reduced-price lunches, or the mean achievement level of the school (Sanders, 1998; Sanders & Horn, 1998). These consistent findings supported

the determination that the system did not need to include exogenous co-variables to ensure fairness.

Ballou (2002) identified three problems with using the value-added assessment model as a mechanism to hold schools accountable for student learning: inaccuracy of current testing methods (e.g., unequal difficulty of test questions); attribution of some gains to factors other than the quality of a given teacher, school, or district; and no firm basis for comparing academic gains of students across levels of ability. Ballou commented that test questions typically varied in difficulty as could be seen in the evaluation of the TCAP by Prentice Hall through use of item-response theory.

Item-response theory, the probability that a student will answer a given item correctly, is assumed to depend on the student's ability and on the difficulty of the item, as expressed in a mathematical formula. Neither a student's ability nor the difficulty of the item can be directly observed, but both can be inferred from the pattern of answers given by a particular student as well as by other students taking the same test. (p. 14)

SCORE (2009) identified four downsides to TVAAS: (a) some state officials' concern about the accuracy and reliability of TVAAS; (b) question of effective use of TVAAS results by teachers, principals, and superintendents; (c) data made available to teachers, schools, and systems in an untimely manner; (d) possible inefficiency and need for integration of multiple educational databases outside of TVAAS maintained by the state. Belendardo (2001) explained that, in the age of accountability, school success was determined by student performance on standardized tests while overlooking the importance of student, teacher, and parent effort. This effort might be dependent on the underlying climate or culture of the school.

Viadero (2008a) observed that the EVAAS, an off-shoot of TVAAS, “is opaque, is possibly flawed, and has not been subjected to enough external review to merit its widespread use in school systems” (p. 1). For example, Viadero maintained that “EVAAS compares students’ year-to-year academic growth with their own progress from previous years. ‘A kid is coming from the same home this year as he was the year before’” (p. 2), somewhat unilaterally upholding the premise of Dr. William Sanders that the student operated as his/her “own control.” Further validation seemed in order. Doran and Fleischman (2005) “recognized that because students come to school with different backgrounds, one-time assessment scores are not a fair way to compare teachers with one another when they work under vastly different circumstances” (p. 10).

Doran and Fleischman (2005) pointed out that value-added models assumed scaffolding existed between grades, with curriculum increasing in difficulty as students progressed through their education and allowing for a value-added measure to be obtained for each student. More importantly, by assuming the students served as their own control, this implied that all factors affecting student achievement were controlled except for teachers’ effectiveness in the pedagogy of the curriculum (Sanders et al., 1997). According to Doran and Fleischman, “No empirical research validates the claim that value-added models accurately identify the most effective teachers” (p. 3). They questioned the validity of a statistical model that sifted through all other factors potentially influencing student scores (e.g., socio-economic status, home environment, parental influence, etc.) and that isolated teacher effectiveness as the only one helping to explain differences in student academic achievement.

The news article, “Value-added Is One Measurement of Student Learning” (Value-added, 2008), provided a brief explanation of gain scores along with the rankings for all of the elementary and middle schools located within the local community. Although it highlighted the importance of accountability, the article failed to reveal that these same value-added scores were used in Tennessee to determine the effectiveness of teachers. In other words, positive value-added scores equated to a highly qualified status; teachers with a negative value-added score did not receive the highly qualified status. This begged the question of how use of scores might affect teacher job satisfaction.

Job Satisfaction

Job satisfaction was explored through the research concerning the determinants of job satisfaction and the current status of *teacher* job satisfaction in that light. Focus was on how to define job satisfaction, the shortage of teachers and why many chose to leave the profession, and factors affecting teacher job satisfaction.

Job Satisfaction Defined

Definitions for job satisfaction included aspects such as the extent an individual enjoyed work, personal feelings held positively or negatively toward the job, the extent to which the individuals perceived their needs were being met, the fairness of return on personal investment in the job, the difference in the actual and perceived benefit of performing the job, the relationship between one’s achievement and the value of that achievement, and sense of fulfillment derived from the job environment (Brewer, 1998; Evans, 1997; Houffe, 2006; Laweler, 1973; Locke, 1969; Lofquist & Dawis, 1991; Smith, Kendall, & Hulin, 1969). Job satisfaction was considered a desirable goal for

organizations because satisfied workers would perform at higher levels than those who were not satisfied (Chambers, 1999). Shann (1998) and Kim and Loadman (1994) found the student-teacher relationship to be the number one predictor of teacher job satisfaction.

Shortage of Teachers and Reasons for Leaving

Gray and Smith (2005) stated, “The shortage of teachers in America’s classrooms is reaching epidemic proportions... and policy makers seem to be treating the symptoms, not its causes” (p. 7). According to statistics published by the National Center for Education Statistics (NCES, 2007a), 3,214,900 public school teachers were teaching during 2003-2004, and 84% remained in the teaching profession while 8% left it. The number of teachers who left the teaching profession has been increasing over the last few years with 132,300 (5.6%) leaving in the 1988-89 school year; 167,600 (6.6%) in the 1994-1995 school year; 221,400 (7.4%) in the 2000-01 school year; and 269,600 (8.4%) in the 2004-2005 school year.

Riley (1999) observed that the nation would need two million teachers with better qualifications during the next ten years. Bolich (2001) predicted that nearly 50% of the new teachers would leave teaching in the state they began in. Several articles, studies, and reports provided supporting statistics or predicted that an estimated 25% of teachers experienced dissatisfaction and that 30% to 50% of teachers would resign within three to seven years of teaching (Bolich, 2001; Byrne, 1998; Mertler & Charles, 2008; NCES, 2007a; Stansbury & Zimmerman, 2002; Wilkins-Cantor, Edwards, & Young, 2002; Woods & Weasmer, 2004). The NCES (2007b) determined that 57% of teachers who started teaching in 1993 were not teaching in 2003. In its Teacher Follow-up Survey

(TFS), the NCES (2007a) surveyed 7,429 former and current teachers and found that 2,653 teachers (36%) had left the profession by the following year.

Reasons for leaving ranged from environmental factors (Ingersoll, 2001) to personal or professional reasons such as family concerns, poor salary, poor administrative support, and student discipline problems (Buckley, Schneider, & Shang, 2005) to the broad spectrum of issues involved in modern teaching (Byrne, 1998). Statistics (NCES, 2007a) for teachers in the 2004-2005 school year indicated the following reasons reported: retirement (31%); pursuit of a different career (25%); family or personal reasons (20%); pregnancy or child rearing (19%); dissatisfaction with teaching assignment or previous school (16%); dissatisfaction with teaching as a career (15%); school staffing action, e.g., reduction, lay-off, school closing, etc. (15%); better salary or benefits (14%); health (12%); change in residence (11%); educational opportunities to improve career opportunities within the field of education (9%), and educational opportunities to improve career opportunities outside the field of education (5.3%).

Factors Affecting Job Satisfaction

Houffe (2006) identified the following workplace conditions that have had an effect on teacher satisfaction: organizational culture, racial composition, and administrative control. Additionally, Houffe indicated that teachers with higher track students tended to have a higher level of job satisfaction and greater level of trust in their students than teachers who taught students in the vocational/technical track. Generally speaking, teachers who trusted their students experienced higher levels of job satisfaction; otherwise, a distrustful relationship would be accompanied by insecurity,

unease, and anxiety. The more teachers trusted their students, the more satisfied they were with their job.

Brunetti (2001) and Marston, Brunetti, and Courtney (2004) found that teachers were highly satisfied with their jobs because they enjoyed working with young people, watching them learn and grow. Meister and Melnick (2003) identified the eight most serious concerns of novice teachers: disciplining students in the classroom, motivating pupils, dealing with individual differences, assessing students' work, building relationships with parents, organizing class work, lacking supplies and materials, and dealing with individual student problems.

Billingsley and Cross (1992) asked teachers how long they planned to teach and discovered that more special education than regular education teachers were planning to leave the teaching profession early. They reported that the teachers definitively planned to leave as soon as possible (6.7% special and 5.3% general education), and would probably continue teaching until something better came along (22.8% special and 17.2% general education). Billingsley and Cross stated that lower levels of conflict, work involvement, and leadership support influenced both special and general educators' satisfaction.

A study by Taylor, Zimmer, and Womack (2005) reported the following descriptive research findings about teachers in an Arkansas school system: 57% felt physically threatened by students at times; 44% felt that students might harm them if possible; 68% indicated that their job did not excite them anymore; 40% felt too much was expected of them, and 59% dreaded going to work. However, 94% of the teachers

were glad they chose the teaching profession; 96% enjoyed teaching their subject; 96% believed they were good teachers, and 79% would choose the teaching profession again. Clausen and Petruka (2009) found that teachers could handle one stressful situation, but when those teachers had to deal with multiple issues and/or prolonged stress from a particular situation, then they began to experience burnout. Clausen and Petruka recommended some mechanisms for administrators to use to assist teachers who experienced high levels of stress: (a) allow more time for activities that would provide them some relief, (b) provide an opportunity share concerns through a group network or buddy system, (c) empower teachers to redesign work schedules, and (d) encourage a team-based approach to leadership with more collaboration between teacher colleagues within the school.

Teachers generally did not receive many extrinsic rewards (e.g., promotional opportunities, higher salaries, fringe benefits, job security, and recognition of performance); they often derived their rewards through intrinsic sources in the work itself and contact with students. Intrinsic sources of satisfaction and reward were identified in a variety of ways: great ideas, immortality, artistry, a passion for learning, and making a difference (Eisner, 2006); developing positive relationships with students, changing their attitudes, and helping them to achieve (Dinham & Scott, 2000); students' achievement and sense of accomplishment when learning and striving to make a difference in society (Pearson & Moomaw, 2005); reflectivity, resilience, collegiality, a love of children, and a love of learning (Sarafoglu, 1997); autonomy and teacher motivation (Davis & Wilson, 2000). Clausen and Petruka (2009) stated that, even though teachers might be

intrinsically motivated by their work, their home life and well-being might also suffer from their intense focus on their job.

Linked with job satisfaction by some research (Brunetti, 2001; Kim & Loadman, 1994; Klecker & Loadman, 1966; Pearson & Moomaw, 2005; Ulriksen, 1996), teacher autonomy referred to the amount of control teachers had over themselves and their work environment (Pearson & Hall, 1993). Pearson and Moomaw (2005) found that a relationship between the curriculum, general teacher autonomy, and job satisfaction was not supported, but professionalism and empowerment supported greater levels of satisfaction. In fact, a major cause of dissatisfaction was the lack of authority of teachers to make curriculum decisions (Woods & Weasmer, 2008), suggesting that an increased opportunity for teachers to share authority and to participate in the decision making process would provide a climate enhancing their satisfaction (Taylor et al., 2005).

Collegiality and collaboration were identified as components that promoted satisfaction among teachers (Leithwood, Leonard, & Sharratt, 1998). Woods and Weasmer (2004) pointed out that the “lack of administrative and collegial support, budget constraints, a flagging sense of personal teaching efficacy, and a controlled curriculum often squelch [the] enthusiasm” (p. 118) of teachers during their first five years. They explained that a shared collegial investment between a novice and veteran teacher provided the opportunity for both to benefit from the exchange of experiences and knowledge in the classroom. The novice could share his/her experiences and experiment with different teaching strategies, while the veteran teachers could validate their own teaching practices within the classroom. In addition, collegiality could be encouraged

through holding “support meetings,” allowing teachers to build relationships with other teachers within the school system, and sharing leadership roles within the school. As active participants in the school’s decision-making, teachers could become change agents in the development and delivery of the curriculum. When teachers felt vested in creating the shared goals of the school, then they were more satisfied with their work.

According to Spector (1997), the job characteristic theory “states that people who prefer challenge and interest in their work will be happier and more motivated if they have complex jobs, as defined by the five characteristics” (pp. 33-34) of skill variety, task identity, task significance, autonomy, and job feedback. Kim and Loadman (1994) identified the following predictors of job satisfaction: professional challenges, professional autonomy, positive interactions with students and colleagues, tolerable working conditions, opportunities for advancement, and an acceptable salary. Dinham and Scott (2000) found that the greatest source for teacher satisfaction was student achievement. Houffe (2006) explained that low job satisfaction was related to absenteeism, lack of commitment to his/her job, burnout, stress, and turnover.

Factors Affecting Dissatisfaction

Government policies along with the portrayal of teachers in mass media have shaped community attitudes and influenced the teachers’ perception within society. Mitchell and Arnold (2001) expressed that organizational complexity reflected within schools concerning teacher tasks and demands have made teachers feel overwhelmed and unable to cope, therefore, reducing their commitment to teaching.

Dinham and Scott (2000) attributed dissatisfaction to changes in educational policy and procedures, lack of resources, large class sizes, lack of respect from children and society, and poor relationship with superiors. Marston et al. (2004) expressed concern that public school teachers are faced with multiple challenges (e.g., deteriorating facilities, large class sizes, lack of respect from the public, inadequate equipment and supplies, diverse student populations, low salaries, and changing expectations from the administration and parents).

Buckley, Schneider, and Shang (2005) considered school facilities to be an important factor in the decision making process of prospective and veteran teachers concerning taking the job or leaving the job. They reported that schools in the United States were over 40 years old on average, with many of the buildings having the “sick building syndrome.” Students and teachers in these structures exhibited higher rates of absenteeism. Having the ability to control the classroom temperature affected the satisfaction of the teacher and the students. Appropriate lighting allowed students to perform better during class and helped to keep teachers fresh throughout the day. Even daylight shining into the classroom, along with soundproofing of the rooms to remove distractions of “noise pollution,” had a positive effect on both the teacher and the student.

Buckley et al. (2005) discovered teachers to be leaving the profession because of the accountability factor, the standards-based testing, and the necessity to utilize “drill and kill” curricula to meet the testing demand. Unclear expectations, unresponsive education bureaucracies, and confusion over the licensure and certification developed into a frustration for new teachers. With the NCLB, new standards along with the

identification of failing schools and teachers placed an additional strain on the teaching profession and made it difficult to hire and retain teachers.

Teacher Retention

Teacher satisfaction has been proven to be a forecaster of teacher retention, a factor in teacher commitment, and a contributor to school effectiveness (Shann, 1998). Mitchell and Arnold (2004) proposed that, if a school district had a problem with teacher attrition, then it should determine why teachers were leaving and identify ways to help improve retention. Mottet, Beebe, Raffeld, and Medlock (2004) explained that job satisfaction not only affected student achievement and motivation, but also teacher commitment and retention. Berman, McLaughlin, Bass, Pauly, and Zellman (1977) defined teacher self-efficacy as “the extent to which the teacher believes he or she has the capacity to affect student performance” (p. 137), and that teacher self-efficacy was determined as a predictor of student motivation and achievement. Taylor and Tashakkori (1995) found that a positive school climate was related to an increase in job satisfaction of school personnel, administrators, and teachers.

Job Satisfaction and Organizational Health

A number of researchers and educational theorists have delved into the connection between a positive school climate and job satisfaction. Duffy (2004) defined the social architecture of the school as the reward system, communication patterns, organizational design, and culture. If the social architecture of the school were demoralizing, demotivating, and dissatisfying, then the staff would be unable to perform at high levels. Drucker (1997) contended that organizations were the social interactions

of people. Organizations filled certain human needs of security, identity, order, status, power, and self-worth. Hoy and Hannum (1997) stated that students in a healthy middle school felt good about themselves and their teachers. The teachers felt good about the students and believed they could achieve. Teachers and administrators respected each other, and principals were friendly, supportive, and committed to high standards for the students, teachers, and school.

Organizational Health

Organizational health was explored in terms of the current literature on school climate and related research about organizational health and climate. Discussion of findings helped to define school climate and organizational health, to provide a brief look at the theoretical background that led to those definitions, and to suggest possible effects of organizational health on student academic achievement.

School Climate Defined

Hoy, Smith, and Sweetland (2002) suggested that school climate could be represented by the metaphors of personality and health. Miles (1969) was the first to define climate as “healthy” relations within the school. Hoy and Feldman (1987) were the first to conceptualize climate as the organizational health of the school. For many, school climate came to be referred to as the “personality” of the school (Halpin & Croft, 1963; Hoy & Miskel, 2005; Roach & Kratochwill, 2004). It has certainly been defined in a variety of ways such as the following:

1. Shared values, staff social activities, and the shared purpose of the staff (Kottkamp, 1984);
2. General impression of the enduring quality of organizational life and the work environment (Hoy, Tarter, & Kottkamp, 1991);

3. Pervasive quality of a school environment as experienced by students and teachers and which affects the internal behaviors in the school (Hoy & Sabo, 1998);
4. Negative or positive feelings of the students and staff about the school environment (Peterson & Skiba, 2001); and
5. Collective perception of the atmosphere of a school and how it affects attitudes and behavior in the school (Hoy et al., 2002).

Michigan State University (MSU, 2004) explained that school climate reflected how students and staff felt about their school. According to MSU, starting with a caring, orderly, and safe environment for students and staff, the components of the school climate comprised faculty relations, student interactions, appearance of the school, disciplined environment, learning environment, attitude and culture, and the school-community relationship. MSU also related school climate to aspects of the school environment, i.e., the physical environment (how conducive the school is to learning and the welcoming atmosphere of the school), the social environment (the interaction and communication existing between staff members), the affective environment (the self-esteem and belongingness of the teachers), and the academic environment (the self-fulfillment and emphasis on learning within the school). In a broader sense, these reflect the overall health of the school as an organization.

Organizational Health Defined

According to the Organizational Health Diagnostic & Development Corporation (2011), organizational health was dependent upon ten dimensions identified as goal focus, communication adequacy, power equalization, resource equalization, cohesiveness, morale, innovativeness, autonomy, adaptation, and problem solving adequacy. Hoy and Miskel (2005) defined organizational health as “the set of internal

characteristics that distinguish one school from another and influence the behaviors of each school's members" (p. 185). They viewed a healthy organization as one where the managerial, technical, and institutional levels of the school were in harmony.

There were basically four premises that contributed to a healthy school: adequate resources and the ability to adapt to meet the needs of the environment, the ability of the school to identify internal problems and to establish attainable but challenging goals for the student, the ability of the school to maintain close relations within the school, and the ability of the school to preserve the values of the school (Hoy & Miskel, 2005; Hoy & Hannum, 1997; Hoy, Tarter, & Bliss, 1990). Hoy et al. (2002) defined a healthy school climate as one:

Imbued with positive student, teacher, and administrator interrelationships. Teachers like their colleagues, their school, their job, and their students, and they are driven by a quest for academic excellence. They believe in themselves and their students and set high, but achievable goals. Students work hard and respect others who do well academically. Principal behavior is also positive; that is, it is friendly and supportive and has high expectations for teachers and goes out of his/her way to help teachers. Healthy schools have good relationships with the community. (p. 39)

Theories behind Organizational Health

Hoy and his colleagues developed the metaphor organizational health to describe the organizational climate (Goddard, Sweetland, & Hoy, 2000; Henderson et al., 2005; Hoy & Feldman, 1987; Hoy & Hannum, 1997; Sweetland & Hoy, 2000; Tarter & Bliss, 1990). They drew the concept of organizational health from the ideas of Etzioni (1961), Parsons (1967), and Miles (1969).

Etzioni (1961) theorized that organizations had two basic needs—instrumental and expressive needs. Parsons (1967) proposed that for organizations to grow, prosper,

and survive, they must meet the four basic problems of (1) integration—maintaining uniformity and creating solidarity within the school, (2) latency—maintaining a value system, (3) adaptation—acquiring sufficient resources and fitting them to their environment), and (4) goal attainment—setting, implementing, and reaching goals.

Etzioni's two needs could be related to Parson's four needs of organizations: instrumental needs (goal attainment and adaptation) and expressive needs (integration and latency).

Parsons (1967) concluded that organizations had three methods to control the needs of the organizations: technical, managerial, and institutional controls.

According to Henderson et al. (2005), Miles described healthy organizations as having ten properties categorized by task needs (communication systems and decision-making process), maintenance needs (how the organization functioned), and growth needs (changes within the organization). Hoy and Feldman (1987) applied Parson's needs to the school environment, wherein (a) technical level was the teaching and learning functions of the school; (b) managerial level, the administrative functions of the school, and (c) the institutional level, the connection between the school and the community. According to Hoy and Feldman, the cumulative effect of these three levels of control defined the health of the school. These interrelated theories are summarized in Table 1.

Table 1

Theories Used to Create Organizational Health Measures

Etzioni (1961)	Parsons (1967)		Miles (1969)	
Needs	Needs	Controls	Needs	Healthy Properties
Instrumental	Goal Attainment	Managerial	Task	Goal Focus
	Adaptation			Power Equalization
		Technical	Maintenance	Communication
				Integration
Resource Utilization				
Expressive	Latency	Institutional	Growth	Morale
				Adaptation
		Innovativeness		
			Autonomy	

Based on the theories of Parsons, Miles, and Etzioni, Hoy and his colleagues created the Organizational Health Inventory (OHI) instrument as a means to measure the organizational health of an organization. Henderson et al. (2005) illustrated the different levels of control along with seven different subscales that constituted the organizational health of the school. In turn, Sumner (2006) corresponded the OHI-M dimensions with three levels of school health—institutional, teacher, and administrative levels. According to Hoy, Sabo, and Barnes (1996), the OHI-M measured the organizational health of the school on all three levels of the institutional, technical, and managerial scales of Parsons (1967). These levels of control are displayed in Table 2.

Table 2

Levels of Control

Level	Dimension	Description
Technical	Academic Emphasis (AE)	The extent to which the school is driven by a quest for academic excellence. High but achievable academic goals are set for students; the learning environment is orderly and serious; teachers believe in their students' ability to achieve, and students work hard and respect those who do well academically.
	Teacher Affiliation (TA)	A sense of friendliness and strong affiliation with the school. Teachers feel good about each other, their job, and their students. They are committed to both their students and their colleagues and accomplish their jobs with enthusiasm.
Managerial	Collegial Leadership (CL)	Principal behavior that is friendly, supportive, open, and guided by norms of equality. But, at the same time, the principal sets the tone for high performance by letting people know what is expected of them.
	Resource Support (RS)	Refers primarily to the availability of classroom supplies and instructional materials. Sufficient materials are readily available; indeed, extra materials are supplied if requested.
	Principal Influence (PI)	Refers to the principal's ability to influence the actions of superiors, to function unimpeded by bureaucratic structure, and to get additional consideration by superiors.
Institutional	Institutional Integrity (II)	The degree to which the school can cope with its environment in a way that maintains the educational integrity of its programs. Teachers are protected from unreasonable community and parental demands.

Source: Table reproduced from Henderson et al. (2005).

Organizational Health and Student Achievement

Edmonds (1979) was the first to provide evidence (outside of socioeconomic status) that school factors were related to student achievement. He discovered five properties predictive of student achievement: orderly school environment, strong

principal leadership, priority on basic skills, frequent assessment of students, and high expectations for students. Later in fact, Goddard et al. (2000) reinforced the point that schools with high expectations for their students obtained higher student scores on standardized tests. Several researchers found that school climate affected the learning environment of the school as well as the achievement of the students (Bossert, 1988; Brookover, Beady, Flood, Schweitzer, & Wisenbake, 1977, 1979; Fullan & Hargreaves, 1996; Goddard et al.; Henderson et al., 2005; Lindahl, 2009; Schweitzer & Wisenbaker, 1979). Numerous studies documented that students in schools with a better school climate had higher achievement scores (Frieberg, 1998; Henderson et al., 2005; MSU, 2004; Strahan, Carlone, Horn, Dallas, & Ware, 2003).

The OHI has been used fairly frequently to study the possible correlation between organizational health and student achievement (Bevans et al., 2007; Brown, Roney, & Anfara, 2003; Browne, 2002; Goddard et al., 2000; Heck, 2000; Henderson, 2007; Henderson et al., 2005; Hoy & Hannum, 1997; Hoy et al., 1990; Hoy & Sabo, 1998; Podurski, 1990; Smith, 2002; Sumner, 2006; Sweetland & Hoy, 2000; Valente, 1999; Zigarmi, Edeburn, & Blanchard, 1991). Evidence of a positive correlation between organizational health and academic achievement resulted in an appreciable number of those studies (Birdin, 1992; Bulach, Malone, & Castleman, 1995; Brown et al.; Browne; Goddard et al.; Green, 2000; Henderson, 2007; Henderson et al., Hill, 2003; Hoy & Hannum; Hoy et al.; Smith; Lindahl, 2009; Valente; Zigarm et al., 1991).

Findings indicated that academic emphasis, resource support, and teacher affiliation had a positive correlation with student achievement, and institutional integrity

correlated negatively with student achievement. Initially, the negative correlation proved troublesome for Hoy and his colleagues. However, they concluded that schools with higher achievement scores had more parental involvement which tended to threaten the school's institutional integrity. This helped to explain the negative correlation.

Sumner (2006) studied the relationship between school climate as measured by the School Climate Inventory (SCI) and student performance. In this study, Sumner confirmed that a relationship existed between academic emphasis and student achievement. Hoyle, English, and Steffy (1985) stated, "School achievement may be one of the most important ingredients of a successful instructional program. Without a climate that creates a harmonious and well functioning school, a high degree of academic achievement is difficult, if not downright impossible to obtain" (p. 15).

Henderson et al. (2005) found that schools that maintained high expectations for students realized higher achievement scores on standardized tests, and schools with higher achievement scores had higher organizational health index scores. Further, the school with the highest academic achievement and the highest organizational health index score also scored the highest on the sub-scales of teacher affiliation, academic emphasis, and resource support; the school with the lowest achievement and overall health index score had the lowest scores on teacher affiliation and resource support. With these findings supported by the qualitative analysis of interviews conducted by the researchers, school academic emphasis was directly associated with the academic performance of the student.

According to Goddard et al. (2000), researchers consistently related student achievement with academic emphasis, a factor of organizational health wherein administrators, teachers, and students all placed an importance on academics. Goddard summed up the connection between Hoy and his colleagues and Edmonds (1979) as “teachers set high but achievable goals; they believe in the capability of their students to achieve; the school environment is orderly and serious; and students, as well as teachers and principals, pursue and respect academic success” (p. 686). Several other researchers found a strong correlation between teacher affiliation, resource support, and academic emphasis which positively correlated with student achievement (Browne, 2002; Hoy & Hannum, 1997; Hoy et al., 2002; Valente, 1999).

Sweeney (1988) stated, “A winning climate provides the very foundation for a sound educational program. When the climate is right, people are inspired to do their best” (p. 1). Based on this perspective, students and teachers would do everything possible to stimulate learning, and this would result in an increase in student achievement. According to Sumner (2006), “teachers within a healthy school maintain a high academic emphasis by holding their students to high standards and setting high but obtainable goals for their students” (23). Goddard et al. (2000) defined academic emphasis as a “school atmosphere in which teachers set reasonable goals and believe in their students’ abilities to achieve, students work hard to succeed and respect those who do the same, and the learning environment is orderly and serious” (p. 698). They saw academic emphasis in school climate as fostering academic success, postulating that

...if academic emphasis enhances organizational performance, reciprocal causality suggests that resulting performance improvements may in turn

strengthen academic emphasis in the school. Thus, to the extent that a strong academic emphasis is positively associated with student achievement, there is important reason to lead schools in a direction that will systematically develop more emphasis on academics. (p. 687)

Academic emphasis has been positively related to student achievement in the following studies: Hoy and Sabo (1998); Hoy, Tarter, and Bliss (1990); and Hoy, Tarter, and Kottkamp (1991). Goddard et al. (2000) found that academic emphasis was a significant predictor of student achievement, helping to explain both reading (47.4%) and mathematics (50.4%) variance between schools. Schools with historically poor achievement tended to have poorer images of school climate, which in turn led to a poor perception of teacher effectiveness, resulting in a poor performance of students (Moore and Essleman, 1994). Hoy et al. (1996) detected a positive relationship between the OHI-M index and reading scores as well as between academic emphasis and reading scores.

Two studies did not show a significant positive relationship between achievement and climate (Culpepper, 1993; Montoya & Brown, 1990). Culpepper found no significant relationship between climate and achievement in math and reading. Montoya and Brown concluded that no linear relationship existed between student perception of school climate and academic achievement. Lindahl (2009) found profound differences in organizational climate and health between high and low performing schools in high poverty areas. The largest difference in school climate appeared to be working in a safe school environment and working in a clean and maintained school. High performing schools in these areas shared the following characteristics:

1. School supported an atmosphere of trust and mutual respect;
2. School leadership supported faculty to reach high performance standards;

3. School leaders hired the best available teachers to teach within their schools;
4. School colleagues viewed each other as committed to the education of their student; and
5. School teachers rated effectiveness of school leadership much higher (63%) versus 39% in low performing schools.

Williams, Persuad, and Turner (2008) conducted a research study on the relationships among leadership, school climate, and student achievement. They identified a positive relationship between school climate and student achievement, an inverse relationship between high climate and low performing students, and no significant relationship between climate and average performing students, but a positive relationship between climate and high performing students. In essence, the higher the climate, the better students performed and/or achieved on student assessments. Bevans et al. (2007) postulated that student enrollment, faculty turnover, student mobility, and number of students on free/reduced lunches would pose challenges to the organizational health of the school. In addition, they believed that positive organizational health would be reflected in student performance and that staff from underrepresented populations would report lower levels of organizational health.

Limited research has been conducted on the relationship between organizational health and value-added scores; somewhat more attention has turned to the relationship between organizational health and accountability as in studies conducted by Henderson et al. (2005) and Henderson (2007). In 2007, Henderson reported an inverse relationship between value-added scores and overall organizational health. This finding contradicted conventional thinking (i.e., higher test scores logically corresponded with higher organizational health index scores) and strongly influenced the direction of this study. By

following Henderson's recommendation, this study expanded the population sample to include middle schools across Tennessee and explored the relationship between value-added scores and organizational health in greater depth. Furthermore, surveying middle school teachers about accountability and job satisfaction would likely provide more insight into pressures placed on teachers in the current realm of accountability in schools.

Theoretical Framework

Under the current educational climate, state and federal governments have demanded more from schools through mandates. More mandates have increased the stress for teachers and their respective schools. Theoretically, these accountability mandates might influence teachers' job satisfaction as well as the organizational health of the schools involved, thereby linking the research on job satisfaction with the research on organizational health and serving as the theoretical framework for this study. The nature and significance of this framework will be discussed in this section.

Job Satisfaction

Maslow (1954, 1962) envisioned satisfaction as a hierarchy of needs ascending within levels of a triangle. At the base of the triangle were physiological needs such as food, water, clothing, shelter, and sex. The second level represented physical needs and the desire for security; the third level, the social needs of love, belonging, and acceptance; the fourth level, the need for self-esteem and peer recognition. The highest level of the triangle represented the concept of self-actualization where self-development, self-direction, and autonomy existed. Application of Maslow's hierarchy to teachers indicated their need for acceptance and recognition in order to feel a belonging to a

specific group, and this belonging became the fundamental basis for their need for self-actualization.

Intrinsic and extrinsic factors affect degrees of satisfaction. Hoppock (1935) identified the presence of certain variables that led to satisfaction while their absence led to dissatisfaction; this implied one common continuum. The Hygiene Motivation Theory (Herzberg, Mausner, & Snyderman, 1959) refuted the concept of a single continuum between satisfaction and dissatisfaction and suggested the addition of psychological growth as incremental to job satisfaction. Intrinsic in nature, psychological growth promoted pleasant feelings derived from doing the work itself, i.e., satisfaction. Dissatisfaction resulted from extrinsic variables that focused on the environment—the external factors surrounding the work.

Herzberg et al. (1959) also developed the Two-Factor Theory involving motivation factors and hygiene factors. Satisfaction and psychological growth affected *motivation factors*; dissatisfaction, *hygiene factors*. In other words, motivation or “intrinsic” factors (e.g., growth, achievement, recognition of achievement, interest in job, advancement to higher-level tasks, and responsibility for tasks) were essential to the motivation of an employee to a higher level of performance. On the other hand, hygiene or “maintenance” factors (e.g., salary, status, security, company, working conditions, quality of supervision, job, company policies and administration, and interpersonal relations) helped to prevent an employee from becoming dissatisfied, but did not lead to higher levels of motivation. Table 3 identifies several scenarios with high/low levels of hygiene and motivation factors.

Table 3

Hygiene and Motivation Scenarios

Hygiene	Motivation	Scenarios
High	High	Employees highly motivated with few complaints.
High	Low	Employees have few complaints, but are not highly motivated. Job perceived as a means to a paycheck.
Low	High	Employees highly motivated, but have a lot of complaints. Job exciting and meaningful, but working conditions and salaries are under par.
Low	Low	Unmotivated employees with lots of complaints.

Hackman and Oldham (1980) proposed that three critical psychological states made work more satisfying: Employees (1) experienced meaningfulness at work, (2) shared in responsibility and accountability, and (3) had knowledge of and effectiveness in results. Meaningfulness at work was reflected in the degree to which work tasks were perceived as meaningful and worth doing by the employee. Therefore, workers who perceived they were performing meaningful tasks tended to be more satisfied than workers who were performing routine tasks. In the second psychological state, responsibility for outcomes “captures the degree to which employees feel that they are key drivers of the quality of the unit’s work” (Colquitt, LePine, & Wesson, 2009, p. 60) as opposed to how much they might not believe that their work mattered because efficient technologies, effective procedures, and influential colleagues dictated work outcomes. The third psychological state was viewed as the employees’ knowledge of results reflecting how well they were doing their job (Hackman & Oldham). Unfortunately,

some employees were never informed about their performance—neither their accomplishments nor their mistakes (Colquitt et al.).

Naturally, the next question then became, “What kind of tasks fostered attainment of these psychological states and greater job satisfaction?” Hackman and Oldham (1980) identified the following core characteristics which helped to make tasks more satisfying:

1. Skill variety, the number of different skills necessary for a specific job;
2. Task identity, the division of labor that existed within the organization (i.e., did the employee perform the entire job or part of the job?);
3. Task significance, the level of significance or impact related to the accomplishment of the job;
4. Autonomy, the freedom to make decisions while working on the job, and
5. Job feedback, the degree to which employees realized they were doing a good job.

When a job encompassed these core characteristics effectively, employees tended to experience more meaningfulness and value in the workplace, a greater sense of responsibility and accountability, and a known role in the results achieved—all incremental to the critical psychological states conducive to job satisfaction. From another standpoint, Parsons (1967) suggested that school control of activities existed over three levels: (1) institutional level connecting the school and its environment; (2) technical level defining delivery of instruction, teaching, and learning; (3) managerial level involving coordination and motivation of the school to administer the technical level of activities. Healthy schools existed when all levels worked in harmony.

The Job Characteristic Model (Figure 1) was devised by Hackman and Oldham (1980) and affirmed by Montgomery (1988) through findings on the positive relationship

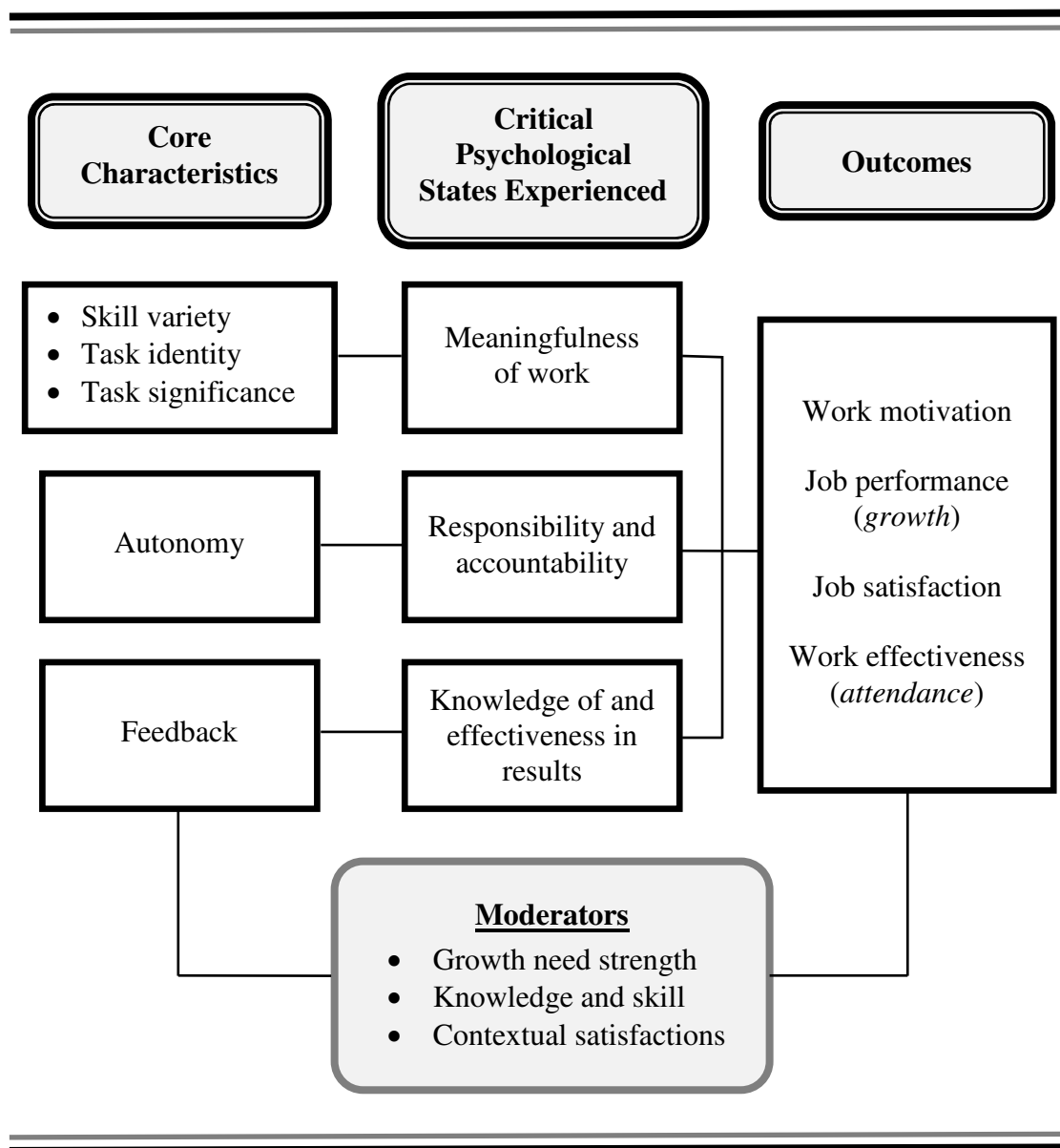


Figure 1. Job characteristic model.

between job satisfaction and the model's job characteristics. Besides clearly demonstrating the relationship between intrinsic rewards and satisfaction, this model served as the best determinant of satisfaction for individuals in the teaching profession who relied so heavily on intrinsic rewards as a motivation for positive job satisfaction.

At the heart of the theoretical framework was the idea that, when a school concentrated on academic emphasis, both the staff and students would have a high expectation for student achievement. This in turn would result in an increase in student performance. Goddard et al. (2000) applied social cognitive theory to explain a faculty's collective perception of effectiveness and its contribution to the academic emphasis of the school. The overall perspective became a principle of the organization, i.e., the school, including all of its stakeholders, valued student achievement and worked to strengthen the perception of all members on the importance of student academic success. Combs (1982) proposed that, before students could become successful learners, they had to also reach a state of belonging in a caring school environment. The organizational health of the school would serve as a barometer of that school environment.

Organizational Health

Hoy and Miskel (1996) defined organizational health as characteristics of the school and the behavior of its members that distinguished the school from others. Hoy and Hannum (1997) added that healthy schools “successfully adapt to their environments, achieve their goals, and infuse common values and solidarity into the teacher work group” (p. 293). However, under the current pressures of the accountability movement, these traditional values of teaching students became quickly transformed into student achievement and aroused concern over suspected effect to teacher job satisfaction.

Woods and Weasmer (2008) provided a theoretical explanation connecting satisfaction with climate and student achievement explaining that “teacher satisfaction reduces attrition, enhances collegiality, improves job performance, and has an impact on

student outcomes” (p. 118). Social cognitive theory suggested that perceptions of the school environment affected the behaviors of the school positively or negatively. If teachers perceived the school to be organizationally healthy, then they possessed a greater sense of commitment to the school. This commitment increased their job performance and quality of educational services provided to the students. In return, the students benefited from this healthy environment as reflected in their academic achievement (Bevans et al., 2007).

Summary of Chapter 2

This chapter began with a historical overview of the movement toward educational reform nationwide as we have come to experience it today. It described key events that led up to the passage of the ESEA in 1958, an act designed to improve educational opportunities for economically disadvantaged children, and in 1969, the implementation of the NAEP to monitor the achievement of students in the areas of mathematics, science, reading, language arts, and social studies. Much later, with the publication of *A Nation at Risk: The Imperative for Educational Reform*, there ensued great attention on a weak curriculum, low expectations for students, inadequate time devoted to education, and teacher quality issues in public schools. At this point, *A Nation at Risk* represented the driving force that spawned the standards and accountability movement and prompted politicians to increase efforts to raise the bar requiring tougher standards in education.

Today, the educational system is polarized by the passage of NCLB, requiring that all students become proficient in the subjects of math and language arts by 2014, as

measured by the Tennessee Comprehensive Assessment Program (TCAP). From the TCAP, student success or failure is reported using student achievement scores; Average Yearly Progress (AYP) is determined by the number of students reaching academic proficiency; and value-added (TVAAS) scores are used to determine the effectiveness of the teacher, school, and district. For many educators and researchers, these developments have increased the emphasis placed on test scores and fueled the belief that high-stakes testing has often led to teaching the test and narrowing the curriculum. With the increased concerns about the accuracy and validity of reporting student proficiency levels in Tennessee, Governor Bredesen and the State Board of Education launched the Tennessee Diploma Project (TDP) which changed high school graduation requirements, aligned the TCAP with the NAEP test, and developed a new set of standards for middle and high school students.

Additionally, Tennessee was one of the first two states to receive Race to the Top (RTT) funding from the federal government that resulted in more rigorous academic and achievement standards. The state was granted the RTT partly because of its Tennessee Value-Added Assessment System (TVAAS) maintained by the SAS Institute – the data collection system initiated by Dr. William Sanders who created the statistical multivariate analysis involved in the computation of TVAAS scores. With RTT funding, increased academic and achievement standards, and value-added statistical analysis, Tennessee has now asked for a waiver of NCLB requirements in its desire to replace AYP standards with the state's own accountability system revolving around value-added scores.

With time running out for states on reaching the NCLB deadline, many researchers have been exploring factors that may affect the learning environment of the school and student achievement. Research on school organizational health has served to verify its positive effect on student achievement. Some research has supported that a positive relationship exists between job satisfaction and student achievement. Research on organizational health and job satisfaction compared with value-added scores is sparse; however, one study demonstrated that an inverse relationship existed between organizational health and value-added scores. Though findings have indicated the existence of such effects, this question remains: “Have the *mandates* placed on education affected the organizational health of the school and teacher job satisfaction?” The next chapter examines the relationships that may exist between organizational health, job satisfaction, and the effect of school accountability on job satisfaction and the organizational health of the school.

CHAPTER 3

METHODOLOGY

This chapter describes the methods and procedures utilized to examine the relationships between teacher job satisfaction and teachers' perceptions of the organizational health of the school. It also explores the differences among job satisfaction, organizational health, and school accountability as measured by both academic achievement and value-added scores for students, based on dimensions of organizational health and the facets of the job satisfaction survey. Demographic data were collected to determine if any differences existed between demographic data, job satisfaction, and the organizational health of the school. Further, this chapter explains the procedural details of the overall conduct of this research, the selection of the population, the sampling frame, the sample and procedures, the instrumentation along with its validation study and procedures, the data collection methods, and strategies used for data analyses.

Study Design

A quantitative methodology was used to conduct this study. Gay et al. (2009) explained that survey research "can be used to gather information about a group's beliefs, attitudes, behaviors, and demographic composition" (p. 176), an approach that aligned well with the research questions addressed. An overview of the research design is depicted in Figure 2. The components are explained in the subsequent sections.

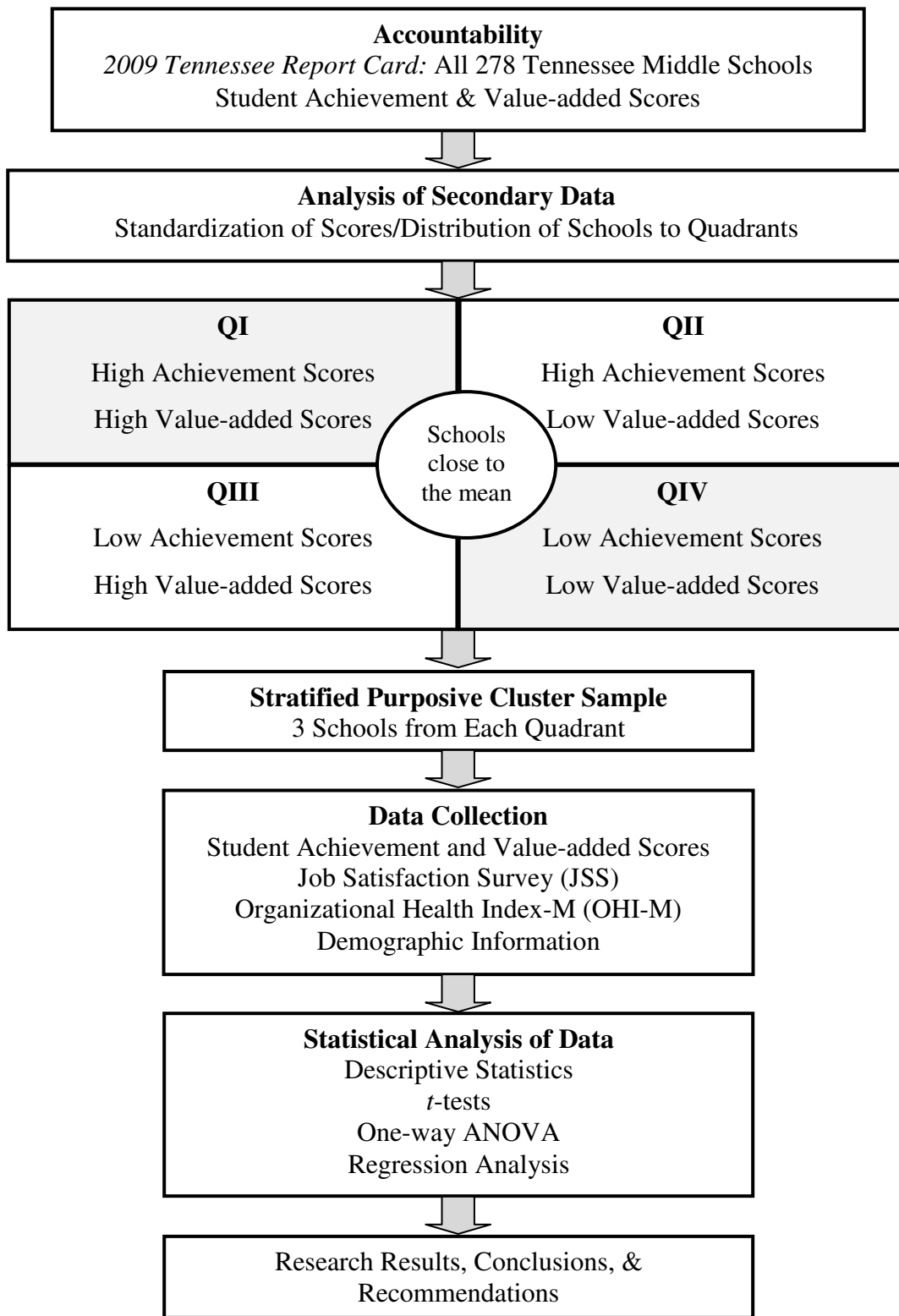


Figure 2. Research design.

Population and Sample

To increase the likelihood of generalizations across the state and to the statewide middle school population, all 278 Tennessee public middle schools comprised the population for this study. A Tennessee middle school was defined as any school that included the 6th through 8th grades. All teachers from these middle schools served as possible participants for this study.

Sampling Frame

To determine the sampling frame, secondary data were collected from the *Tennessee Report Card* (2010). First, each public school system was searched manually for all middle schools. Demographic information (e.g., number of students, number of students by ethnicity, and number of students having an economically disadvantaged status) was input to an Excel spreadsheet for each middle school identified. Student achievement and value-added scores for 2009-2010 in math, language arts, and science were recorded for each school, and a mean composite score for each of the schools was calculated. The mean composite scores were standardized into z scores.

According to Gay et al. (2009), “a z score is the most basic standard score; it expresses how far a score is from the mean in terms of standard deviation units” (p. 314). The formula to calculate the z score was the raw score minus the mean score divided by the standard deviation. The value of the mean was 0; all others represented a positive or negative deviation from the mean. Sumner (2006) created an effectiveness cube representing the different levels of school achievement and value-added scores. Sumner utilized this cube to divide schools into four different quadrants. Quadrant I (QI)

comprised high-achieving/high performance schools; QII, high-achieving/low performance; QIII, low-achieving/high performance, and QIV, low-achieving/low performance. For this study, the z scores were used to place each of the schools into one of the four quadrants, with the quadrants becoming the strata and the schools inside each of the quadrants becoming the clusters. SCORE (2009) employed a similar strategy using achievement scores and gains to determine the districts with the most progress to use in its study of the relationship between teachers and achievement outcomes.

Based on this same approach, the researcher created the “accountability matrix.” To determine the school placement within this matrix, the researcher calculated z scores from composite student achievement and value-added scores for each school. The quadrants representing the accountability matrix are displayed in Figure 3.

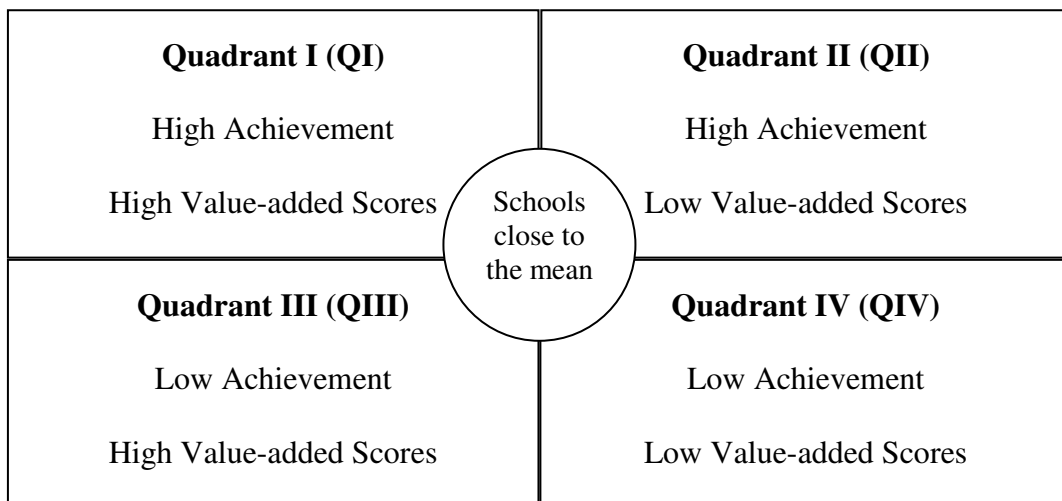


Figure 3. Accountability matrix.

The achievement z scores ranged from -2.42 to 2.84. The range of the value-added z scores was -2.82 to 3.40. The Figure 4 scatter plot of the data illustrates that the majority of schools fell close to the mean. The value-added data were sorted (ascending and descending) to rank the z scores for each of the schools to determine the stratified sample for each of the quadrants. Then the achievement data were sorted (ascending and descending) to rank the z scores for each of the schools to determine the stratified sample for each of the quadrants. The teachers from each of the schools in each of the respective quadrants became the clusters for this study.

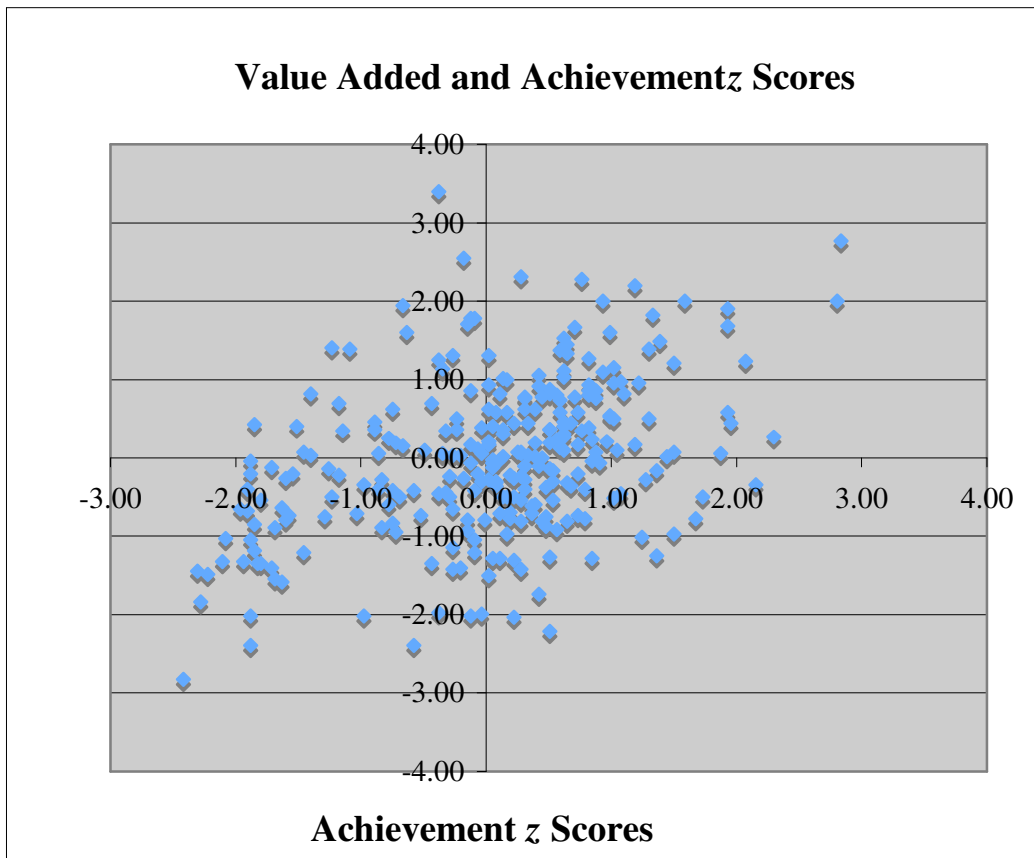


Figure 4. Scatterplot of z scores.

Purposive Sample

As shown in Table 4, a purposive sample of schools was selected for each quadrant after ranking all of the schools. The outlier schools, any school with a z score above 2 or below -2 in both value-added and achievement scores, were excluded from consideration for this research. The schools with z scores closest to 2 or -2 in value-added and achievement scores were considered for each quadrant. However, Meigs Middle Magnet, Eagleton Middle, Meadowview, and South Doyle Schools were all included because of the presence of other schools from the school district in the sample. Northwest and Fort Loudoun middle schools were selected because Quadrant III lacked a sufficient number of schools close to over 1 or -1 in that specific quadrant. Those schools formed the cluster samples, and the teachers from each of the schools served as the potential participants for the sample.

Instrumentation

When discussing job satisfaction instruments, Spector (1997) explained the advantages of using a pre-existing instrument – the coverage of the major facets of job satisfaction, established norms, acceptable levels of validity, good evidence for construct validity, and considerable savings of time and money. Some possible disadvantages might be the limitation of the research to the facets and often generic nature of the questions included in the instrument as well as the cost of using a published instrument. The researcher considered these principles applicable to measures of other constructs and undertook a thorough search to identify instruments to measure job satisfaction, organizational health, and the effect of the accountability movement on education.

Table 4

Schools by Quadrant Selected for the Purposive Sample

Quadrant	School Name	Achievement z scores	Value-added z scores
QI High achievement & High value-added scores	Alcoa Middle School	1.07	.98
	Heritage Middle School	1.50	1.21
	Farragut Middle School	1.93	1.90
	West Valley Middle School	1.93	1.69
	White Station Middle School	1.59	2.00
	Carpenters Middle School	.62	1.11
	West View Middle School	.93	2.00
	Fairview Middle School	1.33	1.82
	Karns Middle School	1.02	1.15
	Siegel Middle School	1.39	1.49
QII High achievement & Low value-added scores	Schilling Farms Middle School	1.73	-.50
	Freedom Middle School	1.36	-.17
	Sunset Middle School	1.50	-.97
	Maryville Middle School	1.67	-.78
	Colonial Heights Middle School	1.24	-1.01
	Elmore Park Middle School	.85	-1.29
	Fred J. Page Middle School	1.36	-1.25
	Loftis Middle School	1.07	-.46
	T.A. Dugger Junior High School	1.02	-.52
	Boones Creek Middle School	.51	-1.27
QIII Low achievement & High value-added scores	H.G. Hill Middle School	-.63	1.61
	Humboldt Middle School	-.66	1.94
	Ida B. Wells Academy	-1.09	1.39
	Northwest Middle School	-.72	.19
	Kingsbury Middle School	-1.17	.62
	Soldiers Memorial Middle School	-.12	1.78
	McMurray Middle School	-1.23	1.41
	Fort Loudoun Middle School	-.43	.70
	Bellevue Middle School	-.15	1.70
	Cameron Middle School	-1.40	.82
QIV Low achievement & Low value-added scores	Joelton Middle School	-1.45	-1.21
	Wooddale Middle School	-1.63	-1.58
	Brick Church Middle School	-1.68	-1.54
	Kirby Middle School	-1.71	-1.41
	Lanier Middle School	-1.82	-1.35
	South Side Middle School	-1.85	-1.19
	Eagleton Middle School	-.57	-.42
	Gar-Mar Middle School	-1.88	-1.05
	Meadowview Middle School	-.74	-.85
	Vine Middle Magnet School	-1.60	-.26

A number of instruments related to job satisfaction and organizational health were identified. After careful study of their purpose, format and content, usage to date, and published norms, the number was reduced to the eight most viable candidates for this study. These are displayed in Table 5.

The next sections describe the existing job satisfaction and organizational health instruments reviewed and further details regarding the instruments selected, followed by brief descriptions of the two instruments developed particularly for this study.

Table 5

Instruments Considered for Use in the Study

Type	Name	Source
Job Satisfaction Instruments	Job Descriptive Index (JDI)	Smith, Kendall, & Hulin (1969)
	Job Diagnostic Survey (JDS)	Hackman & Oldham (1980)
	Job Satisfaction Survey (JSS)	Spector (1997)
	Minnesota Satisfaction Questionnaire (MSQ)	Weis, Dawis, English, & Lofquist (1967)
	Teacher Job Satisfaction Questionnaire (TJSQ)	Lester (1987)
Organizational Health Instruments	Organizational Climate Description Questionnaire (OCDQ)	Hoy & Sabo, (1998)
	Organizational Health Inventory-Middle Schools (OHI-M)	Hoy (2003; Hoy & Sabo, 1998)
	School Climate Inventory (SCI)	Sumner (2006)

Review of Existing Instruments

Job Satisfaction Instruments

The review of the literature yielded substantive background and current thought on job satisfaction, with a considerable number of instruments on job satisfaction in a variety of work environments, but not in educational institutions, per se. Because of this lack of teacher-specific instruments, the researcher examined the more generic instruments and identified five that appeared most amenable to the purposes of this study.

These are described as follows:

1. Job Descriptive Index (JDI, Smith, Kendall, & Hulin, 1969). Instrument developed to measure five job facets: work, pay, promotion, supervision, and coworkers.
2. Job Diagnostic Survey (JDS, Hackman & Oldham, 1980). Instrument developed to help in the study of the effects of job characteristics on people. This instrument measures growth, pay, security, social, supervisor, and general facets—the five core characteristics of Hackman and Oldham’s Job Characteristic Theory.
3. Job Satisfaction Survey (JSS, Spector, 1997). Instrument developed to determine the satisfaction level of employees within an organization. Spector initially identified 14 facets of job satisfaction, later narrowed these to the nine facets in the current version, and posed four facet-specific questions for each of the nine facets, respectively. The 36 questions are listed on one page, facilitating administration of the survey.
4. Minnesota Satisfaction Questionnaire (MSQ; Weis, Dawis, English, & Lofquist, 1967). Instrument developed to measure 20 facets of job satisfaction. The MSQ is available in a 100-question format (5 questions per facet) or in a 20-question format (one question per facet).
5. Teacher Job Satisfaction Questionnaire (TJSQ, Lester, 1987). Instrument developed in direct relationship to the teaching profession. With its focus on teacher job satisfaction, the TJSQ merited considerable consideration; however, its limited past usage and lack of validity and reliability data discouraged its selection.

Careful, in-depth review of each of these instruments brought the JSS to the fore. The researcher considered many aspects of this particular instrument in the selection process, including background, advantages and disadvantages norms, and other statistical validations. This focused scrutiny began from the JSS originator's perspective.

Spector (1997) developed the JSS to measure the satisfaction level of employees within an organization—any type of organization, including those such as educational institutions in the public sector. When looking only at jobs in the public sector, Spector (2008) reflected that the total job satisfaction was lower (133.9) than the American total (136.0). The job facets of pay, promotion, benefits, rewards, conditions, and communication were all lower on the public sector norms while the job facets of supervision and coworkers were higher. In addition, the nature of work mean score for the American total was equal to that for public sector norms.

This perspective put a more meaningful slant on JSS scores in terms of traditional educators as typical members of the public sector and helped support the choice of this instrument. However, disadvantages to using the JSS were also weighed.

It was understood that the generic nature of this instrument might prove confusing to participating teachers. For example, the term “supervisor” used in all questions measuring supervision may not necessarily imply “principal” for some teachers. This aspect would require the researcher to overtly define the “supervisor” role to the “principal” role within the school, thereby providing clarity to the participants and better results in determining the level of job satisfaction under the “supervisor” job facet of satisfaction in schools.

Although the survey included the job facets of Operating Conditions and Nature of Work, it failed to identify job-specific stressors that might create an environment leading to job dissatisfaction in a particular career. Once again, in education, a teacher might be dissatisfied with his/her job as a result of the environment of the school and/or the discipline of the students. In addition, the survey did not reflect outside influences potentially impacting the school, e.g., the accountability movement within education.

The JSS was used in several studies that supported ample statistical analyses. These served to establish the following norms:

1. Published mean score (136) based on 116 samples totaling 30,382 participants representing all types of job classifications;
2. Weighted mean (132);
3. Standard deviation (12.1);
4. Coefficient alpha (.91) based on a sample of 2,780 participants, with results that showed how well items related to one another (minimum standard for internal consistency equal to .70), and
5. Test-retest reliability (.71) reflecting the stability of the scale over an 18-month period of time.

Statistical relationships were highly scrutinized in testing the JSS. Spector (1997) determined through the inter-correlation table of total-to-subscale and subscale-to-subscale that the JSS did measure distinct facets of job satisfaction because of the small to moderate correlations between the different subscales. The correlations ranged from .10 to .59 with a median correlation of .35. Bergstrom and Lunz (1998) conducted the same inter-correlation test on JSS data and found a range of correlations from .06 to .53 with a median of .28. “Thus it might be concluded that the subscales are measuring distinct facets of job satisfaction for this population” (p. 3). Bergstorm and Lunz also

conducted a Rasch rating scale analysis that determined the mean item difficulties range from -1.05 logits (Nature of Work) to 1.31 logits (Promotion). This indicated that some items were easier than others. In addition, the mean personal satisfaction measured range was .01 logits (Promotion) to .25 (Supervisor). The reliability subset measure ranged from .47 (Conditions) to .71 (Supervisor). In the end, Bergstorm and Lunz concluded that the Rasch rating scale analysis revealed that the four item subtests could not reliably differentiate between survey respondents.

In another report, Bergstrom and Lunz (1998b) analyzed the 36-item instrument that used both negatively and positively scored Likert items for any discrepancies concerning the four questions for each job facet measured. They used the Andrich Rating Scale Model to conduct an Item Response Theory (IRT) analysis of the survey instrument. This model “estimates the probability that a survey respondent will respond to a particular item with a particular response category” (p. 3). They analyzed the respondent measures, standard errors of measure, and item difficulty within their analysis. The step measures were determined for positively worded items from strongly disagree to strongly agree (-1.88, -.49, to 2.37 logits) which are similar to the negatively worded items (-1.67, -4.7, to 2.15 logits). They concluded that the average measures “show a very similar pattern between positive scale and negative scale,” with Thurston thresholds demonstrating a “similar pattern between the positive and negative scale” (p. 4). In addition, they found that the correlation between positively and negatively worded items was .77, and the reliability for the positively scaled items was the same as all items scaled together at .87.

In summary, the statistical analysis of the JSS indicated a moderately high reliability, even though inter-correlations between four subscales were relatively low. Spector conducted a test-retest of the instrument, and independent researchers concluded that no significant difference existed between the negatively and positively worded survey items on the test. The JSS appeared adequate in reliability to be applied to a school environment.

Organizational Climate and Health Instruments

Roach and Kratochwill (2004) explained that survey instruments were mainly used to measure school climate; they identified three such instruments that could be employed as a means to measure school climate: Comprehensive Assessment of School Environments (CASE), Organizational Health Index (OHI), and School Climate Inventory (SCI). The researcher focused on two of these plus the Organizational Climate Descriptive Questionnaire (OCDQ), each described as follows:

1. Organizational Climate Descriptive Questionnaire (OCDQ; Hoy & Sabo, 1998; Hoy et al, 1991). Instrument developed to measure the school climate of elementary schools along the continuum from open to closed schools.
2. Organizational Health Index-Middle Schools (OHI-M; Hoy, 2003, Hoy & Sabo, 1998; Hoy, et al, 1991). Instrument developed based on existing OHI instrumentation and geared specifically to middle school application.
3. School Climate Inventory (SCI, Sumner, 2006). Instrument developed in the study of the relationship between school climate and student performance.

Prior use of these instruments quickly became a primary discriminator, and review of the background on the OHI strengthened its position as one of the best available instruments for this study. The OHI has been utilized in relation to the following education-oriented studies:

1. Low- and high-performing middle schools (Brown et al., 2003);
2. Teacher empowerment and organizational health (Sweetland & Hoy, 2000);
3. Strength of schools in relation to organizational health (Licta & Harper, 1999);
4. Effect of organizational health on teacher efficacy (Hoy & Woolfolk, 1993); and.
5. Favorable student- and staff-level predictors and the staff's perceived organizational health of the school (Bevans et al., 2007).

Roach and Kratochwill (2004) identified the following advantages of the OHI instrument:

(a) efficient administration with its 10-minute completion time, (b) adequate validity and reliability, (c) relevance to school effectiveness based on current usage, and (d) separate measures for high, middle, and elementary school. They identified one weakness: it only surveys teachers and administrators.

After consideration of all factors, the JSS and OHI-M were selected because of their online capabilities, validity, and reliability; both instruments were available at no cost to the researcher. The researcher determined that the depth and breadth of facets and dimensions explored by these instruments provided the opportunity to gain a reasonably comprehensive picture of the job satisfaction of middle school teachers and organizational climate and health of middle schools across Tennessee. The next section discusses the three instruments that were selected or specifically developed for this study: the JSS, OHI-M, and demographic survey.

Description of Selected Published Instruments and Instruments

Developed for This Study

Job Satisfaction Survey (JSS)

The JSS (Appendix A) comprised nine facets of job satisfaction, each measured with four different questions (as shown in Table 6). Questions were worded positively (19 times) and negatively (17 times) to reduce patterned response tendencies. Response choices were presented in a 6-point Likert scale: 1 = *disagree very much*, 2 = *disagree moderately*, 3 = *disagree slightly*, 4 = *agree slightly*, 5 = *agree moderately*, and 6 = *agree very much*. The sum of all 36 items represented the total job satisfaction for the school.

Table 6

Job Satisfaction Survey (JSS) Facets and Item Numbers

Facet	Item Number
Pay	1, 10, 19, 28
Promotion	2, 11, 20, 33
Supervision	3, 12, 21, 30
Fringe Benefits	4, 13, 22, 29
Contingent Rewards	5, 14, 23, 32
Operating Conditions	6, 15, 24, 31
Coworkers	7, 16, 25, 34
Nature of Work	8, 17, 27, 35
Communication	9, 18, 26, 36
Total Job Satisfaction:	1 - 36

Source: Spector (1997)

Organizational Health Inventory-Middle (OHI-M)

Hoy and his colleagues initiated development of the OHI-M in 1991 after conducting pilot studies in elementary, high, and middle schools. The current version in use (Appendix B) was copyrighted in 2003 (Hoy, 2003; Hoy & Sabo, 1998). The OHI-M contains 44 items with response choices based on a four-point Likert scale: 1 = *very frequently occurs*, 2 = *often occurs*, 3 = *sometimes occurs*, and 4 = *rarely occurs*. It is designed to measure six dimensions of organizational health: Institutional Integrity (II), Collegial Leadership (CL), Principal Influence (PI), Resource Support (RS), Teacher Affiliation (TA), and Academic Emphasis (AE). Participants respond to different items for each of the dimensions as shown in Table 7.

Table 7

Organizational Health Inventory-Middle (OHI-M) Dimensions and Item Numbers

Dimension	Item Number
Institutional Integrity (II)	8+13+18+23+25+26+33
Collegial Leadership (CL)	1+4+5+10+14+24+30+35+39
Principal Influence (PI)	3+9+19+34+41+43
Resource Support (RS)	6+11+15+20+36+40
Teacher Affiliation (TA)	12+21+28+31+32+37+42+45
Academic Emphasis (AE)	2+7+16+17+22+27+29+38+44

Most items are positively scored; items 7, 8, 13, 18, 23, 25, 26, 32, 37, 41, and 44 are reverse-scored. A mean score was calculated for each of the dimensions, and a total mean score was used to calculate the organizational health index of the school. The six scores for each of the dimensions represented a health profile of the school. For comparison purposes with standardized mean scores for each school under study, Hoy and Sabo (1998) provided mean scores and standard deviations for each health dimension (Table 8) from a diverse sample of schools in New Jersey.

Standardized scores (SdS) were calculated by subtracting the dimension mean score for the school from the normative sample mean score, multiplying the difference by 100, dividing that result by the standard deviation, and then adding 500. This

Table 8

Sample Means and Standard Deviations by OHI-M Dimensions

Dimension	Mean (M)	Standard Deviation (SD)
Institutional Integrity (II)	16.41	2.82
Collegial Leadership (CL)	26.61	3.71
Principal Influence (PI)	16.37	2.12
Resource Support (RS)	16.72	2.63
Teacher Affiliation (TA)	28.34	2.57
Academic Emphasis (AE)	20.11	2.80

computation complied with its corresponding equation for the II dimension and was repeated for each of the other five dimensions utilizing the following equations, respectively:

- $\text{SdS for II} = [100(\text{II} - 16.41) / 2.82] + 500$
- $\text{SdS for CL} = [100(\text{CL} - 26.61) / 3.71] + 500$
- $\text{SdS for PI} = [100(\text{PI} - 16.37) / 2.12] + 500$
- $\text{SdS for RS} = [100(\text{RS} - 16.72) / 2.63] + 500$
- $\text{SdS for TA} = [100(\text{TA} - 28.34) / 2.57] + 500$
- $\text{SdS for AE} = [100(\text{AE} - 20.11) / 2.80] + 500$

In comparison, the results showed where the sample school related to the normative sample. For example, if the school score was 800, then it ranked higher than 99% of the schools or three standard deviations above the mean. The ranking of standardized scores was defined as follows:

1. If the score is 800, it is higher than 99% of the schools.
2. If the score is 700, it is higher than 97% of the schools.
3. If the score is 600, it is higher than 84% of the schools.
4. If the score is 500, it is average.
5. If the score is 400, it is lower than 84% of the schools.
6. If the score is 300, it is lower than 97% of the schools.
7. If the score is 200, it is lower than 99% of the schools.

The overall health index (HI) was calculated by summing the dimensions and dividing by 6. The corresponding equation is $\text{HI} = (\text{SdS II} + \text{CL} + \text{PI} + \text{RS} + \text{TA} + \text{AE}) / 6$.

Although admitting that the scores attained by most schools fell between the extremes and required consideration of all elements of climate, Hoy ranked the scores (Table 9) to compare the school's health index with the normative sample.

Demographic Survey

A demographic survey (Appendix C) was developed to provide descriptive statistics while addressing each of the research questions. This survey asked participants to report gender, ethnicity, subject taught, degree level, years of experience, and highly qualified status. Additionally, this survey asked the participants to respond yes/no to three

Table 9

Overall Health Index

Standardized Score	Health of the School
Below 400	Very low
400 to 449	Low
450 to 475	Below average
476 to 489	Slightly below average
490 to 510	Average
511 to 524	Slightly above average
525 to 550	Above average
551 to 600	High
Over 600	Very high

questions. (1) During the past year, have you ever thought about leaving the profession? (2) If given the opportunity, would you leave the teaching profession? (3) During the past year, has your school been placed on the list for not meeting AYP? The demographic data were collected to provide supplementary information when discussing each of the research questions, and to test for relationships that might exist between the demographic variables and job satisfaction, school accountability, and organizational health.

Procedures

To gain approval for the proposed data collection process, the researcher submitted Form A to the Institutional Review Board (IRB). Upon endorsement of the IRB and its decision by the Office of Research, the research process began with contacting schools already identified in the accountability matrix quadrants.

Data Collection

The researcher contacted the school principal from each selected school to garner the cooperation and participation of the school; in some cases, the principal referred the researcher to the district level for this decision (see Appendix D for a sample permission letter sent to those districts). Schools were contacted beginning at the top of each quadrant (refer to Table 4). If a school leader refused to participate in the study, the next school in the list was contacted until five schools from each quadrant agreed to participate in the study. In addition, any school with less than 50% participation was removed from the study and replaced with the next school on the list to provide a more accurate assessment of the organizational health of the school. In the end, two schools from each quadrant (a total of 8 schools) participated in this research study. After

permission was granted, arrangements were made with the school principal to email a cover letter to each of the teachers. The cover letter included a link to a website to complete the online survey (JSS, OHI-M, and demographic survey) and other informational components identified by Willard (2004), as follows:

1. Voluntary participation with a notation of the value of the study to the field of education;
2. A brief explanation of the completion process of both surveys;
3. The purpose and usefulness of the study to the field of education;
4. Appreciation to the respondents for participating in the program, and
5. A statement confirming availability of results on a website and in a submission to each individual school.

One week after the original email, the researcher sent another email to the sample population reminding all of the teachers to complete the surveys online. Finally, a third message was sent to the teachers asking them to complete the survey. To preserve anonymity and confidentiality, the researcher assigned a number code to each school. Participation was voluntary, and teachers were not asked to identify themselves online. The online survey began with an introduction page (Appendix E), including a statement about anonymity and confidentiality and the voluntary participation option. Response data were automatically collected online. The researcher subsequently downloaded the data into an Excel file and exported it to SPSS following the completion of the survey by all participants at each school.

The University of Tennessee Statistical Consulting Center provided statistical assistance in the analysis of the data. At the completion of the data analysis, the findings,

aggregated by each school individually and across all participating schools, were sent to each participating school system.

Data Analysis

As a result of collecting all of the information from an online survey, data entry error was limited to participant entries. The information collected for each school was downloaded into an Excel spreadsheet and then imported into SPSS for analysis. Descriptive statistics (including means and standard deviations) were summarized for each of the survey items, including the demographic survey used to provide a snapshot of the respondents. ANOVAs and pair-wise comparisons with Bonferroni corrections were conducted on data related to all schools within the respective quadrants to identify any differences between school accountability and job satisfaction (Research Question 1) and on organizational health (Research Question 2). A regression analysis was conducted on data related to all schools to identify any differences between job satisfaction facets and organizational health dimensions (Research Question 3). These tests were followed by an ANOVA to determine the extent to which participant demographics helped to explain the differences between job satisfaction and organizational health (Research Question 4). Data were analyzed for each school individually and collectively across the entire sample. Standardized scores were calculated for each dimension, and an overall job satisfaction and health index score were determined for each school. Mike O'Neil, an associate of the University of Tennessee Statistical Consulting Center, was consulted to ensure that appropriate calculations were done throughout the data analysis process. The

data analyses corresponded to each of the following research questions for the study

(Table 10):

Research Question #1: What is the significant difference between school accountability (student achievement and TVAAS z scores) and teacher job satisfaction in Tennessee public middle schools?

Research Question #2: What is the significant difference between school accountability (student achievement and TVAAS z scores) and organizational health in Tennessee public middle schools?

Research Question #3: What is the significant difference between teacher job satisfaction facets as measured by the JSS (Pay, Promotion, Supervision, Fringe Benefits, Contingent Rewards, Operating Conditions, Coworkers, Nature of Work, and Communication), and organizational health dimensions as measured by the OHI-M (Teacher Affiliation, Collegial Leadership, Resource Influence, Institutional Integrity, and Academic Emphasis) in Tennessee public middle schools?

Research Question #4: What is the relationship among teacher demographic variables (gender, ethnicity, subject taught, degree status, years of experience, and highly qualified status), school accountability (student achievement and TVAAS z scores), job satisfaction, and organizational health in Tennessee public middle schools?

Table 10

Data Analyses by Research Question

Research Question/Test	Type of Variables	Data Source	Components/Facets
#1 One-way ANOVA	Independent	Accountability Matrix (Quadrants I-IV)	Achievement/value-added scores School clusters
	Dependent	JSS	Pay Promotion Supervision Benefits Contingent Rewards Conditions Coworkers Nature of Work Communication Satisfaction Score
#2 One-way ANOVA	Independent	Accountability Matrix (Quadrants I-IV)	As above
	Dependent	OHI-M	Institutional Integrity Collegial Leadership Principal Influence Resource Support Teacher Affiliation Academic Emphasis Health Index Score
#3 Regression Analysis	Independent	JSS	As above
	Dependent	OHI-M	As above
#4 One-way ANOVA	Independent	Demographic Survey	Gender; ethnicity; subject taught; degree level; years of experience
	Dependent	JSS	As above
		OHI-M	As above

Summary of Chapter 3

In conclusion, a quantitative, descriptive form of research was used to complete this study. Secondary data were collected from the Tennessee Report Card (2010). Achievement scores and value-added scores were standardized to z scores. The scores were then distributed in rank order into the four quadrants of the accountability matrix. The outliers of each quadrant were removed from the sample population for the study. The researcher created a demographic survey. The demographic questionnaire accompanied by two existing instruments – the JSS and the OHI-M – were used to survey a purposive, stratified, cluster sample of Tennessee middle school teachers by means of an online, technology-driven survey tool and to collect the data necessary to answer the research questions. With the assistance of statistical professionals, the researcher used descriptive and inferential statistics to identify relationships suggested by all the data collected. The results and findings from this data collection and analysis are presented in Chapter 4.

CHAPTER 4

FINDINGS AND RESULTS

The purpose of this quantitative study of selected Tennessee middle schools was to examine the relationship between teacher job satisfaction and teacher perceptions of the organizational health of the school. A secondary purpose was to determine if any differences existed between job satisfaction and organizational health in relation to the demographic variables self-reported by middle school teacher respondents. The dimensions of the Organizational Health Inventory-Middle (OHI-M, Hoy, 2003; Hoy & Sabo, 1998) and the facets of the Job Satisfaction Survey (JSS, Spector, 1997) were examined in light of the school accountability matrix as measured by calculated standard scores (z scores) of student achievement and value-added scores taken from the *Tennessee Report Card* (2010). Chapter 3 addressed the study design, population and sample, sampling frame, purposive sample, instrumentation, data collection, and data analysis. This chapter discusses the results of the data analysis pertaining to each null hypothesis.

Response Rates

This study used a stratified, purposive cluster sample to survey teachers from schools representing the quadrants of the accountability matrix: Quadrant I, high achievement and high value-added; Quadrant II, high achievement and low value-added; Quadrant III, low achievement and high value-added; Quadrant IV, low achievement and low value-added. Although purposive sampling is not typically conducive to generalizing to a population, it is important to note that, for this study, the researcher invited all

principals from each school identified in each quadrant to participate. However, only 12 principals elected to participate in this study, and of those 12 participating schools, four were removed from the analysis due to their low response rate. Nonparticipating principals opted out for the following four reasons:

1. At the beginning of the 2011-2012 school year, Tennessee introduced a new evaluation assessment for teachers that required a demanding amount of work outside of the classroom. This created substantive time constraints and pressure, along with additional stress on each individual teacher.
2. During the previous school year, Tennessee had already conducted a time-consuming, statewide survey called “Tell Tennessee.” Some systems believed that asking their teachers to complete additional surveys would place an even greater time constraint on their teachers.
3. Schools in Quadrants III and IV were already experiencing pressure at the state level because of negative achievement scores. They feared exposing their teachers to additional pressures by asking them to complete surveys for research purposes.
4. Schools failing to meet benchmarks previously established under Average Yearly Progress (AYP) standards were already under state scrutiny, and principals were afraid of putting further undue pressure on their teachers.

Originally, the researcher contacted all 40 principals representing 10 schools from each quadrant by email and by telephone, with follow-ups sent or placed, as needed.

Several of the principals advised the researcher that, if the district approved the study, then their school would participate in the study. With that contingency imposed, requests for research were sent to six school districts. One school superintendent refused to participate in the study. One superintendent initially refused, but later agreed to participate in the study if teachers could complete hard copies of the surveys. One superintendent approved the study, but no principals in that system agreed to participate in the study at first until one principal agreed to participate if that school could complete

hard copies of the surveys. Another superintendent approved the study, but only two principals from the district agreed to participate, but would only ask their teachers to complete the online survey one time. This resulted in an insufficient number of teacher responses from both schools.

Initially, the researcher had planned to conduct all surveys online. The online survey was selected as a convenient tool to access teachers across the state. However, this researcher was dependent on school principals relaying email requests to his/her teachers. Some principals were very effective at this task: School 110, School 120, and School 210. Other schools were not, resulting in four schools that agreed to participate, but with only a small percentage of teachers actually completing the survey even after sending numerous reminders. Eventually, the researcher was forced to remove these schools from the study and secure new schools to participate. After several schools refused to conduct the online survey, the researcher decided to make available hard copies of the survey that could be passed out and collected at the school level. Three principals agreed to participate using the hard copies: School 320, 340, and 420. The researcher sent hard copies for each certified teacher to the school; the principal and/or a staff member distributed the surveys, collected the surveys, and then returned the surveys to the researcher. The researcher manually entered participant survey responses into the online survey. In the end, a total of eight schools (two schools from each quadrant) agreed to participate in the research as reflected in Table 11.

Table 11

School Response Rates

School (Quadrant)	Certified Teachers	Participating Teachers	Response Rate
School 110 (QI)	41	21	51%
School 120 (QI)	30	25	83%
School 210 (QII)	32	22	69%
School 240 (QII)	40	18	45%
School 320 (QIII)	40	23	58%
School 340 (QIII)	52	27	52%
School 410 (QIV)	26	14	54%
School 420 (QIV)	40	27	68%
Total:	301	177	59%

The eight schools had 301 certified teachers who were possible participants; of these, 177 (59%) completed the surveys. Interestingly enough, response rates of online completion (59.17%) and hard copy completion (58.33%) were practically the same. However, the researcher strongly believed more schools would have agreed to participate in the study had he used hard copy surveys from the beginning. Additionally, the researcher had to send numerous (often more than four requests) to each of the schools participating in the online survey to receive the optimal number of participants from each school. All but School 240 had a majority of possible participants complete the survey; the researcher sent this school four email requests and provided a hard copy request that was placed in each of the teacher's mailboxes.

Accountability Matrix Rates

This study used a stratified purposive cluster sample derived from the quadrants of the accountability matrix: Quadrant I, high achievement and high value-added; Quadrant II, high achievement and low value-added; Quadrant III, low achievement and high value-added; Quadrant IV, low achievement and low value-added. The quadrants combined to form the stratified sample, and the teachers from each school comprised the sample clusters.

In Tennessee, the level of student success on the Tennessee Comprehensive Assessment Program (TCAP) determines the achievement level of the student and the effectiveness of the teacher/school at educating each of their students. The achievement level is reported as an achievement score. The effectiveness of the teacher/school is measured by Tennessee Value-Added Assessment System (TVAAS). TVAAS is used to determine a value-added score for each individual teacher, school, and district. Recently, Tennessee has agreed to include TVAAS in the evaluation (35% of evaluation score) of teachers throughout Tennessee. The new evaluation program started in August 2011.

Each quadrant of the accountability matrix had teachers from two schools that participated in the study as illustrated in Table 12. The researcher was not surprised that Quadrant I had the highest participation rate (65%) because the quadrant represented positive achievement and positive value-added scores. When schools were perceived as doing well, they were more likely to participate, sharing their success with others. However, only 4 out of 10 schools in Quadrant I agreed to participate, and two of those schools were excluded from the study because of the lack of school participation.

Table 12

Accountability Matrix Response Rates

Quadrant	Certified Teachers	Participating Teachers	Response Rate
Quadrant I	71	46	65%
Quadrant II	72	40	55%
Quadrant III	92	50	54%
Quadrant IV	66	41	62%
Total:	301	177	59%

Evidently, the successful schools were not willing to share that success, and/or they were so focused on being successful that outside endeavors became less important. The researcher was not surprised that Quadrant III had the lowest response rate because of the difficulty in obtaining schools to participate in the study. The researcher contacted 19 principals from this quadrant and could only get four schools to participate; two of the schools were replaced because of lack of cooperation and participation. Surprisingly, Quadrant IV had a very high response rate; this might be attributed to the hardcopies used for School 420. School 410 was the smallest school sample used. Quadrant II represented the second lowest response rate, but included the lowest school response rate (School 240) and the most cooperative school principal (School 210). The researcher contacted 10 principals from Quadrant II; four agreed to participate, and only two schools had a large enough response to be included in the study. Overall, the researcher collected a fairly balanced distribution of participants across each of the quadrants, as demonstrated in Table 13.

Description of Participants

The data for this study were collected from participants from eight middle schools representing seven districts across Eastern Tennessee. The schools were representative of diverse geographic population densities (urban, suburban, and rural) and size of school based on student populations (small, medium, and large) as illustrated in Table 14. Participating schools represented two small-, three medium-, and three large-sized schools based on their respective local population with densities ranging from one urban, three rural, and four suburban areas in East Tennessee.

The demographic data describing this study's participants are presented in Table 15 as frequencies and percentages. All 177 participants (100%) answered each of the demographic questions. The study included 49 male (27.7%) and 128 female (72.3%) participants, not surprisingly, because female employees dominate education occupations. With respect to ethnicity, 169 participants (95.5%) described themselves as white. Only eight participants (4.5%) described themselves as something other than white: five (2.8%), African American, one (.6%), Hispanic, and two (1.1%), "other."

With respect to subject taught, 122 teachers (69%) reported teaching the core curricula of reading/language arts, math, science, and social studies: 35 math teachers (19.8%), 49 reading/language arts teachers (27.7%), 19 science teachers (10.7%), and 19 social studies teachers (10.7%). The remaining 55 teachers (31.1%) reported teaching a subject outside of the core curricula. The participants self-reported the following

Table 13

Participant Distribution across Quadrants

Quadrant	Participants	Distribution
Quadrant I	46	26%
Quadrant II	40	23%
Quadrant III	50	28%
Quadrant IV	41	23%
Total:	177	100%

Table 14

Schools Categorized by School Size and Population Density Type

School	Students	School Size	Population Density Type
School 110	644	Large	Suburban
School 120	483	Medium	Suburban
School 210	525	Medium	Rural
School 240	730	Large	Suburban
School 320	361	Small	Suburban
School 340	742	Large	Urban
School 410	327	Small	Rural
School 420	488	Medium	Rural

Table 15

Demographic Characteristics of Participants

Characteristic	Frequency	Percentage	Cumulative Percentage
Gender			
Male	49	27.7%	27.7%
Female	128	72.3%	100.0%
Total:	177	100.0%	
Ethnicity			
White	169	95.5%	95.5%
African American	5	2.8%	98.3%
Hispanic	1	.6%	98.9%
Other	2	1.1%	100.0%
Total:	177	100.0%	
Subject Taught			
Math	35	19.8%	19.8%
Reading/Language Arts	49	27.7%	47.5%
Social Studies	19	10.7%	58.2%
Science	19	10.7%	68.9%
Other	55	31.1%	100.0%
Total:	177	100.0%	
Educational degree level			
Bachelor's	44	24.9%	24.9%
Master's	86	48.6%	73.4%
Educational Specialist (Ed.S.)	46	26.0%	99.4%
Doctorate	1	0.6%	100.0%
Total:	177	100.0%	
Total Teaching Experience			
Less than 2 years	6	3.4%	3.4%
2-5 years	26	14.7%	18.1%
6-15 years	78	44.1%	62.1%
16-25 years	37	20.9%	83.1%
26 years or more	30	16.9%	100.0%
Total:	177	100.0%	

educational levels on the demographic questionnaire: 44 (24.9%) had earned a bachelor's degree; 86 (48.6%), master's degree; 46 (26%), educational specialist degree, and one (0.6%), doctorate degree.

For the last demographic question, teachers self-reported their total teaching experience: 6 (3.4%) had less than 2 years of experience; 26 (14.7%), between 2 and 5 years; 78 (44.1%), between 6 and 15 years; 37 (20.9%), between 16 and 25 years; and 30 (16.9%), over 26 years of experience. Further analysis of the demographic questions will be reported when discussing the fourth research question later in this chapter.

Analyses of Hypothesis Testing

As previously discussed in the data analysis section in Chapter 3, the four null hypotheses were tested using various types of statistical analyses. Descriptive statistics and ANOVAs were conducted on H₀₁, H₀₂, and H₀₃ to determine any significant differences that might exist between the teacher job satisfaction and teacher perceptions of the school organizational health with respect to the accountability matrix. Descriptive statistics and a regression analysis were conducted on H₀₄. The following sections will discuss the results of each analysis in detail.

Statistical Results for Null Hypothesis 1

H₀₁: No significant difference exists between school accountability as measured by achievement and TVAAS *z* scores and teacher job satisfaction as measured by JSS in Tennessee public middle schools ($p < .05$).

As reported in Table 16, the overall satisfaction of the teachers (136.4 total satisfaction score) in this study is consistent with Spector (1997) total mean average

Table 16

Published and Sample Means by JSS Facets and Total Job Satisfaction

Facet	Published Mean	Sample Mean
Pay	11.8	10.6
Promotion	12.0	12.0
Supervision	19.2	20.5
Benefits	14.2	14.0
Contingent Rewards	13.7	13.6
Operating Conditions	13.5	11.3
Coworkers	18.3	18.9
Nature of Work	19.2	19.1
Communication	14.4	16.4
Total Job Satisfaction:	136.5	136.4

(136.5) across all professions, at least those participating and reporting the survey data for the JSS. According to Spector, schools that score 36-108 are to be considered dissatisfied; 108-144, ambivalent; and 144-216, satisfied. Additionally, subscales can be interpreted as 4-12, dissatisfied; 12-16, ambivalent; and 16-24, satisfied. Therefore, the total satisfaction score for all schools (136.4) represents an ambivalent response to teacher satisfaction. However, teachers indicated dissatisfaction on Pay (10.6), Operating Conditions (11.3), and Promotion (12.0). They were ambivalent on Benefits (14.0) and Contingent Rewards (13.6), but were satisfied with Supervision (20.5), Coworkers (18.9), Nature of Work (19.1), and Communication (16.4).

When interpreting a total teacher satisfaction score for each school within the accountability matrix as illustrated in Table 17, two schools scored in Spector's satisfied scale: School 240 (153.5 total satisfaction score) and School 410 (152.6 total satisfaction score). All other teachers from the remaining schools scored in the ambivalent scale (108-144); however, School 120 had a total satisfaction mean score of 142.9 missing the satisfied scale by 1 point.

School 240 has had a long tradition of academic excellence scoring extremely high each year with academic achievement, but has had a difficult time achieving positive gains for TVAAS scores. The teachers of School 240 responded with satisfaction levels for the following facets: Supervision (19.7); Benefits (16.4); Contingent Rewards (16.1); Coworkers (20.1); Nature of Work (20.7); and Communication (19.11). The teachers of School 240 only responded with dissatisfaction to Operating Conditions (11.7) and responded ambivalently to all other facets.

School 410 was a rural small school with the least number of teachers and students. The teachers there responded with high satisfaction in the following areas: Supervision (22.9); Coworkers (20.1); Nature of Work (20.2); Communication (19.4); Benefits (16.7); and Contingent Rewards (16.9). School 410 only responded with dissatisfaction on Pay (10.7) while all other facets represented an ambivalent response. Interestingly enough, teachers with overall positive total satisfaction scores had the same satisfaction level for the facets of Supervision, Benefits, Contingent Rewards, Coworkers, Nature of Work, and Communication. However, both school groups were dissatisfied in the area of one facet, but teachers from School 240 were dissatisfied with Operating

Table 17

JSS Mean Scores by School and Quadrant

School	Total JSS Score	Quadrant	Mean Score
110	130.2	1	137.1
120	142.9		
210	134.9	2	143.3
240	153.5		
320	129.0	3	129.2
340	129.4		
410	152.6	4	137.6
420	129.8		
Overall:	136.4		

Conditions, and teachers from School 410 were least satisfied with Pay. Teachers from School 240 have occupied the same facility during the last 30 years; just recently, the school system had to reconfigure grade levels in each school to eliminate overcrowding. Teachers from School 410 are in a district that pays less than all of the school districts within the area; therefore, it would not be surprising that the teachers were most dissatisfied with Pay.

The schools with the least satisfied teachers: School 110 (130.2 total satisfaction score), School 320 (129.0 total satisfaction score), School 340 (129.4 total satisfaction score), and School 420 (129.8 total satisfaction score); were all dissatisfied with the JSS Pay facet. Overall, the least satisfied facet of teacher job satisfaction was identified as

Pay (10.6 mean average). Additionally, the demographic questionnaire had two questions about participant perceptions concerning their desire to remain in the teaching profession. When asked, “During the past year, have you ever thought about leaving the teaching profession?” – the participants responded that 66.7% had thought about leaving the teaching profession. When asked, “If given the opportunity would you leave the teaching profession?” – 59.3% responded that they would leave the teaching profession if given the opportunity. Both statements support an overall dissatisfaction with the teaching profession reported by a majority of the respondents who have either thought about leaving or would leave the teaching profession if given the opportunity.

As seen in Table 18, the ANOVA revealed a significant difference between the accountability matrix quadrants and the following job satisfaction facets: Supervision ($F = 6.786, p = .000$), Coworkers ($F = 4.649, p = .004$), Nature of Work ($F = 4.649, p = .042$), and Communication ($F = 6.709, p = .000$). A closer examination of the Supervision job facet revealed that individual participants’ perceptions within Quadrant III demonstrated a significant difference with Quadrant I ($p = .001$), Quadrant II ($p = .003$), and Quadrant IV ($p = .004$). The Coworkers job facet revealed that individual participants’ perceptions were significantly different between Quadrant II and Quadrant III ($p = .005$), and Quadrant II and Quadrant IV ($p = .039$). The communication job facet revealed that individual participants’ perceptions within Quadrant III demonstrated a significant difference with Quadrant I ($p = .017$), Quadrant II ($p = .000$), and Quadrant IV ($p = .010$). Additionally, a significant difference was reported between Quadrant II and Quadrant III ($p = .03$) for the job satisfaction total.

Table 18

Differences between Quadrants and JSS Facets as Determined by ANOVA Results

JSS Facet	<i>df</i>	<i>F</i>	Sig.**
Pay	3	1.518	.212
Promotion	3	1.559	.201
Supervision	3	6.786	.000**
Benefits	3	2.039	.110
Contingent Rewards	3	.603	.614
Operating Procedures	3	1.387	.248
Coworkers	3	4.649	.004**
Nature of Work	3	2.790	.042**
Communication	3	6.709	.000**

* $p < .05$

**Independent Variable: Accountability Matrix Quadrants

In Table 19, the participants revealed a significant difference between high and low-achieving schools and the job facets of coworkers ($F = 12.164, p = .000$), communication ($F = 7.538, p = .007$), and supervision ($F = 6.773, p = .010$). Participants from higher achieving schools responded with higher satisfaction scores for the following facets: coworkers, communication, and supervision. In Table 20, the participants reported a significant difference between high and low value-added schools and the job facets of communication ($F = 9.609, p = .002$), supervision ($F = 5.614, p = .019$), and benefits ($F = 4.735, p = .031$). Participants from lower achieving schools responded with higher satisfaction scores for the following facets: Communication, Supervision, and Benefits.

No significant difference was revealed between achievement and the total job satisfaction score ($p = .054$). However, a significant difference was reported between value-added and the total job satisfaction score ($p = .041$) with the mean difference significant at the $p < .05$ levels. The participant perceptions supported that higher achievement scores translated into higher job satisfaction totals. Additionally, the participant perceptions revealed that lower value-added scores translated into higher job satisfaction total; an inverse relationship between value-added scores and overall job satisfaction was discovered.

Table 19

Differences between Achievement and JSS Facets as Determined by ANOVA Results

JSS Facet	<i>df</i>	<i>F</i>	Sig.**
Pay	1	1.818	.179
Promotion	1	1.793	.182
Supervision	1	6.773	.010**
Benefits	1	.746	.389
Contingent Rewards	1	.000	.993
Operating Procedures	1	.024	.877
Coworkers	1	12.164	.001**
Nature of Work	1	3.845	.052
Communication	1	7.538	.007**

* $p < .05$

**Independent Variable: Achievement

Table 20

Differences between Value-added Scores and JSS Facets as Determined by ANOVA Results

JSS Facet	<i>df</i>	<i>F</i>	Sig.**
Pay	1	.854	.357
Promotion	1	1.704	.194
Supervision	1	5.614	.019**
Benefits	1	4.735	.031**
Contingent Rewards	1	1.704	.194
Operating Procedures	1	2.564	.111
Coworkers	1	1.612	.206
Nature of Work	1	1.165	.282
Communication	1	9.609	.002**

* $p < .005$

**Independent Variable: Value-added Scores

Statistical Results for Null Hypothesis 2

H₀2: No significant difference exists between school accountability as measured by achievement and TVAAS *z* scores and organizational health as measured by OHI-M in Tennessee public middle schools ($p < .05$).

As reported in Table 21, the average participant perceptions concerning school organizational health was higher than the established norm—the means as reported by Hoy (2003) for the following organizational dimensions: Institutional Integrity (18.97),

Table 21

Published OHI Means (Hoy, 2003) Compared to Sample Means by Respective Dimension

Dimension	Published Mean	Sample Mean	Standard Deviation
Institutional Integrity (II)	16.41	18.97	4.12
Collegial Leadership (CL)	26.61	28.28	5.64
Principal Influence (PI)	16.37	17.16	3.16
Resource Support (RS)	16.72	16.80	4.21
Teacher Affiliation (TA)	28.34	25.60	4.00
Academic Emphasis (AE)	20.11	22.32	4.74

Collegial Leadership (28.28), Principal Influence (17.16), Academic Emphasis (22.32), Resource Support (16.80); but Teacher Affiliation (25.60) was the only dimension lower than Hoy's norm.

As reported in Table 22, the standardized dimension scores were calculated using Hoy's method; this allowed the researcher to rank scores collected to a normative sample as identified in Chapter 3. Under Academic Emphasis, teachers from School 240 ranked higher than 97% of the schools (two standard deviations above the mean). This result is not surprising because this school had been known for their academic achievement; therefore, it could be assumed that substantive emphasis was placed on academic achievement within the school. All teachers from high-achieving schools (School 110, School 120, School 210, and School 240) had an above average (higher than 84% of the normative sample) score for the Academic Emphasis health dimension. From these data, one might conclude that higher academic emphasis equates to higher academic

Table 22

Standardized Dimension Scores by School

School	SdS for II	SdS CL	SdS PI	SdS RS	SdS TA	SdS AE
110	645.88	507.95	534.21	411.06	379.03	604.91
120	579.08	587.06	510.85	580.61	426.07	657.50
210	578.95	657.53	587.61	446.70	449.63	651.92
240	532.74	528.48	629.30	618.38	452.18	777.82
320	536.34	461.29	425.12	461.05	309.14	522.47
340	625.99	481.56	547.19	447.28	421.92	415.38
410	677.96	666.46	654.38	554.10	408.95	557.30
420	573.46	526.48	487.79	535.99	325.36	515.91

achievement, or that, because of higher student academic achievement scores, teachers perceived more emphasis placed on academic achievement within their school.

All participants in this sample perceived that Teacher Affiliation was ranked lower than the normative average sample. Teacher Affiliation was defined in terms of teachers feeling good about each other, their job, and their students. With increased accountability required and the resulting increase in pressure, low scores on Teacher Affiliation could be expected. Schools 110, 210, 320, and 340 scored lower than the normative sample for resource support. Resource Support was defined primarily as the availability of classroom supplies and instructional materials.

Teachers from Schools 320 and 340 also scored less than the normative mean for Collegial Leadership, with the principal's behavior defined as friendly, supportive, and

guided by norms of equality while holding high performance expectations for the teachers. With teachers from Schools 320 and 340 both in the category of lower than the normative mean for Resource Support and Collegial Leadership (another supportive role from the administration), one might conclude that both of the schools indicated a deficiency in support – both physically and emotionally – from the school system. Institutional Integrity had the overall highest standardized scores for all teachers; teachers from Schools 110, 340, and 410 were all 84% higher than the normative sample. Institutional Integrity was defined as the degree to which the school could cope with the environmental conditions such as unreasonable community and parental demands.

The overall standardized scores for teacher's perception of the organizational health of the school were calculated and reported in Table 23. Teachers from Schools 110 and 120 (high student achievement and high value-added scores) perceived their schools as having above average to high organizational health. Teachers from Schools 210 and 240 (high student achievement and low value-added scores) perceived a high organizational health for their school. Teachers from Schools 320 and 340 (low student achievement and high value-added scores) perceived organizational health in their schools to be average to below average. Teachers from Schools 410 and 420 (representing low student achievement and low value-added scores) perceived organizational health in their schools to be average to high.

All teachers from high achievement schools considered the overall organizational health of their schools above average to high, but only three of the four school participant groups with low-achieving scores perceived that their school had an average to below

Table 23

Overall Health Index

School	Standardized Score	Health of the School
School 110	513.89	Slightly above average
School 120	556.86	High
School 210	562.06	High
School 240	589.82	High
School 320	452.57	Below average
School 340	489.89	Average
School 410	586.53	High
School 420	494.17	Average

average overall organizational health. That teachers from School 410 maintained a high perception of overall organizational health might be explained by the small size of the school. School 410 represented the smallest school in this study. All teachers from small schools (120, 210, and 410) reported a high perception of school organizational health.

As seen in Table 24, the ANOVA revealed a significant difference between the quadrants of the accountability matrix and the following organizational health dimensions: Collegial Leadership ($F = 6.638, p = .000$), Principal Influence ($F = 5.002, p = .002$), Resource Support ($F = 2.707, p = .047$), Teacher Affiliation ($F = 3.273, p = .023$), and Academic Emphasis ($F = 25.773, p = .000$). These differences existed between Quadrant II and Quadrant III on Collegial Leadership ($p = .000$) and Principal Influence ($p = .001$); between Quadrants I and III ($p = .000$), Quadrants I and IV ($p = .005$),

Table 24

Differences between Quadrants and OHI Dimensions as Indicated by ANOVA Results

OHI Dimension	<i>df</i>	<i>F</i>	Sig.**
Institutional Integrity	3	1.164	.325
Collegial Leadership	3	6.638	.000**
Principal Influence	3	5.002	.002**
Resource Support	3	2.707	.047**
Teacher Affiliation	3	3.273	.023**
Academic Emphasis	3	25.773	.000**

* $p < .05$

**Independent Variable: Accountability Matrix Quadrants

Quadrants II and III ($p = .000$); and Quadrants II and IV ($p = .000$) on Academic Emphasis; between Quadrants II and IV ($p = .029$) on Teacher Affiliation; between Quadrants III and IV ($p = .006$) on Collegial Leadership; and between Quadrants I and II ($p = .043$) on Principal Influence.

In Table 25, participants revealed a significant difference between achievement and the following organizational health dimensions: Teacher Affiliation ($F = 8.148$, $p = .005$), Collegial Leadership ($F = 5.613$, $p = .019$), Principal Influence ($F = 4.490$, $p = .036$), and Academic Emphasis ($F = 65.619$, $p = .000$). No significant difference was reported under the following dimensions: Institutional Integrity ($p = .554$) and Resource Support ($p = .511$). In schools with high achievement scores, responses indicated Teacher Affiliation, Academic Emphasis, Collegial Leadership, Principal Influence, and Resource Support dimensions to be higher than those at schools with low achievement scores.

Table 25

Differences between Achievement and Organizational Health Dimensions as Indicated by ANOVA Results

Dependent Variable	<i>df</i>	<i>F</i>	Sig.**
Institutional Integrity	1	.352	.554
Collegial Leadership	1	5.613	.019**
Principal Influence	1	4.490	.036**
Resource Support	1	.433	.511
Teacher Affiliation	1	8.148	.005**
Academic Emphasis	3	65.619	.000**

* $p < .05$

**Independent Variable: Achievement

In Table 26, participant responses revealed a significant difference between value-added scores and the following organizational health dimensions: Collegial Leadership ($F = 11.791, p = .001$), Principal Influence ($F = 10.137, p = .002$), Resource Support ($F = 5.261, p = .023$) and Academic Emphasis ($F = 10.731, p = .001$). No significant differences were found between value-added scores and the following organizational health dimensions: Institutional Integrity ($p = .541$) and Teacher Affiliation ($p = .517$). Participants from schools with low value-added scores rated Collegial Leadership, Principal Influence, Resource Support, Collegial Leadership, and Academic Emphasis health dimensions higher than did participants at schools with high value-added scores; this was an inverse relationship. Additionally, comparison of these same schools revealed a significant difference between achievement and the total organizational health index ($F = 14.798, p = .000$) as well as between value-added scores and the total organizational

Table 26

Differences between Value-added Scores and Organizational Health Dimensions as Indicated by ANOVA Results

Dimension	<i>df</i>	<i>F</i>	Sig.**
Institutional Integrity	1	.376	.541
Collegial Leadership	1	11.791	.001**
Principal Influence	1	10.137	.002**
Resource Support	1	5.261	.023**
Teacher Affiliation	1	.422	.517
Academic Emphasis	3	10.731	.001**

* $p < .05$

**Independent Variable: Value-added

health index ($F = 9.639$, $p = .002$). A positive impact existed between organizational health and student achievement; higher achievement resulted in higher total organizational health scores. An inverse impact existed between organizational health and value-added scores, while lower value-added scores resulted in higher total organizational health scores.

Statistical Results for Null Hypothesis 3

H₀₃: No significant relationship exists between job satisfaction (Pay, Promotion, Supervision, Fringe Benefits, Contingent Rewards, Operating Conditions, Coworkers, Nature of Work, and Communication), and organizational health (Teacher Affiliation, Collegial Leadership, Resource Influence, Institutional Integrity, and Academic Emphasis) ($p < .05$) in Tennessee public middle schools.

A regression analysis was conducted to determine if a significant relationship existed between teacher perceptions of job satisfaction and organizational health. In Table 27, the dependent variable was the total organizational health index compared to the independent variables – the nine JSS facets (Pay, Promotion, Supervision, Fringe Benefits, Contingent Rewards, Operating Conditions, Coworkers, Nature of Work, and Communication). A significant relationship was found between the organizational health total and Supervision ($\beta = .250, p < .05$), Coworkers ($\beta = .248, p < .05$), Nature of Work ($\beta = .208, p < .05$), and Communication ($\beta = .208, p < .05$). No significant relationship

Table 27

Relationships of OHI Total and JSS Facets as Indicated by Regression Coefficients

JSS Facet	B	Std. Error	β	t	Sig.**
Pay	.298	.273	.075	1.091	.277
Promotion	.125	.269	.029	.465	.643
Supervision	1.140	.286	.250	3.990	.000**
Benefits	-.205	.237	-.049	-.865	.388
Contingent Rewards	.102	.284	.026	.359	.720
Operating Conditions	.124	.266	.027	.464	.643
Coworkers	1.192	.294	.248	4.058	.000**
Nature of Work	1.014	.282	.208	3.598	.000**
Communication	.959	.265	.246	3.620	.000**

* $p < .05$

**Dependent Variable: OHI-Total

was discovered between the organizational health total and Pay, Promotion, Benefits, Contingent Rewards, and Operating Conditions.

In Table 28, the dependent variable was the JSS total compared to the independent variables – six dimensions of organizational health (Teacher Affiliation, Collegial Leadership, Resource Influence, Institutional Integrity, and Academic Emphasis). A significant relationship was discovered between JSS total and Institutional Integrity ($\beta = .214, p < .05$), Collegial Leadership ($\beta = .312, p < .05$), Teacher Affiliation ($\beta = .150, p < .05$), and Academic Emphasis ($\beta = .197, p < .05$). No significant relationship was found between the JSS total and Principal Influence and Teacher Affiliation.

In Table 29, the correlations between the JSS facets and total job satisfaction score and between the OHI-M dimensions and total organizational health index score

Table 28

Comparison of JSS Total and OHI Dimensions

Dimension	B	Std. Error	β	t	Sig.**
Institutional Integrity	1.226	.338	.214	3.626	.000**
Collegial Leadership	1.308	.297	.312	4.405	.000**
Principal Influence	5.05	.516	.068	.979	.329
Resource Support	.844	.370	.150	2.283	.024**
Teacher Affiliation	.409	.388	.069	1.053	.294
Academic Emphasis	.982	.340	.197	2.883	.004**

* $p < .05$

**Dependent Variable: JSS-Total

Table 29

Correlations between OHI Dimensions and JSS Facets

	II	CL	PI	RS	TA	AE	OHI Total
Pay	.087	.115	.140	.363	.338	.343	.279
	.250	.128	.062	.000*	.402	.000*	.000*
Promotion	.081	.231	.172	.274	.090	.177	.261
	.286	.002*	.022*	.000*	.231	.018*	.000*
Supervision	.402	.763	.409	.189	.376	.267	.622
	.000*	.000*	.000*	.012*	.000*	.000*	.000*
Benefits	.101	.267	.218	.168	.128	.161	.264
	.183	.000*	.004*	.026*	.090	.033*	.000*
Rewards	.206	.368	.309	.367	.203	.336	.451
	.006*	.000*	.000*	.000*	.007*	.000*	.000*
Conditions	.308	.237	.159	.209	.092	.199	.305
	.000*	.002*	.035*	.005*	.223	.008*	.000*
Coworkers	.364	.450	.379	.214	.702	.375	.617
	.000*	.000*	.000*	.004*	.000*	.000*	.000*
Nature of Work	.301	.388	.342	.372	.356	.479	.562
	.000*	.000*	.000*	.000*	.000*	.000*	.000*
Communication	.365	.586	.471	.350	.418	.419	.657
	.000*	.000*	.000*	.000*	.000*	.000*	.000*
JSS Total:	.370	.575	.441	.430	.403	.468	.679
	.000*	.000*	.000*	.000*	.000*	.000*	.000*

* $p < .05$

**Pearson/Sig. (2-tailed)

revealed a significant relationship between teacher job satisfaction and the school organizational health ($r = .679, p < .05$). In essence, they showed that, the higher the organizational health of the school, the higher level of job satisfaction reported by the teachers. Therefore, the majority of JSS facets had a significant relationship with the organizational health dimensions; high job satisfaction was a predictor of high

organizational health, and vice versa. The more interesting phenomenon was the small number of organizational health dimensions and JSS facets that had no significant relationship: (1) Pay with Institutional Integrity ($r = .087$), Collegial Leadership ($r = .115$), and Teacher Affiliation ($r = .063$); (2) Promotion with Institutional Integrity ($r = .081$), and Teacher Affiliation ($r = .090$); (3) Benefits with Institutional Integrity ($r = 1.01$); and (4) Operational Conditions with Teacher Affiliation ($r = .092$).

Statistical Results for Null Hypothesis 4

H₀₄: No significant difference exists among teacher demographic variables (gender, ethnicity, subject taught, degree status, years of experience, desire to remain or leave the teaching profession, and determine if school is on the list for not meeting AYP), school accountability measured by achievement and TVAAS z scores, job satisfaction, and organizational health ($p < .05$) in Tennessee public middle schools.

In Table 30, the dependent variable JSS total revealed a significant difference with the questions: “Have you ever thought about leaving the teaching profession?” ($f = 19.786, p = .000$) and “If given the opportunity, would you leave the teaching profession?” ($f = 7.037, p = .009$). A closer examination of the JSS facets and the demographic questions revealed additional significant differences between the following: (1) ethnicity with Operational Conditions ($f = 3.725, p = .013$); (2) degree level with Pay ($f = 2.764, p = .044$); (3) experience with Pay ($f = 2.785, p = .029$) and promotion ($f = 2.756, p = .030$); (4) thought about leaving the teaching profession with Pay ($f = 26.587, p = .000$), promotion ($f = 19.850, p = .000$), contingent rewards ($f = 13.141, p = .000$), operating conditions ($f = 9.599, p = .002$), and nature of work ($f = 13.575, p = .000$);

Table 30

Comparison of JSS Total and Demographic Characteristics

Demographic Characteristic	<i>df</i>	<i>F</i>	Sig.**
Gender	1	.006	.939
Ethnicity	3	.382	.766
Subject	4	2.182	.073
Degree Level	3	1.065	.366
Experience	4	.724	.577
Thought about Leaving	1	19.786	.000**
Given Opportunity to Leave	1	7.037	.009**
Not Meeting AYP	1	1.130	.289

* $p < .05$

**Dependent Variable: JSS Total

(5) given the opportunity to leave with benefits ($f = 8.858$, $p = .003$), and nature of work ($f = 9.329$, $p = .003$).

More specifically, a significant difference between white and African Americans ($p = .022$) was recognized on Operational Conditions. A significant difference between reading/language arts and other teachers ($p = .047$) was recognized on benefits.

In Table 31, the dependent variable OHI-M total revealed a significant difference with the questions: "Have you ever thought about leaving the teaching profession?" ($f = 8.159$, $p = .005$) and the demographic variable of experience ($f = 3.227$, $p = .014$). More specifically, a significant difference was revealed between less than 2 years of experience and 26 years or more experience when measured against the OHI-M total ($p = .021$). A

Table 31

OHI-M Total and Demographic Characteristics

Demographic Characteristic	<i>df</i>	<i>F</i>	Sig.**
Gender	1	1.647	.201
Ethnicity	3	.091	.965
Subject	4	1.921	.110
Degree Level	3	1.891	.133
Experience	4	3.227	.014**
Thought about Leaving	1	8.159	.005**
Given Opportunity to Leave	1	2.102	.149
Not Meeting AYP	1	.001	.981

* $p < .05$

**Dependent Variable: OHI-M Total

closer examination of the OHI-M dimensions and the demographic questions revealed additional significant differences between the following: (1) gender with Principal Influence ($f = 6.952$, $p = .009$); (2) degree level with Teacher Affiliation ($f = 3.344$, $p = .021$); (3) experience with Resource Support ($f = 3.264$, $p = .013$) and Academic Achievement ($f = 8.071$, $p = .000$); (4) thought about leaving the teaching profession with Collegial Leadership ($f = 5.086$, $p = .025$), Resource Support ($f = 13.108$, $p = .000$), and Academic Achievement ($f = 5.789$, $p = .017$); (5) opportunity to leave the teaching profession with Academic Achievement ($f = 6.468$, $p = .012$); and (6) school on AYP list with Academic Achievement ($f = 5.322$, $p = .022$). More specifically, a significant difference between master's and Ed.S. degrees ($p = .016$) was recognized on the OHI-M

Teacher Affiliation dimension. A significant difference between less than 2 years of experience and 26 years or more experience ($p = .037$) was recognized on Resource Support. On Academic Emphasis, significant differences were recognized between the following experience levels: less than 2 and 6-15 years of experience ($p = .011$); less than 2 and 26 or more years of experience ($p = .003$); 2-5 and 6-15 years of experience ($p = .000$); 2-5 and 16-25 years of experience ($p = .030$); and 2-5 and 26 or more years of experience ($p = .000$).

Summary of Chapter 4

Chapter 4 discussed frequencies and percentages used to describe the common characteristics of the participants as well as the analytical procedures performed to test the four null hypotheses of this study. Null hypothesis H_01 was not fully rejected by conducting an ANOVA. Although there was no significant difference determined between achievement and total job satisfaction, a significant difference was identified between value-added scores and total job satisfaction. Null hypothesis H_02 was rejected because a significant difference was revealed by an ANOVA as existing between both achievement and value-added scores when compared with the overall organizational health index. When tested by regression analysis, null hypothesis H_03 was rejected due to a significant relationship exposed between teacher job satisfaction and organizational health. Null hypothesis H_04 was partially rejected because the ANOVA conducted established a significant difference between various components of the demographic questions when compared with job satisfaction and organizational health.

CHAPTER 5

CONCLUSIONS, RECOMMENDATIONS, AND IMPLICATIONS

The previous chapter provided the results obtained from the statistical analyses conducted for the four null hypotheses formulated for this study. School achievement and value-added scores defined the accountability matrix. Teacher perceptions were measured by the Job Satisfaction Survey ([JSS]; Spector, 1997) to determine their job satisfaction. Teacher perceptions were measured by the Organizational Health Inventory-Middle ([OHI-M]; Hoy, 2003; Hoy & Sabo, 1998) to determine the organizational health of the school. Statistical analyses were conducted using an ANOVA to determine if any significant differences existed between the accountability matrix and JSS (including JSS facets) and OHI-M (including OHI-M dimensions). A regression analysis was conducted to determine if any relationships existed between OHI-M total and OHI-M dimensions and between JSS total and JSS facets. Statistical analyses were conducted using an ANOVA to determine if any significant differences existed between the demographic variables and OHI-M total, OHI-M dimensions, JSS total, and JSS facets. This chapter offers findings, concerns, conclusions, recommendations, and implications made based on those results.

Discussion of the Findings

This section discusses the findings of this study, beginning with a demographic profile of the participants. It then proceeds with any differences between JSS and accountability as measured by achievement and value-added school scores, differences between the OHI-M and accountability as measured by achievement and value-added

school scores, determination of whether a relationship existed between the JSS and OHI-M, and indication of demographic differences between the JSS as well as OHI-M. Generalizability concerns and lessons learned close out the section.

Demographic Profile of the Subjects

The 177 middle school teachers who participated in the study included eight schools (clusters) representing a stratified, purposive sample from each quadrant of the accountability matrix. The four quadrants of the accountability matrix included the following: high achievement and high value-added (Quadrant I), high achievement and low value-added (Quadrant II), low achievement and high value-added (Quadrant III), and low achievement and low value-added (Quadrant IV). The accountability matrix allowed for comparisons between schools from different levels of school performance to determine if any significant difference existed in job satisfaction and/or the perceptions of the organizational health of the school.

The 177 middle school teachers who participated in the study included 72.3% women and 27.7% men. An overwhelming majority of participants were white (95.5%) with the remaining 4.5% of the participants representing African American, Hispanic, or other ethnic groups. The majority of the participants (68.9%) taught one of the core subjects: math (19.8%), language arts (27.7%), social studies (10.7%), and science (10.7%), with the remaining 31.1% of the participants teaching something other than the core subjects. The majority of the participants held an advanced degree (75.2%). The overall breakdown is as follows: master's degree (48.6%), education specialist degree (26%), and doctoral degree (0.6%); the remaining 24.9% had earned a bachelor's degree.

The majority of the teachers (44.1%) had 6-15 years of experience, followed by 16-25 years of experience (20.9%), then 26 years or more (16.9%), 2-5 years of experience (14.7%), and last, less than 2 years (3.4%).

Job Satisfaction

The ANOVA was selected to determine if any significant differences existed between teacher job satisfaction and accountability as measured by achievement and value-added scores. No significant difference was revealed between achievement and job satisfaction; however a significant difference was determined between value-added scores and job satisfaction ($p < .05$). Participants from schools with higher value-added scores reported lower levels of satisfaction and schools with lower value-added scores reported higher levels of satisfaction. The overall job satisfaction rating determined using the JSS represented an ambivalent response (136.4) to teacher satisfaction. Dinham and Scott (2000) found that the greatest source for teacher satisfaction was student achievement; therefore, the findings of this research support that teachers are satisfied with their overall student achievement. No substantive research was found concerning the impact between value-added scores and teacher satisfaction, but the findings of this study indicated a significant difference existed between value-added scores and job satisfaction.

When considering the JSS facets, teachers responded with dissatisfaction to Pay (10.6), Operating Conditions (11.3), and Promotion (12.0). This was consistent with the research findings of Woods and Weasmer (2008) that suggested that a major cause of dissatisfaction was the lack of authority of teachers to make curriculum decisions, and this research revealed that teachers were dissatisfied with the operating conditions of the

school. The MetLife Survey of the American Teacher (MetLife, 2012) reported that 65% of teachers believed their salaries were too low, and this was consistent with the findings of this research in which the greatest dissatisfaction reported by respondents was Pay (average score of 10.6).

When interpreting individual schools of the accountability matrix, teachers from two schools scored at the higher levels of satisfaction: School 240 (153.5 total satisfaction) and School 410 (152.6 total satisfaction). School 240 has had a long tradition of academic excellence, but has had a difficult time reaching positive value-added scores. School 410 is a small rural school with the least amount of teachers and students, but has had negative achievement and value-added scores. Therefore, no pattern between achievement and value-added scores were revealed when considering the different levels of effectiveness. As a point of interest, teachers from both schools with an overall high satisfaction score had the same satisfaction level for the subscales of Supervision, Benefits, Contingent Rewards, Coworkers, Nature of Work, and Communication. Teachers from School 240 were least satisfied with Operating Conditions; recently, that particular school system had to reconfigure grade levels in each school to eliminate overcrowding. Teachers from School 410 were in a district that pays less than the surrounding districts, and overall, most teachers were dissatisfied on the JSS facet of Pay.

According to MetLife (2012), only 44% of teachers felt very satisfied, thereby representing a 15-point drop from 59% in 2008. Marlow (1996) stated that 44% of teachers surveyed considered leaving the teaching profession, and 18% of them were

seriously considering leaving the teaching profession. The results from this study support this statistic with 66.7% of the participants responding that they had thought about leaving the teaching profession; 59.3% of the participants responded they would leave the teaching profession if given the opportunity. The results are consistent with several articles that predicted that an estimated 30 to 50% of teachers would resign within three to seven years of teaching (Bolich, 2001; Byrne, 1998; Merler & Charles, 2008; NCES, 2007a; Stansbury & Zimmerman, 2002; Wilkins-Cantor, Edwards, & Young, 2002; Woods & Weasmer, 2004).

Organizational Health

The ANOVA was selected to determine if any significant differences existed between organizational health and schools within the accountability matrix achievement and value-added school scores. Teachers revealed a significant difference between organizational health and achievement ($p < .005$) as well as the value-added scores ($p < .005$). Participants from high value-added schools reported lower organizational health scores demonstrating an inverse impact between value-added scores and overall organizational health. This research supported the findings of Henderson (2007), who found an inverse relationship between value-added scores and organizational health. Participants from high achievement schools reported higher organizational health scores demonstrating a positive impact between achievement and overall organizational health. Research demonstrated that a correlation existed between organizational health and academic achievement (Birdin, 1992; Bulach, Malone, & Castleman, 1995; Brown et al.; Browne; Goddard et al.; Culpepper, 1993; Green, 2000; Henderson, 2007; Henderson et

al., Hill, 2003; Hoy & Hannum; Hoy et al.; Montoya & Brown, 1990; Smith; Lindahl, 2009; Valente, Zigarm et al., 1991).

Additionally, numerous studies documented that those schools with better organizational health had higher achievement scores (Bossert, 1988; Brookover, Beady, Flood, Schwitzer, & Wisenbake, 1977, 1979; Frieberg, 1998; Fullan & Hargreaves, 1996; Goddard et al.; Henderson et al., Lindahl, 2009; MSU, 2004; Schweitzer & Wisenbaker, 1979; Strahan, Carlone, Horn, Dallas, & Ware, 2003). This research supports the findings that schools with a high organizational health had higher achievement scores: one school above average and three schools with a high organizational health in the quadrants with high achievement scores. Only one school with low achievement scores scored a high total organizational health; the explanation for this school falls outside the scope of this research. This study revealed that the higher the organizational health of the school, the higher are their achievement scores. A significant difference existed between value-added scores and the total organizational health, but 75% of the schools with a low value-added score still maintained a high organizational health. Therefore, this research reflected that teachers must place more credibility on the achievement scores gained by the schools than the value-added scores determined for the school.

When considering the individual dimensions of organizational health, the ANOVA revealed a significant difference between value-added scores and teacher perceptions of the following health dimensions: Collegial Leadership ($p < .05$), Principal Influence ($p < .05$), Resource Support ($p < .05$) and Academic Emphasis ($p < .05$). Additionally, a significant difference was found between academic achievement and

teacher perceptions of the following organizational health dimensions: Collegial Leadership ($p < .05$), Principal Influence ($p < .05$), Teacher Affiliation ($p < .05$), and Academic Emphasis ($p < .05$). A significant difference was discovered for teacher perceptions of Academic Emphasis with both value-added and achievement scores. Several studies supported that higher Academic Emphasis resulted in higher achievement scores (Goddard et al., 2000; Henderson et al., 2005; Hoy & Sabo, 1998; Hoy, Tarter, & Bliss, 1990; Hoy, Tarter, & Kottkamp, 1991; Sumner, 2006). The research has demonstrated that schools with clear expectations in the area of academic achievement will have higher scores on achievement scores.

Relationship between Job Satisfaction and Organizational Health

Null hypothesis 3 focused on the relationship between JSS and the OHI-M. This null hypothesis was rejected because a significant relationship was revealed between job satisfaction and organizational health. A significant relationship was discovered between the OHI-M total and the following JSS facets: Supervision ($p < .05$), Coworkers ($p < .05$), Nature of Work ($p < .05$), and Communication ($p < .05$). Additionally, a significant relationship was found between the JSS total and the following OHI-M dimensions: Institutional Integrity ($p < .05$), Collegial Leadership ($p < .05$), Resource Support ($p < .05$), and Academic Emphasis ($p < .05$). Taylor and Tashakkori (1995) found a positive school climate (organizational health) was related to an increase in job satisfaction. In essence, organizational health was identified as a predictor of teacher satisfaction and teacher satisfaction as a predictor of the organizational health of the school.

Demographic Differences with Job Satisfaction and Organizational Health

The differences among the demographic variables (gender, ethnicity, subject, degree level, and experience) and the overall OHI, as well as each of its seven dimensions, were analyzed for H₀₄ along with the overall JSS and each of the nine facets of job satisfaction. No significant differences were found between the JSS total and the demographic variables. When considering the individual job facets, a significant difference was found between the following facets: ethnicity with Operational Conditions ($p = .013$); degree level with Pay ($p = .044$); and experience with Pay ($p = .029$) and promotion ($p = .030$). A significant difference was revealed between the OHI-M total and the perceptions of teachers with different levels of experience ($p = .014$), but no significant difference was discovered between the OHI-M total and the remaining demographic variables. However, when considering the individual organizational health dimensions, a significant difference was found between the following dimensions: gender with Principal Influence ($p = .009$); degree level with Teacher Affiliation ($p = .021$); and experience with Resource Support ($p = .013$) and Academic Achievement ($p = .000$). The null hypothesis was mostly affirmed for the overall OHI-M and JSS; however, it was rejected for specific job facets and/or organizational health dimensions.

Concerns about the Findings

There are circumstances that may or may not have affected the results of this study. This study is considered to be reliable and valid, but various concerns have been identified that may alter the credibility of the findings:

1. This study only had two schools from each quadrant of the accountability matrix. A higher number of participating schools would have likely

provided more reliability and credibility to the findings. Tennessee teachers were under increased pressure during the 2011-2012 school year because of the new evaluation requirements initiated at that time. Many districts, schools, and even principals refused to participate in this study because of the demanding requirements of this new evaluation system.

2. All of the participants were from middle schools in Eastern Tennessee. Therefore, findings in this study may or may not be generalizable to the perceptions of teachers across the entire state.
3. The majority of the participants were white (95.5%). Even though the majority of teachers across Tennessee are white, the findings from this study may or may not be representative of an ethnically diverse population of teachers.
4. This study had four suburban schools, three rural schools, and only one urban school to participate. The findings may or may not be representative of teachers in an urban school.
5. Female teachers represented 72% of the participants. Even though this may represent teachers across Tennessee, the findings may or may not be generalizable to all male teachers in other school systems.
6. The majority of participants taught core academic classes (68.9%). However, only 10.7% of the teachers taught either science or social studies, and 31.1% of the participants taught something outside the core academic classes. Similar studies may have a different distribution of teachers across subjects taught, and this study may or may not be representative of all schools with distinct distributions of teachers.
7. The majority of participants had either a master's degree (48.6%) or an ED.S. degree (26%), with only 24.9% of the participants with a bachelor's degree and only one with a doctorate degree. This may or may not be representative of the educational level of teachers across Tennessee middle schools.
8. This study only had 3.4% of participants with less than two years of experience and only 16.9% of participants with more than 26 years of experience. The sample may or may not be representative of teaching experience across Tennessee middle schools.
9. This study was limited to the sampling process chosen by the researcher requiring a purposive and equal sample of schools from each of the accountability matrix quadrants.

10. Lastly, all aspects that could impact the satisfaction of teachers and the organizational health of the school were not controlled in this study.

Conclusions of the Study

This study was designed to determine if any significant differences existed between school accountability as measured by achievement and value-added scores and job satisfaction including the facets of job satisfaction. In addition, the study explored if any significant differences existed between school accountability as measured by achievement and value-added scores and organizational health including the dimensions of organizational health. Additionally, a goal of this study was to determine if a significant relationship existed between the dimensions and total organizational health of the school with the facets and total teacher satisfaction. The study concluded with a determination if any significant differences existed between the demographic variables (gender, ethnicity, subject, degree level, and experience) and teacher satisfaction along with school organizational health. The instruments used in this assessment were the JSS and the OHI-M – both valid and reliable surveys.

This research revealed several conclusions about accountability as measured by achievement scores and value-added scores, job satisfaction, and organizational health. No significant difference was found between achievement and teacher job satisfaction, but a significant difference was revealed between value-added scores and teacher job satisfaction. Teachers from schools with lower value-added scores had higher job satisfaction scores – an inverse impact. Additionally, a significant difference was revealed between achievement and value-added scores with the school's organizational health. Teachers from schools with higher achievement scores had higher organizational

health scores, but schools with high value-added scores had lower organizational health scores – another inverse impact. This research supported the findings of Henderson (2007) that an inverse relationship existed between value-added scores and the school's organizational health.

Not surprising, a strong relationship was found between job satisfaction and organizational health. The organizational health dimension of Academic Emphasis was found to be statistically significant with achievement and value-added scores. Research demonstrated that a correlation existed between Academic Achievement and Organizational Health (Birdin, 1992; Bulach, Malone, & Castleman, 1995; Brown et al.; Browne; Goddard et al.; Culpepper, 1993; Green, 2000; Henderson, 2007; Henderson et al.; Hill, 2003; Hoy & Hannum; Hoy et al.; Montoya & Brown, 1990; Smith; Lindahl, 2009; Valente, Zigarm et al., 1991), and research supported that higher Academic Emphasis resulted in higher achievement scores (Goddard et al., 2000; Henderson et al.; Hoy & Sabo, 1998; Hoy, Tarter, & Bliss, 1990; Hoy, Tarter, & Kottkamp, 1991; Sumner, 2006). This study confirms that schools with a higher organizational score and that placed more emphasis on academic achievement resulted in higher achievement scores.

This research substantiates the MetLife (2012) results that 65% of teachers believed their salaries were too low, and this was supported by the current finding that the greatest dissatisfaction of respondents was Pay (10.6). Additionally, Marlow (1996) reported that 44% of teachers surveyed considered leaving the teaching profession. In the current study, 66.7% indicated they had thought about leaving the profession, and 59.3% would leave the teaching profession if given the opportunity.

Generalizability of the Findings

Quantitative research lends itself to question the generalizability of the results to a larger population (Gay, Mills, & Airasian, 2009). The sample size and population selection technique may hinder or help the application of the study's results to the entire population. This study was limited to selected Tennessee middle schools, but was consistent with several research findings. The sampling technique was purposive, but accommodated the necessity to have a proportionally stratified sample across the accountability matrix. To participate in the study, schools had to meet the requirements established for the determination of the accountability matrix. Although schools were contacted across the state, only schools from East Tennessee decided to participate in this study. The results are more reflective of teachers from East Tennessee middle schools. Further research may be needed to confirm the findings and to strengthen the generalizability of the results.

Recommendations of the Study

As suggested by Henderson, (2007), more research must be conducted to determine the relationship between organizational health and value-added scores, but should be expanded to student achievement. This study creates a good foundation for future research to build upon the relationships that exist between job satisfaction, organizational health, and accountability, with the following recommendations taken into consideration in the design and implementation of any further investigation:

1. A longitudinal study of job satisfaction, organizational health, and academic achievement as measured by achievement and value-added scores;
2. An expanded study across Tennessee including more schools from each quadrant of the accountability matrix to validate the findings from this study;

3. A mixed-method research approach making connections between the quantitative statistics with qualitative analysis to determine a more in-depth analysis of the effect of low- and high-performing schools as measured by achievement and value-added scores;
4. A qualitative measure of job satisfaction within the schools leading to a more in-depth understanding of the causes of satisfaction and dissatisfaction in low- and high-performing schools as measured by achievement and value-added scores;
5. Likewise, a qualitative measure of organizational health within the schools providing a more in-depth understanding of the factors that affect the organizational health of the school in low- and high-performing schools as measured by achievement and value-added scores;
6. A comparative study between elementary, middle, and high schools regarding job satisfaction and organizational health and determination of whether accountability as measured by state testing has a different effect on each of these schools;
7. A comparative study between rural, suburban, and urban schools to determine if any differences exist between job satisfaction, organizational health, and accountability as measured by achievement and value-added scores; and
8. A comparative study between small, medium, and large schools to determine if any differences exist between job satisfaction, organizational health, and accountability as measured by achievement and value-added scores.

The Study in Retrospect

While this study was conducted to the researcher's best ability, there are several changes that could be made to increase participation and strengthen the results of this study. In retrospect, the following changes are recommended to help to strengthen the research process of a replicated study:

1. The data collection process required the permission of the school district on many occasions and the school principal on all occasions. If the researcher could have found a direct connection to the participants, this would have increased participation. However, this study required participation of schools to determine an overall school organizational health and a total job satisfaction of the teachers.

2. Initially, all surveys were administered online, and this was highly dependent on the principals forwarding information to his/her teachers. This could be corrected with a direct connection to the participants; however the necessity to secure an adequate sample of teachers from each school required principal participation. Later, the researcher used paper copies of the surveys for distribution during a faculty meeting (at times distributed and collected by an employee within the school). The paper copies proved much more effective than the online survey. Online surveys would be extremely effective if the researcher had direct contact with the participants; otherwise, trying to get an ample sample from a specific school would be accomplished much more effectively by distributing paper copies to the teachers directly at a faculty meeting.
3. The determination of school accountability was conducted by analyzing school achievement and value-added scores from one year. A researcher could use the state standard for identifying low-, average-, and high-performing schools to determine the effect of accountability on teacher job satisfaction and school organizational health. If the researcher wanted to launch an online survey to include any teacher across the state or even the nation, a question could be asked about the school's current accountability status. However, it is important to keep in mind that different states have different determinations and labels for low-, average-, and high-performing schools.
4. It may help to select a time period for data collection that is noncontroversial. As already mentioned, Tennessee decided to change the evaluation system for teachers beginning with the 2011-2012 school year. In hindsight, the researcher would have asked some questions concerning the effect the new evaluation process had on the satisfaction of teachers and the organizational health of teachers. Indirectly, with the inclusion of the accountability measures of achievement and value-added scores; one of the major components of the evaluation process was included in this study. Collectively, both scores could account for up to 50% of the teacher's evaluation score.

Implications of the Study

With the recent inclusion of value-added scores and achievement scores as part of the new evaluation system for Tennessee teachers, this study is extremely relevant in education. With the understanding that a direct relationship between job satisfaction and organizational health was found, and that schools with higher organizational health scores resulted in higher achievement, but lower value-added scores; then teachers with higher levels of satisfaction and schools with higher levels of organizational health are likely to

provide opportunities for teachers to achieve higher achievement scores, but lower value-added scores. The value-added scores have had the greatest impact on the teacher's evaluation score from the state. In retrospect, a study should be completed to determine the relationship between job satisfaction, organizational health, and teacher evaluation.

Summary of Chapter 5

This study was conducted to determine if any significant differences existed between school accountability (as measured by achievement and value-added scores) and job satisfaction as well as organizational health. The study was conducted to determine if a relationship existed between job satisfaction and organizational health. Additionally, the study was conducted to determine if any significant differences existed between demographic variables (gender, ethnicity, subject, degree level, and experience) and organizational health dimensions (Institutional Integrity, Collegial Leadership, Principal Influence, Resource Support, Teacher Affiliation, and Academic Emphasis) or job satisfaction facets (Pay, Promotion, Supervision, Benefits, Contingent Rewards, Operating Conditions, Coworkers, Nature of Work, and Communication).

The four null hypotheses guided the testing of differences and relationships among accountability (achievement and value-added scores), job satisfaction, and organizational health. In determining a significant difference or relationship, the researcher was validating that the findings were reliable – that the difference or relationship was not created by chance. This study yielded the following findings: (1) a significant difference existed between value-added scores and job satisfaction demonstrating an inverse impact between them; (2) a significant difference existed

between achievement and value-added scores, with organizational health demonstrating a positive impact between organizational health and student achievement, but an inverse impact between organizational health and value-added scores; (3) a significant relationship existed between job satisfaction and organizational health; and (4) no significant differences were found between the demographic variables and the overall job satisfaction scores, but a significant difference was found between experience level and the organizational health index score.

The chapter discussed a summary of the findings, conclusions, recommendations, and implications generated by this study. In conclusion, this research established the foundation for a more in-depth analysis of the relationships that may exist between job satisfaction and organizational health. Perhaps of greater interest, this study necessitates that future research be conducted on the statistical significance of the relationships that may or may not exist between the demands of school accountability on organizational health of the school and teacher job satisfaction.

Epilogue: A Reflection on the Study

After assimilating the results of this study, it seems necessary to reflect on the findings to provide a little more perspective for readers. Study findings indicate that, as teacher satisfaction and organizational health increase, student achievement also increases. Research suggests an improvement in student achievement accompanies the implementation of a stronger academic emphasis. In layman's terms, if the school administrators focus on satisfying teachers, the organizational health of the school tends to benefit, and the students there are more likely to perform better on standardized tests.

The data support this observation as shown by the statistically significant relationship found to exist between job satisfaction and organizational health. Jim Kirk, principal of Alcoa Middle School and my principal, has always said, “The most important people in the school are the teachers.” This means that, if teachers are kept satisfied, they will be more effective, and their students will learn more in the classroom. In an era of state and federal mandates requiring schools to meet the goal of 100% student proficiency in math and reading, it becomes paramount for administrators to strive to ensure teachers’ job satisfaction.

What may be more interesting, though confusing, are the findings related to job satisfaction, organizational health, and value-added scores. Conventional thinking leads one to believe that higher job satisfaction fosters better school organizational health; in turn, improved organizational health positively impacts student achievement, thereby resulting in higher value-added scores. The dilemma arises with the *inverse* effect of higher value-added scores on job satisfaction and organizational health as indicated by this study’s results; this apparent contradiction is difficult to explain from the current study itself and the descriptive, quantitative approach taken. A mixed-method (quantitative/qualitative) study may have provided more insight into this relationship.

Nevertheless, one possible explanation for this counter-intuitive finding can be postulated by taking into consideration a variable outside the realm of this study: the evaluation of teachers in Tennessee. To explore this further, it is important to gain an understanding of recent events in Tennessee. The state has placed great emphasis on value-added scores. In practical terms, 35% of a teacher’s evaluation is required to be

derived from the effectiveness in achieving positive value-added scores on the part of either the individual teacher or, in the case of teachers of non-core subjects, the school overall. From this perspective, one may conclude that these recent events have contributed to an adverse effect on student success in the classroom. In fact, this value-added requirement has created a noticeable rift within the Tennessee educational system as demonstrated in newspaper reports on findings from the State Collaborative on Reforming Education (SCORE) survey of teacher perceptions concerning the new Tennessee evaluation system. Additionally, confusion exists among teachers, administrators, superintendents, and even professors across Tennessee about the calculations of TVAAS (value-added scores). Really, only Dr. Sanders and the individuals at the SAS Institute completely understand the complex, statistical methodology employed to determine those scores.

This research reveals that teachers from schools with high value-added scores tend to respond with lower levels of satisfaction and less favorable perceptions of the school's organizational health. One factor that may influence this result can be the controversy over the value-added scores or in their use as a measure of the effectiveness of the teacher. If so much pressure exists on teachers to achieve value-added scores (thus reducing the satisfaction of teachers and creating a decline in the school organizational health), then this definitely presents the possibility of an adverse effect on the educational system that state policy-makers probably have not anticipated. Although it is reasonable to think that our state legislature desires to put policies in place to *strengthen* the satisfaction of teachers and school organizational health and to foster an environment

where students are learning more in the classroom, in actuality, its recent adoption of the value-added scores as a key component of the Tennessee teacher evaluation system has instead served to *compound* this problem of increased pressure on teachers.

The evaluation scores (1 to 5, with 5 representing highest effectiveness) are now being made available to teachers. Teachers of core subjects (i.e., math, language arts/reading, science, and social studies) receive scores based upon their own value-added scores and computed on a three-year average of these scores. Therefore, hypothetically, if a teacher has a record of a low value-added score of -12 in 2009, a better score of -6 in 2010, but a great score of +6 in 2011, then his/her three-year average is -4. This teacher will probably receive a 1 on his/her evaluation under the reporting category of TVAAS (value-added) scores indicating that he/she is an ineffective teacher. In reality, this teacher has made great strides in improving student scores during the three-year period going from -12 to +6 value-added score in just three years. Additionally, this teacher has certainly demonstrated substantive progress in effectiveness in the classroom for the most recent year, but this will be completely overlooked in the reporting of the score. If the principal does not understand the numbers, then he/she may believe this teacher to be ineffective at teaching the curriculum for that subject.

Even more debatable, individuals who teach a subject outside the core academics are forced to accept the school's composite value-added score for 35% of their evaluation score. Non-core teachers (e.g., librarians and teachers of technology, art, physical education, etc.) are being held accountable for all students in that school, regardless of

whether they teach them in the classroom. From this standpoint, it does not seem logical for the state to use value-added scores as 35% of a teacher's overall evaluation score.

For these reasons, this researcher strongly recommends that principals, administrators, and policy-makers alike look beyond the numbers (i.e., value-added scores) to determine the effectiveness of the teacher. In particular, school principals must be proactive within the school to: (1) make the teachers the most important individuals in the school, (2) get to know their students and ask them who are the effective teachers in the classroom, (3) know their teachers and what they are teaching in the classroom, and (4) visit students and teachers in the classroom. This will help to resolve what has become a true dilemma in the Tennessee educational system.

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APPENDIXES

Appendix A: Job Satisfaction Survey (JSS)

and

Letter of Permission to Use the Instrument

JOB SATISFACTION SURVEY

Copyright by Paul E. Spector, Department of Psychology, University of South Florida (1994)

	PLEASE CIRCLE THE ONE NUMBER FOR EACH QUESTION THAT COMES CLOSEST TO REFLECTING YOUR OPINON	Disagree Very much	Disagree Moderately	Disagree Slightly	Agree Slightly	Agree Moderately	Agree Very Much
1	I feel I am being paid a fair amount for the work I do.	1	2	3	4	5	6
2	There is really too little chance for promotion on my job	1	2	3	4	5	6
3	My Supervisor is quite competent in doing his/her job.	1	2	3	4	5	6
4	I am not satisfied with the benefits I receive.	1	2	3	4	5	6
5	When I do a good job, I receive the recognition for it that I should receive.	1	2	3	4	5	6
6	Many of our rules and procedures make doing a good job difficult.	1	2	3	4	5	6
7	I like the people I work with.	1	2	3	4	5	6
8	I sometimes feel my job is meaningless.	1	2	3	4	5	6
9	Communications seem good within this organization.	1	2	3	4	5	6
10	Raises are to few and far between.	1	2	3	4	5	6
11	Those who do well on the job stand a fair chance of being promoted.	1	2	3	4	5	6
12	My supervisor is unfair to me.	1	2	3	4	5	6
13	The benefits we receive are as good as most other organizations offer.	1	2	3	4	5	6
14	I do not feel that the work I do is appreciated.	1	2	3	4	5	6
15	My efforts to do a good job are seldom blocked by red tape.	1	2	3	4	5	6
16	I find I have to work harder at my job because of the incompetence of people I work with	1	2	3	4	5	6
17	I like doing the things I do at work.	1	2	3	4	5	6
18	The goals of this organization are not clear to me.	1	2	3	4	5	6

	PLEASE CIRCLE THE ONE NUMBER FOR EACH QUESTION THAT COMES CLOSEST TO REFLECTING YOUR OPINON	Disagree Very much	Disagree Moderately	Disagree Slightly	Agree Slightly	Agree Moderately	Agree Very Much
19	I feel unappreciated by the organization when I think about what they pay me.	1	2	3	4	5	6
20	People get ahead as fast here as they do in other places.	1	2	3	4	5	6
21	My supervisor shows too little interest in the feelings of subordinates.	1	2	3	4	5	6
22	The benefit package we have is equitable.	1	2	3	4	5	6
23	There are few rewards for those who work here.	1	2	3	4	5	6
24	I have too much to do at work.	1	2	3	4	5	6
25	I enjoy my coworkers.	1	2	3	4	5	6
26	I often fell that I do not know what is going on with the organization.	1	2	3	4	5	6
27	I feel a sense of pride in doing my job.	1	2	3	4	5	6
28	I feel satisfied with my chances for salary increases.	1	2	3	4	5	6
29	There are benefits we do not have which we should have.	1	2	3	4	5	6
30	I like my supervisor.	1	2	3	4	5	6
31	I have too much paperwork.	1	2	3	4	5	6
32	I don't feel my efforts are rewarded the way they should be.	1	2	3	4	5	6
33	I am satisfied with my chances for promotion.	1	2	3	4	5	6
34	There is too much bickering and fighting at work.	1	2	3	4	5	6
35	My job is enjoyable.	1	2	3	4	5	6
36	Work assignments are not fully explained.	1	2	3	4	5	6

Hello Dr. Spector,

I am a doctoral student at The University of Tennessee. I have successfully completed my coursework and have passed the comprehensive exam. I am currently working on my prospectus for my dissertation, a quantitative study of the relationship between the accountability movement (state and federal mandates), organizational health, and job satisfaction. I would like to use your Job Satisfaction Survey (JSS) to measure the job satisfaction of teachers in at least 20 schools across Tennessee. I would like to collect the survey data via an online version of your survey. In doing so, I agree not to change any questions and will preserve the integrity of your survey instrument. The online survey will allow me to survey schools across Tennessee. In exchange, I agree to send you my results concerning teacher job satisfaction across Tennessee.

The purpose of this statewide quantitative study is to examine the relationship between teacher job satisfaction and teacher's perceptions of the organizational health of the school. Additionally, the relationship between school's organizational health and accountability as well as teacher job satisfaction and accountability was examined. A secondary purpose is to examine the relationship between job satisfaction, organizational health, school accountability, and demographic variables as reported by teacher respondents.

If you have any questions and/or concerns, please allow me the opportunity to explain via email (lfox@alcoaschools.net) or telephone (865.659.2622). I will need a written statement granting me permission to use your instrument and to use your instrument as an online survey.

Thanks,

Lon Fox

Response from Dr. Spector granting permission to use JSS as an online survey (2/2/10)

Dear Lon:

You have my permission to use the JSS in your research in both paper and online formats.

Best

Appendix B: Organizational Health Inventory-Middle (OHI-M) and
Letter of Permission to Use the Instrument

OHI-M

DIRECTIONS: THE FOLLOWING ARE STATEMENTS ABOUT YOUR SCHOOL. PLEASE INDICATE THE EXTENT TO WHICH EACH STATEMENT CHARACTERIZES YOUR SCHOOL BY CIRCLING THE APPROPRIATE RESPONSE.

R0=RARELY OCCURS SO=SOMETIMES OCCURS O=OFTEN OCCURS VFO=VERY FREQUENTLY OCCURS

1. The principal explores all sides of topics and admits that other options exist.....	RO	SO	O	VFO
2. Students make provisions to acquire extra help from teachers.....	RO	SO	O	VFO
3. The principal gets what he or she asks for from superiors.....	RO	SO	O	VFO
4. The principal discusses classroom issues with teachers.....	RO	SO	O	VFO
5. The principal accepts questions without appearing to snub or quash the teacher....	RO	SO	O	VFO
6. Extra materials are available if requested.....	RO	SO	O	VFO
7. Students neglect to complete homework.....	RO	SO	O	VFO
8. The school is vulnerable to outside pressures.....	RO	SO	O	VFO
9. The principal is able to influence the actions of his or her superiors.....	RO	SO	O	VFO
10. The principal treats all faculty members as his or her equal.....	RO	SO	O	VFO
11. Teachers are provided with adequate materials for their classrooms.....	RO	SO	O	VFO
12. Teachers in this school like each other.....	RO	SO	OO	VFO
13. Community demands are accepted even when they are not consistent with the educational program.....	RO	SO	O	VFO
14. The principal lets faculty know what is expected of them.....	RO	SO	O	VFO
15. Teachers receive necessary classroom supplies.....	RO	SO	O	VFO
16. Students respect others who get good grades.....	RO	SO	O	VFO
17. Good grades are important to the students of this school.....	RO	SO	O	VFO
18. Teachers feel pressure from the community.....	RO	SO	O	VFO
19. The principal's recommendations are given serious consideration by his or her superiors.....	RO	SO	O	VFO
20. Supplementary materials are available for classroom use.....	RO	SO	O	VFO
21. Teachers exhibit friendliness to each other.....	RO	SO	O	VFO
22. Students seek extra work so they can get good grades.....	RO	SO	O	VFO
23. Select citizen groups are influential with the board.....	RO	SO	O	VFO

24. The principals looks out for the personal welfare of faculty members.....	RO	SO	O	VFO
25. The school is open to the whims of the public.....	RO	SO	O	VFO
26. A few vocal parents can change school policy.....	RO	SO	O	VFO
27. Students try hard to improve on previous work.....	RO	SO	O	VFO
28. Teachers accomplish their jobs with enthusiasm.....	RO	SO	O	VFO
29. The learning environment is orderly and serious.....	RO	SO	O	VFO
30. The principal is friendly and approachable.....	RO	SO	O	VFO
31. Teachers show commitment to their students.....	RO	SO	O	VFO
32. Teachers are indifferent to each other.....	RO	SO	O	VFO
33. Teachers are protected from unreasonable community and parental demands.....	RO	SO	O	VFO
34. The principal is able to work well with the superintendent.....	RO	SO	O	VFO
35. The principal is willing to make changes.....	RO	SO	O	VFO
36. Teachers have access to needed instructional materials.....	RO	SO	O	VFO
37. Teachers in this school are cool and aloof to each other.....	RO	SO	O	VFO
38. Teachers in this school believe that their students have the ability to achieve academically.....	RO	SO	O	VFO
39. The principal is understanding when personal concerns cause teachers to arrive late or leave early.....	RO	SO	O	VFO
40. Our school gets its fair share of resources from the district.....	RO	SO	O	VFO
41. The principal is rebuffed by the superintendent.....	RO	SO	O	VFO
42. Teachers volunteer to help each other.....	RO	SO	O	VFO
43. The principal is effective in securing the superintendent's approval for new programs or activities.....	RO	SO	O	VFO
44. Academically oriented students in this school are ridiculed by their peers.....	RO	SO	O	VFO
45. Teachers do favors for each other.....	RO	SO	O	VFO

Hello Dr. Hoy,

I am a doctoral student at The University of Tennessee. I have successfully completed my coursework and have passed the comprehensive exam. I am currently working on my prospectus for my dissertation, a quantitative study of the relationship between the accountability movement (state and federal mandates), job satisfaction, and organizational health. I would like to use the Organizational Health Inventory-Middle instrument to measure the organizational health of 20 middle schools across Tennessee. I would like to collect the survey data via an online version of your survey. In doing so, I agree not to change any questions and will preserve the integrity of your survey instrument. The online survey will allow me to survey schools across Tennessee. In exchange, I agree to send you my results concerning the organizational health of schools across Tennessee.

The purpose of this statewide quantitative study is to examine the relationship between teacher job satisfaction and teacher's perceptions of the organizational health of the school. Additionally, the relationship between school's organizational health and accountability as well as teacher job satisfaction and accountability was examined. A secondary purpose is to examine the relationship between job satisfaction, organizational health, school accountability, and demographic variables as reported by teacher respondents.

If you have any questions and/or concerns, please allow me the opportunity to explain via email (lfox@alcoaschools.net) or telephone (865.659.2622). I will need a written statement granting me permission to use your instrument and to use your instrument as an online survey.

Thanks,

Lon Fox

To: Lon Fox

Response: Granted permission to use OHI-M online 2/2/10

Fr: Wayne K. Hoy

Dear Lon--

You have my permission to use the OHI-M in your dissertation research, using it online to collect your data. I look forward to your results.

Best wishes.

Wayne

Wayne K. Hoy

Fawcett Professor of

Education Administration

hoy.16@osu.edu

www.waynekhoy.com

Appendix C: Demographic Survey

DEMOGRAPHIC SURVEY

PLEASE CHECK THE ANSWERS
THAT ARE APPROPRIATE TO YOUR SITUATION

1. What is your gender?

☐ Male

☐ Female

2. What ethnicity best describes you?

☐ White

☐ African American

☐ Hispanic

☐ Asian-Pacific Islander

☐ Native American

☐ Other

3. What subject do you teach?

☐ Math

☐ Reading / Language Arts

☐ Science

☐ Social Studies

4. What is your highest degree level?

☐ BA/BS

☐ MA/MS

☐ EdS (Educational Specialist)

☐ Doctorate

☐ Other

5. How many years have you been teaching?

☐ Less than 2 years

☐ 2 to 5 years

☐ 6 to 15 years

☐ 16 to 25 years

☐ 26 years or more

6. During the past year, have you ever thought about leaving the teaching profession?

☐ Yes

☐ No

7. If given the opportunity would you leave the teaching profession?

☐ Yes

☐ No

8. During the past year, has your school been placed on the list for not meeting AYP?

☐ Yes

☐ No

Appendix D: Sample Letter of Permission from School Districts

Date: _____

To Whom It May Concern:

Permission to conduct research is hereby granted for the following project:

Study Title: *Relationship between accountability (state and federal mandates), job satisfaction, and organizational health of schools*

Performance Site: K-8 Schools: _____(name of district)_____

Investigators: James Lon Fox, 865.659.2622

lfox@alcoaschools.net

Purpose of Study: The purpose of this statewide quantitative study is to examine the relationship between teacher job satisfaction and teacher's perceptions of the organizational health of the school. Additionally, the relationship between school's organizational health and accountability as well as teacher job satisfaction and accountability is examined. A secondary purpose is to examine the relationship between job satisfaction, organizational health, school accountability, and demographic variables as reported by teacher respondents.

Subject inclusion: Middle school teachers

Privacy: No names or identifying information will be included in any publication. Subject identity will remain confidential unless disclosure is required by law. Summary results for your school and for the entire study are available to the undersigned, upon request.

Permission for this study is granted by the undersigned.

Signature: _____

District Level Position: _____

Appendix E: Web Survey Introduction

Organizational Health and Job Satisfaction Survey

You have been selected to participate in a research study conducted by Lon Fox, a doctoral student at The University of Tennessee. The research study will measure your perceptions and opinions concerning the accountability movement (state and federal mandates on schools), organizational health (school climate, environment, or personality of the school), and job satisfaction (how you feel about your job?). In addition, you will be asked to complete some demographic questions about yourself and/or the school.

By completing this survey, you understand that you are participating in a study of accountability, organizational health, and job satisfaction. You also understand that you will not be identified specifically and that your confidentiality and anonymity is assured. The risks involved with participation in this study are minimal. You will not be asked to disclose your name and your responses will be assigned to a number representing your school. It will take you approximately 35 minutes to complete all the survey information.

You have the right to choose not to participate and may withdraw from the study by ending survey completion at any time without penalty. Results of the study may be published but no names or identifying information will be included in any publication.

Lon Fox is the principal investigator of this study and questions about this research may be directed to him at 865-659-2622 or lfox@alcoaschools.net. Any questions about your rights as a participant in the study should be forwarded to The University of Tennessee Office of Research Compliance at 865-974-3466.

By agreeing to participate in this study, you agree that you are 18 years of age or older and that you freely consent to participate in the study described above.

I wish to participate in this study.

☐ Yes

☐ No

VITA

Lon Fox is an educator, evaluator, and nationally recognized public speaker. A native Tennessean, he has taught at Alcoa Middle School in Blount County for the past 17 years. Committed to lifelong learning, Lon has earned the following degrees – all from The University of Tennessee, Knoxville: Bachelor of Science in Public Administration; Master of Science in Curriculum and Instruction; Certificate in Evaluation from the Educational Psychology and Statistics Department; and Doctor of Philosophy in Educational Leadership and Policy Studies.

In addition to teaching, Lon has been engaged in implementing, advising, and evaluating educational programs for both youth and adults. Among the programs he has evaluated recently are the Academic Enrichment Upward Bound program, Pre-College Upward Bound program, Upward Bound Math and Science Center, and the Tennessee Department of Transportation (TDOT) Executive Leadership Academy.

Strong in assuming leadership responsibilities, Lon takes his role as a *volunteer* as seriously as his paid engagements. Since joining the Tennessee Junior Chamber (Jaycees) and later being elected as the president in 2001, Lon has gone on to serve the U.S. Jaycees as vice president, chief of staff, and 84th president. Recognized as the most requested speaker and trainer for three consecutive years, he traveled to 46 states and six countries as their representative. In 2011, Lon became the president of the Empty Pantry Fund, Inc. – a fund long valued as a tradition in Blount County. Now, under his direction, it has been incorporated as a 501(c)(3) organization that continues to provide food baskets to 1,400 families during the Christmas holiday season each year.