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Walden University

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This is to certify that the doctoral study by

DeAngela Graham

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Walden University
2016

Abstract

Comparison of Classroom Setting and Seventh Grade English Language Arts Tennessee Comprehensive Assessment Program Achievement

by

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MAT, University of Memphis, 2003

BA,Western Illinois University, 2000

Doctoral Study Submitted in Partial Fulfillment

of the Requirements for the Degree of

Doctor of Education

Walden University

February 2016

Abstract

The purpose of this study was to identify an effective strategy to increase English Language Arts (ELA) proficiency in middle schools. This study assessed the outcome of classroom looping in an urban middle school, using Vygotsky's theory of social development as the theoretical framework. Two research questions explored statistical differences between scale scores and number correct scores on the standardized ELA Tennessee Comprehensive Assessment Program (TCAP) in 2 classroom settings. Classroom settings (looping and traditional) served as independent variables, and assessment scores from ELA TCAP assessments were used as the dependent variable. Seventh grade students in a West Tennessee middle school formed the sample for this study, with 94 students from the looping classroom and 94 students from the traditional classroom. A Mann-Whitney U Test indicated no statistically significant difference in performance between groups, with small effect sizes. The non-significant findings of this study lead to further research of ways to improve student proficiency on standardized assessments, resulting in continuous school improvement as a potential solution. The project was presented as a white paper that provided an explanation of the problem identified in this study, a rationale of how continuous school improvement can be used to improve student proficiency, and an action plan for implementating continuous school improvement in failing schools within the district. This project has the potential of leading to positive social change by providing school and district level administrators with a strategy that could improve proficiency on standardized assessments and improve the quality of teaching and learning.

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Dedication

This project is dedicated to my daughter, husband, parents, and grandparents. To my daughter, Cayden, you are the reason for everything that I do and strive to accomplish in life. It is my hope that this work will remind you to always believe that anything is possible. Mommy loves YOU most, always and forever. To my husband, Christopher, completing this journey would not have been possible without your patience, motivation, and support. I am so grateful to have you as a provider and friend. To my parents, Charles and Janice Jones, I would not be the woman, mother, or wife that I am without the love and support that you have given me throughout my life.

This project is also dedicated to the memory of my grandparents Grant Kelley Sr., Ruby Kelley, Elijah Jones Sr., and Neila Jones. I would give anything to see your smiling faces as I celebrate the completion of becoming Dr. Graham.

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I would like to express my deepest gratitude to my committee chair, Dr. Michael Tappler, for his guidance, encouragement, and patience throughout this journey. Thank you for pushing me to stay on course and keep this work at the top of my priority list.

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Finally, I would like to acknowledge the many co-workers, family members, and friends that supported and encouraged me throughout this journey.

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Section 1: The Problem

Introduction

Many students are able to identify basic words by third grade. However, basic word recognition does not indicate reading proficiency (Reardon, Valentino, & Shores, 2012). Reading proficiency requires the ability to read for comprehension by integrating background knowledge and contextual information to make sense of a text (Shihab, 2011). By the standards used in various large-scale literacy assessments, only about a third of middle school students in the United States possess the knowledge-based competencies to "read" in this more comprehensive sense (Reardon, et al., 2012). The challenges of teachers in urban environments become more complex than those of their counterparts in rural and suburban areas due to lower rates of reading proficiency (Curwin, 2010).

Urban area adolescents need mentoring through the development of caring relationships with adults and other students in the school to form a sense of belonging (Slaughter, 2009). In an effort to protect themselves from elements in their lives that create emotional or physical danger, including school failure, urban middle school students often resort to negative coping strategies that can interfere with both social and academic learning (Curwin, 2010). Middle school students experiencing academic failure have more than likely repeated a grade level and often engage in inappropriate behaviors, such as disrupting class, fighting, insubordination, and truancy, out of rebellion for being separated from children of their age (Wynn, 2010).

Grade retention in any subject area has been attributed to poor reading proficiency, which often results from loss of interest and motivation in middle school (Fiester, 2010). Children who live in poverty are more likely to drop out of school (Wynn, 2010). For many students who lack even one supportive role model at home, life gets in the way of following through with educational goals and plans (Slaughter, 2009). Although the No Child Left Behind (NCLB) Act (2002) has focused attention on early reading achievement, less is known about reading in the middle and upper grades (Mariage et al., 2009). More than 50% of urban learners are substantially deficient in reading. For urban African American and Hispanic learners, the rates of deficiency approach 70% (Bursuck & Damer, 2007).

Looping or multi-year teaching could be a potential aid in increasing ELA TCAP proficiency for middle school students. Looping refers to the practice of advancing a teacher from one level to the next along with his or her class staying as a group for 2 or more years. When the rotation is over, students advance to the next grade and the teacher then moves back to the lower grade with a new group of students (Gilliam, 2005). Looping often leads to long-term connections with students. It favors both the child and the teacher and adds stability to children's lives. It provides the necessary time for children to grow and develop at their own rates, as well as time for teachers to get to know each child and family in a personal way (Hitz, Jenlink, & Somers, 2007).

Definition of the Local Problem

Below Proficient English Language Arts Tennessee Comprehensive Assessment Program Levels in Middle School

Reading intervention is a critical element in meeting the demands of student proficiency in all grade levels. Although much needed attention has been devoted to improving literacy in grades K-3, little has been done within the local school district to provide intervention to improve basic reading skills and comprehension for middle school students scoring below-proficiency in reading and language arts. Although the state of Tennessee does not use a statewide reading intervention for middle school, the use of Reading Plus has served as the district-wide reading intervention program for students in grades 4-8. Despite the 3 year implementation of such intervention, score reports from the Tennessee Comprehensive Achievement Program (TCAP) remain below the national, state, and district Annual Measurable Objectives (AMO) for the local urban school district located in West Tennessee. The local district services approximately 117,000 students. Of the 117,000 K-12 students enrolled in the local school district, 25,708 are composed of students in middle school grades 6-8 serviced in 44 middle schools. The ethnic make-up of the local district includes: 81.7% Black or Hispanic, 9.6% Hispanic, 7.1% White, and 1.4% Asian. Economically Disadvantaged students comprise 84.3%, and English Language Learners make up 7.6% of the district population (Tennessee Department of Education, 2014).

The ELA proficiency gap within the local school district aligns with the district and national ELA gaps in proficiency. Table 1 illustrates the 2013 TCAP proficiency rates by ethnic group.

Table 1

2013 District-Wide TCAP Proficiency by Ethnicity

Ethnic Group	Proficiency Rate
White/Caucasian	84.1
Hispanic	34
Black/African American	29.5

The proficiency percentages within the local district lag behind those of the state by ethnicity and gender. Table 2 provides a visual representation of the 2013 statewide TCAP scores by ethnicity. Based on these proficiency levels the AMO for ELA was not met for the district or state (Tennessee Department of Education, 2014a).

Table 2

2013 State-Wide TCAP Proficiency by Ethnicity

Ethnic Group	Proficiency Rate
White/Caucasian	57.8
Hispanic	38.5
Black/African American	26.1

Furthermore, 8th grade reading National Assessment of Educational Progress (NAEP) scores revealed proficiency levels for all students at 33%, which was lower than the nation average of 35% proficient. By ethnicity, 41% of White, 16% of Black, 30% of Hispanic students were proficient (Nations Report Card, 2011).

Table 3

2011 Eighth Grade NAEP Reading Proficiency by Ethnicity

Ethnic Group	Proficiency Rate
White/Caucasian	41
Hispanic	30
Black/African American	16

The noticeable gaps in achievement on the 2013 TCAP and 2013 NAEP proficiency levels by district, state, and nation are evident of the need to explore effective reading strategies and interventions to increase the proficiency levels of middle school students within the local school district and state.

Rationale

NCLB (2002) measures states, districts, and schools based on whether students make AMO goals based on performance on the TCAP (Tennessee Department of Education, 2014a). Schools that do not meet AMO goals for 2 years are deemed high priority or focus schools (Tennessee Department of Education, 2014). Focus schools comprise the 10% of schools with the largest achievement gaps among groups of students by ethnicity and socioeconomic status. Priority schools consist of the lowest

performing 5% of schools in the state. The structure of school accountability and lack of adequate progress on the TCAP assessment has resulted in an increased amount of schools being placed in priority and focus schools categories.

Within the state of Tennessee, 83 schools have been identified as priority and 167 schools have been identified as focus schools. These classifications have a detrimental impact on the local district. The local district currently has the largest percentage of schools in these categories (Tennessee Department of Education, 2014a). As a result, within the last 2 years several schools from the local district have been placed under the management of the Achievement School District (ASD) or Innovation Zones (I Zone) district for improvement. Additionally, in an effort to increase student achievement, the local district has implemented the state mandated, Teacher Evaluation Model (TEM). Within the TEM model, the Tennessee Value-Added Assessment System stem is used to account for 35% of teachers' overall evaluation score (Shelby County School District, 2014).

The purpose of this study was to assess the practice of looping in middle school by comparing classroom settings (both looping and traditional) and achievement on the seventh grade ELA TCAP assessment. One group used in this study participated in a 2-year classroom looping experience. This group of students received ELA instruction from the same teacher during their sixth and seventh grade academic years. The second group received ELA instruction in a traditional classroom setting. This group received instruction from two different teachers during their sixth and seventh grade academic

years. The quantitative analysis included using scale and number correct scores to conduct a statistical comparison of scores for each group. The comparison through quantitative analysis of ELA TCAP assessment scores for these students provided further insight into the impact that looping students in middle schools may have on student achievement on the TCAP assessment. Data obtained from this study may serve as a guide for implementing looping/multi-year teaching as a reading intervention for middle school students.

Definitions of Terms

Academic motivation: Academic motivation refers to a student's enjoyment of learning characterized by an orientation toward mastery, curiosity, persistence, and the learning of challenging, difficult, and novel tasks (Gottfried, Gottfried, Cook, & Morris, 2005).

Annual Yearly Objective (AYP): Schools and school districts are measured on whether students meet performance benchmarks for grades 3-12 in math, reading. Schools that do not meet the achievement standards for 2 years are deemed high priority (Tennessee Department of Education, 2014a).

At-risk student: At-risk student refers to any child who is unlikely to graduate on schedule, with both the skills and self-esteem necessary to exercise meaningful options in the areas of work, leisure, culture, civic affairs, and inter/intra personal relationships (Pearl, 1972).

Looping/multi-year teaching: Looping/multi-year teaching refers to the practice of advancing a teacher from one level to the next along with his or her class staying as a group for 2 or more years. When the rotation is over, students advance to the next grade and the teacher then moves back to the lower grade with a new group of students (Gilliam, 2005).

Middle school: Middle school refers to a school that houses adolescents and is designed to meet the developmental needs of this age group (National Middle School Association, 2005).

Number correct score (raw score): The total number of raw points a test taker receives based on the number of questions answered correctly (Tan & Michel, 2011).

Proficiency: Proficiency is measured by the performance of students at a single point in time and how well those students perform against a set of standards. Proficiency levels only indicate whether or not a student met a certain target (Tennessee Department of Education, 2014b). Students who perform at this level demonstrate mastery in academic performance, thinking ability, and application of understandings that reflect the knowledge and skill specified by the grade/course level content standards and are prepared for the next level of study (Tennessee Department of Education, 2014b).

Reading/literacy: An active and complex process that involves: understanding written text, developing and interpreting meaning, and using meaning as appropriate to type of text, purpose, and situation (National Assessment Governing, 2012).

Scale score: Scores that have been mathematically transformed from number

correct/raw scores to another set of numbers in order to account for differences in difficulty across different test versions of a standardized assessment (Tan & Michel, 2011).

Tennessee Comprehensive Assessment Program (TCAP): A set of statewide assessments given in Tennessee to students in grades 3-8 to measure students' skills and progress in math, reading/language arts, science, and social studies (Tennessee Department of Education, 2010).

Tennessee Value Added Assessment System (TVAAS): TVAAS is a statistical method used to measure the influence of a district or school on the academic progress (growth) rates of individual students or groups of students from year-to-year (Tennessee Department of Education, 2014b). This statistical analysis of student achievement over time also provides insight on "teacher effect" in the classroom (Tennessee Department of Education, 2014b).

Traditional classroom setting: A classroom setting in which students remain with a teacher for one academic school year (Hitz, 2007).

Urban school: The term, urban school, refers to schools serving students in large metropolitan areas (Tucker et al., 2010).

Significance

Results of this study could be a beneficial intervention in assisting school districts and states in meeting the NCLB (2002) goal of achieving 100% student proficiency on standardized assessments. Additionally, this project study was needed to provide an effective intervention for schools to implement so that teachers are better able to

maximize on the level of instruction given to at-risk students. The significance of this study could also have an impact in increasing student academic engagement.

The requirement to find a way to increase student reading proficiency and academic engagement is more critical now than ever before. The state of Tennessee has recently implemented the use of TVAAS as part of teacher evaluations (Shelby County School District, 2014). TVAAS measures individual student growth and improvement rather than comparing student performance to a universal standard of achievement. This evaluation measure uses data from standardized state assessments for core subjects including: reading, math, science, and social studies. Under the TEM model, student scores on standardized state assessments account for 35% of a teacher's evaluation scores (Shelby County School District, 2014).

This project study could provide a model that could assist in raising teacher evaluation scores. The intent of this project study was to contribute to the body of knowledge needed to address the problem of students experiencing academic failure in ELA. The outcome of this study will add to research surrounding effective interventions by which local, state, and national educational stakeholders will reference to effectively implement plans to improve ELA proficiency on TCAP assessments in urban schools.

Research Question

The purpose of this study was to quantitatively compare classroom settings (looping and traditional) and achievement on the ELA TCAP assessment for seventh grade students. In this study, classroom settings (independent variable) were placed on a

nominal scale using the categories of looping classroom and traditional classroom. Standardized assessment scores (TCAP) were used as the dependent variable, using an ordinal/rank order scale. TCAP scores are reported as number correct and scale scores. Number correct scores indicate the total number of questions answered correct on an assessment (Tan & Michel, 2011). Scale scores are statistically converted raw scores used to control slight variations from one version of the test to the next (Tan & Michel, 2011). This study compared scores of both number correct and scale score achievement. This non-experimental ex post facto quantitative study was guided by the following research questions:

Research Question 1: Is there a statistical difference between scale scores on the standardized ELA TCAP assessment for students who looped and their peers in a traditional classroom setting?

$H_0 1$: There is no statistical difference between scale scores on standardized ELA TCAP assessment scores for students who looped and their peers in a traditional classroom setting.

$H_A 1$: There is a statistical difference between scale scores on standardized ELA TCAP assessment scores for students who looped and their peers in a traditional classroom setting.

Research Question 2: Is there a statistical difference in the number correct scores on the standardized ELA TCAP assessment for students who looped and their peers in a traditional classroom setting?

$H_0$2: There is no statistical difference in number correct scores on the standardized ELA TCAP assessment for students who looped and their peers in a traditional classroom setting.

H_A2: There is a statistical difference in number correct score on the standardized ELA TCAP assessment scores of students who looped and their peers in a traditional classroom setting.

Review of the Literature

Saturation for the literature review consisted of researching databases by topic in the field of education and psychology. The databases searched included ERIC, Educational Research Complete, Education from SAGE, and ProQuest Central. Boolean search terms included, but were not limited to the following: *educational reform, common core, No Child Left Behind, social development, Elementary and Secondary Education Act, Race to the Top, highly qualified teacher, educational accountability, standardized assessment, TVAAS, proficiency, educational pedagogy,* and *middle school movement.*

Theoretical Framework

This project study was grounded in the social development and zone of proximal development theories, founded by Russian psychologist, Lev Vygotsky (1896-1934). Vygotsky's developmental theories and educational practices have become generally recognized as a socio-cultural approach to human development and learning, which has yielded various approaches for educating children in diverse contexts (Eun, 2010). These

approaches include formal instruction in schools coupled with informal learning at home in various domains of knowledge and skills (Eun, 2010).

Although Vygotsky was only 37 years old at the time of his premature death, his work paved the way of providing a better understanding of developmental learning. The socio-cultural theory of development espouses the view that social interaction among two or more people is the greatest motivating force in human development (Christy, 2012). Additionally, Vygotsky believed that communication via the use of language provides one of the most effective means of social interaction (Eun, 2010). By collaborating toward a common cultural goal, people co-construct new knowledge by building on each participant's interaction (Christy, 2012).

The core of the social development theory is the idea that child development is the result of the interactions between children and their social environment (Vygotsky, 1978). These interactions include those with parents and teachers, playmates and classmates, and brothers and sisters. They also involve relationships with significant objects such as books or toys, and culturally specific practices that children engage with at home, in the classroom, and on the playground. Vygotsky's theory of social development encompasses three main themes: cognitive learning, the more knowledgeable other, and zone of proximal development (Vygotsky, 1978).

Vygotsky's theory of cognitive learning can be contrasted with Piaget's theory of child development (Gray & MacBlain, 2012). While Piaget believed that development preceded learning (Gray & MacBlain, 2012), Vygotsky believed social learning precedes

development (Vygotsky, 1978). Vygotsky proclaimed, “Every function in the child’s cultural development appears twice: first on the social level, and later on the individual level; first between people (inter-psychological) and then inside the child (Intra-psychological)” (Vygotsky, 1978, p. 57). When considering cognitive development, particularly in adolescents, one must take into account the social context in which it is occurring. Commonly used words in adolescents’ circles affect what thoughts and ideas they will use to process any new information related to their existing body of knowledge (Vygotsky, 1962).

Vygotsky (1978) defined the more knowledgeable other (MKO) as any being having a better understanding or higher ability than the learner. Although commonly seen as a teacher, coach, or older adult, the MKO could also appear as a peer, younger person, or even a computer. The MKO assists the learner in obtaining greater levels of understanding skills and concepts (Vygotsky, 1978).

Vygotsky (1978) theorized the zone of proximal development (ZPD) as the distance between what is known and what is unknown by the learner. It is the difference between the ability of the learner to perform a specific task under the guidance of his MKO, and the learner`s ability to do that task independently (Vygotsky, 1978). In explaining his understanding of the relationship between education and development, Vygotsky (1978) pointed out that in addition to what children are today, they also have a certain limited potential that is not found within the zone of their actual development, but in the zone of proximal development. If education is oriented on the zone of proximal

development, it will be developmental (Kravtsova, 2009; Vygotsky, 1978). The concept of ZPD can be compared to the way in which adolescents think and develop. ZPD is the most efficient way to the cognitive and social functions of an adult. It then becomes understandable that adolescents attempt to form groups of peers, and then attempt to imitate adult social behaviors (Vygotsky, 1962).

No Child Left Behind

NCLB (2002), enacted in 2001 and passed into law in 2002 by President George W.Bush, was a revision of President Lyndon Johnson's Elementary and Secondary Education Act (ESEA) of 1965 (ESEA, 1965). The intent of NCLB (2002) was to identify and transform low-performing schools that had not provided a high-quality education, as evidenced by standardized assessment scores into successful schools. NCLB (2002) also imposed accountability provisions intended to close the achievement gaps between high and low achieving students, and especially the achievement gaps between minority and non-minority students.

Under NCLB, states were allowed to develop their own standards, test score proficiency levels, and statistical measurement formulas to determine AYP. A major concern about the structure of AYP was the ability given to states to statistically manipulate their AYP implementation, which belies a false impression attributable to the general public that AYP is a consistent measure of school effectiveness across the country (Maleyko & Gawlik, 2011). The NCLB Act is arguably the most far-reaching education policy initiative in the United States over the last 4 decades. This Act

dramatically expanded federal influence over the nation's more than 90,000 public schools (Dee & Jacob, 2011). NCLB required that states introduce sanctions and rewards relevant to every school based on their AYP status. NCLB mandated explicit and increasingly severe sanctions for persistently low-performing schools that receive Title I aid like public school choice, staff replacement, and school restructuring (Dee & Jacob, 2011). Realizing that an increasing number of states and districts were failing to meet the strenuous guidelines necessary to achieve AYP status, President Barack Obama's administration began to offer waivers to more than 44 states and districts that wished to apply (House, 2013).

The intent of waivers is to give control back to states while encouraging both rigor and innovation in states, districts, and schools. With waivers, states must address certain requirements including adopting college-and-career-ready standards, focusing significant attention on the most troubled schools, and creating guidelines for teacher evaluations based in part on student performance. Therefore, instead of sanctioning failing schools and declaring that all students must be proficient by 2014 (as originally provisioned in NCLB), states can develop their own intervention to help the lowest-performing 15% of schools (House, 2013). Waivers allow states to establish their own accountability goals, processes, and measurements (House, 2013).

The Concept of Reading/Literacy

According to the Committee on Prevention of Reading Difficulties in Young Children (1998), reading is a complex developmental challenge intertwined with many

other developmental accomplishments such as attention, memory, language, and motivation. Reading is not only a cognitive psycholinguistic activity but also a social activity (Committee on the Prevention of Reading Difficulties in Young Children, 1998, p.15). Being a good reader indicates that a child has gained a functional knowledge of the principles of the basic alphabetic principles. These principles of spoken language can then be analyzed into strings of separable words (Committee on the Prevention of Reading Difficulties in Young Children, 1998, p.15). At some point, particularly by adolescence, children are expected to read unfamiliar texts by relying solely on the print to draw meaning from it (Committee on the Prevention of Reading Difficulties in Young Children, 1998, p.15).

Reading instruction should promote continuous improvement, as well as, achievement of comprehensive standards by all students. There is no one way to teach reading that is effective for all students (National Education Association, 2014). The teacher is the key to successful reading (National Education Association, 2014). Reading instruction must be responsive to the diverse strengths, needs, backgrounds, interests, and ways of learning that students bring to school (National Education Association, 2000). In traditional classroom settings, students receive instruction from a different teacher each year. In looping environments, students receive instruction from the same teacher for 2 or more years. Advocates of looping argue that teachers can easily identify skills to reinforce for specific students without having to go through the exploration stage of identifying weak areas each year (Baran, 2008). As a result, teachers are able to

maximize their knowledge of students' abilities and optimize student growth (Baran, 2008).

Reading and Language Arts Curriculum and Standards

The Tennessee Department of Education's framework for middle school reading emphasizes decoding, word recognition, fluency, and comprehension (Tennessee Department of Education, 2014e). Word recognition is the ability to recall and recite words (Tennessee Department of Education, 2014e). Comprehension is the construction of the meaning of a written or spoken communication through a reciprocal holistic interchange of ideas between the interpreter and the message in a particular communicative context (Tennessee Department of Education, 2014e). Comprehension monitoring in the act of reading is the noting of student successes and failures in developing or attaining meaning, usually with reference to an emerging conception of the meaning of the text as a whole (Tennessee Department of Education, 2014e).

Standards spell out what students should know and be able to do at the end of a school year (Rotham, 2011). Curriculum defines the specific course of study the scope and sequence that will enable students to meet standards (Rotham, 2011). Beginning in grade 6, the reading/literacy standards are no longer offered as a core subject. Instead teachers of ELA, history/social studies, science, and technical subjects are required to use their content area expertise to help students meet the particular challenges of reading, writing, speaking, listening, and language in their respective fields (National Governors Association Center and Council of Chief State School Officers, 2014).

ELA standards provide guidance and specificity in planning and implementing curriculum at the state, district, and school levels (Tennessee Department of Education, 2014e). Students at every grade level apply similar language skills and concepts to increasingly complex materials. Students are expected to build upon and refine their skill knowledge, and gain reading independence as they learn (National Governors Association Center and Council of Chief State School Officers, 2014). At all grade levels, the skills and concepts in the ELA curriculum weave several standards and content areas to support student learning (Tennessee Department of Education, 2014e).

The goal of prior reading standards in the local district was for students to practice and internalize essential lifelong learning skills for reading, writing, understanding, and interpreting content specific materials (Tennessee Department of Education, 2014a). The strategies would be applied in the content areas of English, mathematics, science and social studies. The skills that the standards promote include: previewing/reviewing print and non-print text, activating prior knowledge, processing/acquiring new vocabulary, organizing information, understanding visual representations, and self-monitoring/reflecting (Tennessee Department of Education, 2014e).

The state's ELA curriculum is comprised of eight comprehensive content standards: language, communication (listening and speaking), writing, research, logic, informational text, media, and literature (Tennessee Department of Education, 2014e). Course level expectations (CLEs) and the grade level expectations (GLEs) are the overarching goals for student learning in the ELA curriculum (Tennessee Department of

Education, 2014e). Teachers use the GLEs and CLEs as the principle guide for instructional planning. State performance indicators (SPIs) are the basis for student accountability and are used by the state to prepare standardized test items aligned with corresponding grade level expectations or course level expectations (Tennessee Department of Education, 2014a). Checks for understanding are the formative and summative assessment components of the standards (Tennessee Department of Education, 2014a). Formative assessments are used to inform instruction and guide students toward mastery. Summative assessments are used to ensure that students have learned the overall concepts and are ready to move to the next instructional level (Tennessee Department of Education, 2014a).

Common Core State Standards

State education standards have been around since the early 1990s. By the early 2000s, every state had developed and adopted its own learning standards that specify what students in grades 3-8 and high school should be able to do. Every state also had its own definition of proficiency, which is the level at which a student is determined to be sufficiently educated at each grade level. This lack of standardization was one reason why states decided to develop the Common Core State Standards (CCSS; National Governors Association Center and Council of Chief State School Officers, 2014). The CCSS, like most academic content standards, are designed to provide a clear understanding of what students are expected to learn (CCSS; National Governors Association Center and Council of Chief State School Officers, 2014). They are

additionally designed to be robust and relevant to the real world by reflecting the knowledge and skills that young people need for success in college and careers (CCSS; National Governors Association Center and Council of Chief State School Officers, 2014). The concept of college and career readiness is a driving force behind the CCSS (Wixson & Lipson, 2012). A panel of experts and teachers throughout the United States drafted these standards and CCSS differ from most previous state standards in many ways (Wixson & Lipson, 2012). CCSS call on teachers to focus on deepening students' understanding of what they're learning, enhancing their problem-solving skills, and improving their ability to communicate ideas (Wiener, Aspen, & Council of Chief State School, 2013). Currently 45 states, the District of Columbia, four territories, and the Department of Defense Education Activity (DoDEA) have voluntarily adopted and are moving forward with the standards (National Governors Association Center and Council of Chief State School Officers, 2014).

The ELA CCSS provide an integrated view of literacy and language, highlighting the areas within the ELA: reading, writing, speaking/listening, and language. The grade 6-12 standards are organized by ELA and subject matter in which all four areas are broken down by literature and informational text (Wixson & Lipson, 2012). The CCSS in ELA/literacy require students to read a mix of literary and informational texts, write arguments using evidence drawn from texts, demonstrate speaking and listening skills (which include collaboration and working in teams), and use different media in building presentations (Blosveren, 2012).

Middle School Movement

In 1963, Alexander, credited with initiating the middle school movement, presented his ideas about curriculum and instruction for adolescents (NMSA, 2010). Alexander proposed to implement a new "middle school" focusing on relevant curriculum and developmentally appropriate essential learning processes for adolescent students (NMSA, 2010). The purpose of the middle school movement was to encourage schools to move away from the traditional junior high school, and toward the establishment of schools specifically designed to serve the needs of students in grades 5 or 6 through 8 (Stier, 1973).

The middle school goal. Young adolescents hunger for informal interactions and conversations with caring adults (NMSA, 2010). An important factor in adolescent development is the need for guidance from adults in creating environments that foster opportunities for optimal brain development (Roaten & Roaten, 2012). It cannot simply be about academics, but has to be focused on the social and emotional development of each child. Life skills, study skills, and social skills need to be taught during these years because these foundational skills are crucial to future success (U.S. Department of Education, 2011b). The middle school concept holds that adolescents have special developmental needs and that adolescents achieve when their developmental needs are met (NMSA, 2003). The vision of the NMSA is to provide information so that programs for middle school students are based on the "developmental readiness, needs, and interests of young adolescents" (NMSA, 2003, p. 1). The heart of the middle school

concept is curriculum and pedagogy. Programs for adolescents must be based upon the developmental readiness, needs, and interests of young adolescents (NMSA, 2003).

Instruction in most middle schools is structured by classroom departmentalization or team teaching. Within the departmentalized model, students change classrooms sharing teachers who specialize in only one, two, or three subject areas (Hood, 2010). Most middle schools employ traditional classroom settings, in which the student and teacher remain together for one academic school year (Hume, 2007). The rationale for such model is that the instructional content of each academic subject in the secondary grades requires teachers who are experts in the subject area and grade level, so that instruction will be of higher quality (NMSA, 2003; NCREL, n.d.). Team teaching is a method in which a group composed of anywhere between 2 and 6 teachers work closely with each other to provide core instruction to a set group of students in the areas of mathematics, english language arts, science, social studies, and health/PE (Laughlin, Nelson, & Donaldson, 2011). This core team sometimes includes Special Education teachers that team-teach with the Mathematics and English Language Arts teachers (Laughlin, Nelson, & Donaldson, 2011).

Looping

Looping/Multi-Year teaching refers to the practice of advancing a teacher from one grade level to the next along with his or her class, staying as a group for two or more years (Gilliam, 2005). When the rotation is over, students advance to the next grade and the teacher then moves back to the lower grade with a new group of students (Gilliam,

2005). The concept of looping became popular in the 1900s when Steiner, an Austrian educator and philosopher, founded Waldorf schools (Mays & Nordwall, 2006). Waldorf schools were founded to educate children whose parents worked in Waldorf-Astoria cigarette factories in Stuttgart, Germany after World War I (Mays & Nordwall, 2006). Waldorf education focused on the whole child, and was based on the understanding of human development that addresses the needs of the growing child (Steiner, 1972).

Because Steiner believed that teachers should take the role of the "third parent", students remained with the same teacher for the first 8 years of school (Mays & Nordwall, 2006). Within the Waldorf model, the teacher's focus was to draw upon children's strengths by creating an environment in which the students would be filled with interest, curiosity, and enthusiasm (Mays & Nordwell, 2006). Looping was endorsed by the U.S. Department of Interior (known today as the U.S. Department of Education) as early as 1913 under the label "teacher rotation," and was defined as a form of classroom organization in which a teacher spends 2 or 3 years with the same group of students (Grant, Richardson, & Johnson, 1996; Thompson et al., 2009). In a 1913 memo noted by Grant et al. (1996), the U.S. Department of Interior posed the question:

> Shall teachers in graded schools be advanced from grade to grade with their pupils through a series of two, three, four, or more years so that they may come to know the children they teach and be able to build the work of the latter years on that of the earlier years, or shall teachers be required to remain year after year in the same grade while the children, promoted from grade to grade, are taught by a

different teacher every year? (p. 2)

The concept of “teacher rotation” had been advocated by the U.S. Department of Interior as early as 1913. However, the concept was disregarded in the United States until around 1928 at which time the United States became inspired by the success of Waldorf Schools and began implementing the looping concept (Grant et al., 1996). During the 19th and 20th centuries, one-room schoolhouses were used to educate children in the United States (Gelman, 2001). In the one-room schoolhouse the same teacher-delivered instruction to students in several grade levels year after year (Hitz et al., 2007). The practice of looping remained popular in the United States until the 1950s and 1960s when smaller schools began to consolidate into larger schools (Gelman, 2001). Teachers were then recognized as specialists in their grade level instead of specialists educating children. As a result, parents began to expect a different teacher for each grade level (Gelman, 2001).

Benefits of looping. The educational practice of teachers and young adolescents remaining together for 2 or more years provides a stable learning environment that supports students' developmental changes, and responds to their individual needs (Thompson et al., 2009). The looping classroom can be particularly beneficial for students with academic or social challenges (Kenney, 2007). Looping is believed to create a bond between teacher and student when they remain together for more than 1 year. This bond assists the teacher in tapping into a student’s prior experiences to introduce new material (Kenney, 2007). Students may be less apprehensive about the

start of a new school year when returning to a looping classroom, because children tend to have less stress around people they already know (Pratt, 2009; Westerfield, 2009).

According to Thompson et al. (2009), the advantages of looping are intertwined for teachers, students, and families. Looping provides the benefits of time, relationships, and student support and engagement (Thompson et al., 2009). Relationships built through teacher/student, student/student, and teacher/parent interactions create a sense of stability for students and parents. Additionally, long-term engagement between teachers and students increases and fosters the social development of students due to the multi-year investment (Thompson et al., 2009). Looping also supports the assessment of students. Additional time from looping gives teachers the opportunity to assess student achievement and diagnose potential academic problems (George & Lounsbury, 2000).

Concerns regarding looping in Middle School. Although Thompson et al. (2009) acknowledge time, relationships, and student support and engagement as benefits of looping; several potential concerns have been identified regarding implementing looping in middle schools. The practice of looping requires teachers to provide engaging instruction for at least 2 academic years to the same group of students. In middle school, teachers could face challenges preparing for the different pedagogical skills and content that may exist among grade levels (Thompson et al., 2009).

When considering cognitive development, particularly in adolescents, one must take into account the social context in which learning is occurring. Based on Vygotsky's theory of cognitive development, social context impacts thoughts and actions in

adolescents (Nichols & Nichols, 2002). Vygotsky (1978) suggested that adolescents learn through interactions with MKOs who are able to provide instruction based on the zone of proximal development. In order for teachers to serve in this capacity, a positive relationship between student and teacher must occur (Nichols & Nichols, 2002). Therefore, classroom management/behavior issues, and differences in personality types among teachers and students could pose another potential concern of looping in middle school (Nichols & Nichols, 2002). Lastly, looping could potentially present a challenge for students who enter the looping classroom after "membership" has been established. Entering a looping classroom during the second year of the loop can negatively affect classroom cohesiveness and possibly cause the new student to feel left out (Hegde & Cassidy, 2004; Simel, 1998).

TCAP Assessment

The TCAP is a timed, multiple choice criterion-referenced achievement assessment that measures skills in ELA, mathematics, science and social studies. The TCAP assessment is mandated for all students in grades 3-8, and designed to evaluate the level of student proficiency on the Tennessee Curriculum Frameworks (Tennessee Department of Education, 2014). Criterion-referenced items measure a student's performance according to specific standards rather than to the performance of other test takers. These items are directly aligned with the content standards and state performance indicators (Tennessee Department of Education, 2014a).

The intent of this assessment is to provide diagnostic information for specific state content objectives by identifying academic skills mastered by the student (Tennessee Department of Education, 2014a). Additionally, the assessment complies with the requirements established under the federal NCLB Act of 2001(Tennessee Department of Education, 2014a). The TCAP assessment is customized for Tennessee Curriculum Standards. The content of the assessment includes original illustrations and photographs, reading selections from popular literature and periodicals, and the use of themes to link passages and items throughout the test (Tennessee Department of Education, 2014a). The TCAP assessment is administered each academic school year to students in grades 3-8 during the month of April (Tennessee Department of Education, 2014a).

Student Proficiency and Growth

Proficiency. In terms of AYP, ELA proficiency in Tennessee middle schools is determined by comparing student performance on the TCAP assessment against a set of standards. Proficiency levels indicate whether or not a student met a certain target (Tennessee Department of Education, 2014b). TCAP score results are provided as number correct (raw scores) and scale score ranges to determine student achievement level indicators on TCAP assessments (Tennessee Department of Education, 2014a). Number correct scores equate to the total number of raw points a test taker receives based on the number of questions answered correctly (Tan & Michele, 2011). The number correct scores are transformed into sets of values that differ from the raw score points obtained directly from a test (Tan & Michel, 2011). These transformed test scores, or

scaled scores, are reported along with the raw number correct score points. This standardization allows scores reported from a test to have consistent meaning for all test takers (Tan & Michel, 2011)

Table 4

ELA TCAP Scale and Number Correct Score Ranges

		Scale Score Ranges				Number Correct Score Ranges			
Year	Grade	BB	B	P	A	BB	B	P	A
2011	4	600-708	709-759	760-798	799-900	0-25	26-43	44-53	54-60
2012	5	600-705	706-754	755-802	803-900	0-25	26-41	42-54	55-60
2013	6	600-707	708-751	752-802	803-900	0-26	27-41	42-55	56-62
2014	7	600-717	718-759	760-797	798-900	0-27	28-42	43-53	54-62

TCAP scale and number correct score ranges are used to identify students as: advanced, proficient, basic, and below basic (Table 4). Advanced level ranges indicate superior mastery in academic performance, thinking abilities, and application of understandings that reflect the knowledge and skill specified by the grade/course level content standards and are significantly prepared for the next level of study (Tennessee Department of Education, 2014b). Proficient level ranges demonstrate mastery in academic performance, thinking abilities, and application of understandings that reflect the knowledge and skill specified by the grade/course level content standards and are prepared for the next level of study (Tennessee Department of Education, 2014b). Basic level ranges demonstrate partial mastery in academic performance, thinking abilities, and application of understandings that reflect the knowledge and skill specified by the

grade/course level content standards and are minimally prepared for the next level of study (Tennessee Department of Education, 2014b). Below basic level ranges indicate that students have not demonstrated mastery in academic performance, thinking abilities, and application of understandings that reflect the knowledge and skill specified by the grade/course level content standards and are not prepared for the next level of study (Tennessee Department of Education, 2014b).

Implications

The increasing call for states, districts, and schools to improve student proficiency in ELA is of grave concern for the local school district, teachers, parents, and students. As the local district continues to lose schools, particularly middle schools, to state takeover structures there is a need to find ways to provide more effective intervention for students struggling in ELA. The current ELA proficiency levels within the local district indicate a need to reform the structure of current practices and structures within the middle school.

The middle-grade years have been called the "Bermuda Triangle" of K-12 education (NMSA, 2010). It is the time when students seem to sink or swim. In high-poverty schools, in particular, the middle grades can either put students on a path to college and career or alternately, dropping out (US Department of Education, 2011a). Designing middle school instruction based on the assumption that every student is ready to master specific concepts and content at precisely the same time is unrealistic (NMSA, 2010). Educators of middle school students should form learning partnerships with their

students as they demonstrate empathy while engaging them in significant academic learning experiences (NMSA, 2010). Long-term student-teacher relationships have been known to have real educational and developmental value during middle school years (NMSA, 2010). Keeping a team of teachers and its students together for two or three years provides opportunities for teachers to establish sustained relationships with students (NMSA, 2010).

Although this study was limited to one middle school, the outcome of analyzing the association of classroom settings (classroom looping and traditional) and ELA TCAP achievement of seventh grade students after a 2 year looping experience against their peers in a traditional classroom setting may serve as justification for increasing the use of classroom looping in middle schools. Additionally, student and teacher TVAAS levels could be improved through increased growth scores on the TCAP assessment. A collection of this type of data on a larger scale could perhaps lead to further justification to implement such data analysis on a district, and perhaps statewide level. The outcome of this study may lead to the development of a classroom looping action plan. This action plan could serve as a reference guide for school administrators seeking effective interventions to improve not only ELA TCAP performance but also overall academic performance in middle schools.

Summary

The enactment of the NCLB (2002) implementation sparked the beginning of a major shift in the educational focus throughout the United States. Since the

implementation of NCLB, more emphasis has been placed on holding states, districts, schools, and teachers accountable for student performance. The alarming rate of students, particularly those from diverse backgrounds, failing to perform at proficient levels on TCAP assessments has indicated a need to explore more effective ways to close the achievement gap. The cause for concern in the area of low ELA is justified with the structure of accountability, which has resulted in many schools within the local district being taken over by the state due to failure to meet AYP levels. The intent of this study is to assess the practice of looping in a middle school by analyzing associations between classroom setting and achievement on the ELA TCAP standardized assessment scores of seventh grade students. This ex-post facto non-experimental quantitative design used classroom setting (looping and traditional) as independent variables. TCAP achievement scores served as dependent variables. The rationale for the study was discussed in this section, and definitions of terms utilized throughout the study were provided. The theoretical framework grounding the study was explained, and the literature review expounded on the topics related to the problem.

Section 2 focuses on the methodology in the study. An explanation for the selection of the methodology is explained, along with a justification for its use. The procedures for selecting participants, measures taken to provide confidentiality, informed consent, and participant protection from harm is also included. The researcher's role, relationship with participants, and any potential effect of the relationship with the participants in data collection are addressed as well. The setting in which the quantitative

data was collected, along with a description of how the data will be collected and analyzed is also included. This section also provides a detail of the research design and the rationale for incorporating such design, along with the description of the setting, population, and sample.

Section 2: The Methodology

Introduction

Local schools and districts within Tennessee are faced with increasing levels of achievement accountability. As mandated by NCLB (2002), Tennessee administers the TCAP assessment to all students in grades 3-8 in the subject areas of mathematics, ELA, science, and social studies. School and district AYP is measured based on student performance on this standardized assessment. The decline in ELA TCAP assessment scores has resulted in a sense of urgency to implement effective intervention actions to close the achievement gaps experienced in many schools and districts within the state. The purpose of this study was to assess the outcome of implementing looping in a seventh grade ELA classroom quantitatively. The outcome of the data analysis in this study could be beneficial to school and district level administrators when considering effective interventions to close the ELA achievement gap.

The methodology used in this study, beginning with the research design, is explained in this section. A description of the setting, sample, and population is also presented. The research questions and hypothesis guiding the study are included. A description of instrumentations, data collection, data analysis, and measures to ensure validity and reliability are explained. Assumptions and limitations, as well as procedures to protect the confidentiality of study participants, have also been provided.

Research Design

Quantitative research provides a means of testing theories by examining relationships and measuring variables using numerical data (Creswell, 2014). The quantitative research design employs experimental, quasi-experimental, or non-experimental designs. Experimental methods are used to conduct experiments or "tests," under controlled conditions to demonstrate a known truth or examine the validity of a hypothesis *(*Muijs, 2011). The intent of experimental designs is to control the environment as much as possible and only concentrate on those variables under study (Muijs, 2011). Control is also increased by the fact that in an experiment the researcher manipulates the predictor variable (Muijs, 2011).

In quasi-experimental research designs, the researcher does not manipulate variables and evaluates data as it exists (Creswell, 2009). This type of design usually involves non-randomly assigned groups (Creswell, 2009). Non-experimental designs, usually descriptive in nature, use non-randomly preexisting groups to answer questions about groups or about whether group differences exist (Lobmeier, 2010). Non-experimental designs include comparative, correlational, developmental, one-group pretest-posttest, and ex post facto (also referred to as causal-comparative designs; Lobmeier, 2010).

The two non-experimental designs considered for this study were correlational and ex post facto. Correlational designs measure two or more non-manipulated variables for each participant to ascertain whether linear relationships exist between the variables

(Lobmeier, 2010). In ex post facto designs, values of a dependent variable are compared based on a categorical independent variable. Within this design, groups are determined by their values on some pre-existing categorical variable (Lobmeier, 2010). The researcher then tests for statistically significant differences in the dependent variable between groups (Lobmeier, 2010). The intent of this study was to assess the outcome of implementing looping in middle school. An ex post facto design appeared most appropriate as this study used classroom settings (both looping and traditional) as independent variables and ELA TCAP assessment scores as a dependent variable.

Research Questions

This study quantitatively compared classroom settings (independent variables) using nominal scale categories of the looping classroom and the traditional classroom. TCAP number correct/raw and scale scores served as the dependent variable using an ordinal/rank order scale. Number correct scores indicate the total number of questions answered correct~~ly~~ on an assessment (Tan & Michel, 2011). Scale scores were statistically converted raw scores used to control slight variations from one version of the test to the next (Tan & Michel, 2011). Both number correct/raw scores and scale scores are used to classify students' performance levels as either: advanced, proficient, basic, or below basic (Tennessee Department of Education, 2014b). Therefore, this study compared scores of both number correct and scale score achievement. The following research questions guided this non-experimental ex post facto quantitative study:

Research Question 1: Is there a statistical difference between scale scores on the standardized ELA TCAP assessment for students who looped and their peers in a traditional classroom setting?

$H_0 1$: There is no statistical difference between scale scores on standardized ELA TCAP assessment scores for students who looped and their peers in a traditional classroom setting.

$H_A 1$: There is a statistical difference between scale scores on standardized ELA TCAP assessment scores for students who looped and their peers in a traditional classroom setting.

Research Question 2: Is there a statistical difference in the number correct scores on the standardized ELA TCAP assessment for students who looped and their peers in a traditional classroom setting?

$H_0 2$: There is no statistical difference in number correct score on the standardized ELA TCAP assessment for students who looped and their peers in a traditional classroom setting.

$H_A 2$: There is a statistical difference statistical in number correct score on the standardized ELA TCAP assessment scores of students who looped and their peers in a traditional classroom setting.

Setting and Sample

The setting for this study was a middle school located within a large urban school district in West Tennessee. The middle school enrollment comprised approximately 650

sixth, seventh, and eighth-grade students. Of this enrollment size, 245 students were in grade 7. The seventh grade students were departmentalized into two teams: Team A and Team B. Each team included a mathematics, ELA, science, and social studies teacher. At the end of the 2012-2013 academic year, ELA teachers on Team B transitioned from the sixth to seventh grade with their students. As a result, 118 students received ELA instruction from the same teacher for 2 years, while the remaining 127 students received ELA instruction from a different teacher in the seventh grade. Students in both groups received instruction from the same ELA curriculum. ELA teachers planned lessons together and administered the same teacher-made, formative, and summative assessments. Additionally, the instruction was given to each group for 50 minutes per day, 5 days per week.

Sampling Method and Size

The sample population for this study included 245 students that comprised the 2013-2014 seventh grade class. Of the sample population, 118 students were in a 2 year classroom looping setting (treatment group), and 127 were in a traditional classroom setting (control group). A power analysis using parameters of alpha = .05, power = .80 determined a sample size of 94 participants from the looping group to be appropriate for this study. Probability sampling using a simple random selection process was used in this study. According to Fritz and Morgan (2010), the use of a random selection process increases the likelihood of obtaining a sample representative of the population being

studied. A random sample of 94 participants was selected from the 118 students in the looping classroom group, and 94 students from the traditional classroom setting group.

For this ex post facto study, permission to use archival data has been requested and granted by the district's Department of Research and Accountability (Appendix B). Requested data included: 2011, 2012, 2013, and 2014 ELA TCAP individual number correct/raw and scale score reports.

Instrumentation

The state ELA TCAP assessment was the instrument used in this quantitative study. The TCAP assessment is mandated for all students in grades 3-8 in the state of Tennessee. The TCAP assessment measures SPIs in ELA, math, science,and social studies (Tennessee Department of Education, 2014b). Data were disaggregated by student number correct/raw score and scale score (Table 4).

Validity and Reliability

Validity and reliability of the TCAP assessment instrument are verified by the Tennessee Department of Education (Tennessee Department of Education, 2014b). As mandated by the Tennessee Department of Education, all students in grades 3-8 are required to take the TCAP assessment each year. Tennessee has used the current version of the TCAP assessment since 2009-2010, at which time the assessment was restructured to align with newly adopted standards (Tennessee Department of Education, 2014b). The state of Tennessee uses a series of steps to ensure test validity and reliability (Tennessee Department of Education, 2014b). Test vendor consultants are subcontracted to write test

items based on Tennessee'sSPI. Item Review Committees consisting of Tennessee teachers, counselors, administrators, and supervisors review test items for accuracy, alignment with curriculum standards and performance indicators, and bias and sensitivity (Tennessee Education Association, n.d.). Revisions of test items are then made based on input from the Item Review Committees (Tennessee Education Association, n.d.).

Tennessee curriculum and instruction specialists and assessment specialists review the revised test items (Tennessee Education Association, n.d.). Test items, reading passages, and illustrations must be approved by the Department of Education before field-testing (Tennessee Education Association, n.d.). All items are field tested, and those that meet reliability, validity, and other technical parameters are included in the pool of approved items for use in actual tests (Tennessee Education Association, n.d.).

Reliability. Reliability of the TCAP assessment is established by conducting an inter-correlation analysis of number correct scores by subject and grade level for reporting categories using a Pearson Correlation analysis (Tennessee Department of Education, 2013). Reliability (Table 5) is also established by conducting a performance classification consistency (P), Kappa (K), probability of chance, and classification accuracy analysis (Tennessee Department of Education, 2014c).

Table 5

Grade 7 ELA TCAP Performance Classification Consistency and Accuracy

Index	***Cut 1***	***Cut 2***	***Cut 3***	***Overall***
Classification consistency (P)	0.92	0.89	0.94	0.75
Kappa (K)	0.74	0.78	0.67	0.65
Probability of chance	0.69	0.52	0.81	0.30
Classification accuracy	0.94	0.93	0.96	0.83

Validity. Validity of the TCAP assessment is established through an eigenvalue factor analysis (Table 6).

Table 6

Grade 7 ELA Eigenvalue Factor Analysis

Number of items	First Eigenvalue	Second eigenvalue	Ratio of first two eigenvalues	Proportion of common variance explained by first eigenvalue
75	5.36	0.68	7.83	0.82

Additionally, the validity of the TCAP assessment instrument is verified through test security measures implemented by the Tennessee Department of Education (Tennessee Education Association, n.d.). Each year district and local school site building test coordinators receive training on test security guidelines implemented by the state (Tennessee Education Association, n.d.). These measures are strictly enforced by each local district and school site. Under Tennessee Code annotated 49-1-607, any person

found not to have followed security guidelines for administration of the TCAP test may result in immediate suspension, grounds for dismissal, and/or revocation of state license (Tennessee Department of Education, 2014b).

Data Collection and Analysis

This project study used nonparametric statistics. Nonparametric statics focuses on data that are not normally distributed (Laerd, 2015). In this study, I sought to determine if there was a statistical difference in seventh grade ELA TCAP assessment scores (raw/number correct and scale scores) between two classroom settings. This study used Statistical Package for Social Sciences (SPSS™) version 21 to conduct a Mann-Whitney U test. The Mann-Whitney U test is used to compare differences between two independent groups when the dependent variable is either ordinal or continuous, but not normally distributed (Laerd, 2015). The Mann-Whitney U test was chosen to compare the scores of students who participated in looping classrooms and those who participated in traditional classroom settings, using a nominal scale. The dependent variable, seventh grade ELA TCAP assessment scores, were placed on a categorical scale (1 = looping and 0 = traditional).

Data Analysis

A data use application (Appendix B), and data agreement form (Appendix C) were submitted to the local district to request permission to use archival ELA TCAP data for 2011, 2012, 2013, and 2014 for study participants. After obtaining Walden University IRB approval (02-20-15-0141846), de-identified ELA TCAP scale and number correct

scores were provided on an Excel spreadsheet from the district's Planning and Accountability Office research analyst. Although I sought to determine a statistical difference between median scores for the 2014 tested year, in which classroom settings differed, an analysis of the prior years was conducted to determine if statistical differences occurred prior to looping.

ELA TCAP data for each year was entered into the Statistical Package for Social Sciences (SPSS™) version 21, and an analysis of number correct and scale scores using the Mann-Whitney *U* tests was conducted for each year. For a Mann-Whitney *U* test to be appropriate, four assumptions must be met. The first assumption requires the use of one dependent variable measured on a continuous or ordinal scale (Laerd, 2015). In this study, ELA TCAP assessment scores were used as the dependent variable. The second assumption was the requirement of one independent variable consisting of two groups (Laerd, 2015). This study used classroom setting with two groups: looping and traditional as the independent variable. The third assumption required no relationship between the observations in each group of the independent variable or between the groups themselves (Laerd, 2015). Participants in this study were either in the looping classroom group or traditional classroom setting group; it was not possible for them to be associated with both. The fourth assumption was to determine whether or not the distribution of scores for each of the independent variable groups were normally distributed (Laerd, 2015). A normality test was conducted using a Shapiro-Wilk test

(Table 7) and scale scores (Table 8) were normally distributed for 2011-2014 ELA TCAP assessments as assessed by Shapiro-Wilk's test ($p>.05$).

Table 7

Shapiro-Wilk Test of Normality – Number Correct Scores

Number Correct		
Year	Looping	Traditional
2011	.181	.063
2012	.211	.255
2013	.522	.348
2014	.168	.188

Table 8

Shapiro-Wilk Test of Normality - Scale Score Distribution

Scale Scores		
Year	Looping	Traditional
2011	.686	.847
2012	.100	.000
2013	.059	.000
2014	.861	.258

A Mann-Whitney U test was then conducted to obtain mean or average rank scores for each year to provide a *U* score, *z*-score, and *p* score. A significance level of 0.05 and a critical confidence interval of 95.0 were applied. The statistical significance (*p*-value) as well as substantive significance (effect size), are essential results to be reported (Sullivan & Feinn, 2012). The effect size was then calculated by conducting a Cohen's *d* test to obtain the rank value. Cohen (1988) suggested effect sizes of < 0.2 are considered small; 0.5, medium; and 0.8, large.

Table 9

Effect Size Table

Size of Effect	*d*	% variance
Small	.20	1%
Medium	.50	10%
Large	.80	25%

Mann-Whitney U tests were conducted on ELA TCAP scale scores for the three years (2011-2013) prior to the implementation of looping to determine if statistical differences in number correct scores were present prior to the actual looping experience. As illustrated in Table 7, *p*-values for each year were greater than the significance level of .05 for both settings. Therefore, differences in mean scores for ELA TCAP assessment scores for the traditional group were not statistically significantly different from those of the looping group for either year.

Table 10

Mann-Whitney U Test 2011-2013 Scale Scores

Year	Setting	*M*	*U*	*z*	*P*
2011 Grade 4	Looping	83	3,409	.715	.474
	Traditional	78			
2012 Grade 5	Looping	84	3,513	1.072	.284
	Traditional	77			
2013 Grade 6	Looping	85	3,585	1.316	.188
	Traditional	76			

Mann-Whitney U tests were conducted on ELA TCAP number correct scores for the three years (2011-2013) prior to the implementation of looping to determine if statistical differences in number correct scores were present prior to the actual looping experience. As illustrated in Table 8 *p*-values for each year were greater than the significance level of .05 for both settings. Therefore, differences in mean scores for ELA TCAP assessment scores for the traditional group were not statistically significantly different from those of the looping group for either year.

Table 11

Mann-Whitney U Test 2011-2013 Number Correct Scores

Year	Setting	*M*	*U*	*z*	*P*
2011 Grade 4	Looping	83	3,411	.720	.471
	Traditional	78			
2012 Grade 5	Looping	84	3,469	.920	.357
	Traditional	77			
2013 Grade 6	Looping	83	3,435	.804	.421
	Traditional	77			

The null hypothesis for each research question was tested with a significance of $p = .05$.

Research Question 1: Is there a statistical difference between scale scores on the standardized ELA TCAP assessment for students who looped and their peers in a traditional classroom setting?

$H_0$1: There is no statistical difference between scale scores on standardized ELA TCAP assessment scores for students who looped and their peers in a traditional classroom setting.

H_A1: There is a statistical difference between scale scores on standardized ELA TCAP assessment scores for students who looped and their peers in a traditional classroom setting.

To test the null hypothesis ($H_0$1), a Mann-Whitney U test was run to determine if a statistically significant difference existed in mean 2014 ELA scale scores for looping and traditional classroom settings. Distributions of the scale scores for looping and traditional groups were similar, as determined by Shapiro-Wilk's test results. Scale scores did not produce a statistically significant difference between looping (M = 733) and traditional (M = 725), U = 3,726, z = 1.796, p = .072, using an exact sampling distribution for U (Dineen & Blakesley, 1973). Therefore, the null hypothesis was not rejected. Further, effect size value r = .141 suggested that looping had a small effect (Table 9) on 2014 ELA TCAP scale scores.

Research Question 2: Is there a statistical difference in the number correct scores on the standardized ELA TCAP assessment for students who looped and their peers in a traditional classroom setting?

$H_0$2: There is no statistical difference in number correct scores on the standardized ELA TCAP assessment for students who looped and their peers in a traditional classroom setting.

H_A2: There is a statistical difference statistical in number correct scores on the standardized ELA TCAP assessment scores of students who looped and their peers in a traditional classroom setting.

To test the second null hypothesis ($H_0 2$), a Mann-Whitney U test was run to determine if a statistically significant difference in 2014 ELA number correct average rank scores existed for looping and traditional classroom settings. Distributions of the number correct scores for looping and traditional groups were similar, as assessed by visual inspection. Number correct scores did not produce a statistically significant difference between looping (*M* = 88*)* and traditional *(M* = 73*), U* = 3,738, z = 1.837, *p* = .066, using an exact sampling distribution for U (Dineen & Blakesley, 1973). Therefore, the null hypothesis was not rejected. Further, effect size value *r* = .144 suggested that looping had a small effect (Table 9) on 2014 ELA TCAP number correct scores.

Findings of the Study

The two groups received ELA instruction in the same middle school between the years 2013 and 2014. Participants in the looping classroom setting received instruction from the same teacher during the 2013 (sixth grade) and 2014 (seventh grade) school years. Participants in the traditional classroom setting received instruction from two different teachers during their sixth and seventh grade years. To determine if statistically significant differences in average rank ELA TCAP scores existed between groups, a Mann-Whitney U test was conducted. Results from 2014 ELA TCAP scale and number correct scores indicated that there was no statistically significant difference in median

scores between the looping and traditional classroom setting. Therefore, this study failed to reject both of the null hypotheses (H_O1 and H_A2) of the study.

Furthermore, a Mann-Whitney U test was also conducted for ELA TCAP scale and number correct scores of the same participants for the 2011-2013 tested years. The purpose of testing these years was to determine if a statistical difference in median scores already existed for these groups prior to the looping experience. Findings from these years also indicated no statistical difference between the two groups before the looping experience. As such, it is determined that the looping experience in this study did not have an impact on increasing seventh grade ELA TCAP proficiency.

The Tennessee Department of Education determines the progress of each district and school based on the percentage of students scoring in the proficient and advanced levels (Table 4). Schools are expected to exceed the prior year's proficiency level by at least 6% in each subject area. The Tennessee Department of Education utilizes the TCAP assessment as its standardized assessment tool to monitor the rate of AYP as mandated by NCLB. The TCAP assessment is administered in ELA, math, science and social studies to all students in grades 3-8 in April of each year. The Tennessee Department of Education sets cut scores in terms of number correct answers and scale scores to determine student proficiency levels. Adequate yearly progress is determined by the percentage of students that perform in the proficient or advanced ranges. Results of Mann-Whitney U tests conducted on ELA TCAP assessments from 2011-2014 indicated

average rank scale and number correct scores did not reveal a statistically significant difference for any year tested.

The findings of this study indicated a need to search for another alternative for school and district level administrators to consider as a solution to the problem of low ELA TCAP proficiency in middle schools. As a result, the concept of continuous school improvement surfaced during an additional search for effective strategies and interventions to improve student proficiency. In order to improve schools must first analyze existing school practices and interventions to determine what "is" and "is not" working to meet the needs of students being served, versus adding additional practices or interventions (Bernhardt, 2013). Additionally, schools must implement structures of gathering and analyzing data to monitor and adjust school programs and processes to ensure learning for every student (Bernhardt, 2013).

Assumptions and Limitations

Assumptions

The NCLB Act (2002) mandates that all teachers must hold highly qualified teacher certification status to teach a content area. One assumption was that students included in the population sample have received instruction by highly qualified teachers. It was assumed that the TCAP assessment is valid and reliable based on the procedures utilized by the Tennessee Department of Education to ensure validity and reliability of the TCAP assessment. It was also assumed that students received instruction using the same ELA curriculum and teaching strategies.

Limitations

The research design itself presents one limitation of this study. According to Johnson and Christensen (2012) ex post facto research designs, examine only the relationships between two variables, and do not conclude a causal relationship. Therefore, the results of this study were limited to finding an association between classroom setting and achievement on the seventh Grade ELA TCAP assessment. This study was limited to one middle school and included data for students in one looping and one traditional classroom setting.

Scope and delimitations

The scope of this study included seventh-grade students who were enrolled in one middle school during the 2012-2013 and 2013-2014 academic school years. The population and sample of participants included only African American students. The study will seek to determine the association of classroom setting and achievement on the ELA TCAP assessment between two groups of students. The study is limited to the ELA TCAP assessment and is delimited by the use of ex post facto data archival data.

Role of the Researcher

I was a Title I Professional Learning Coach in an elementary school within the local school district during the time period of the study. I do not have supervisory responsibilities for the faculty members employed at the middle school. I did not participate in the implementation, training, or instruction of the looping classroom.

Confidentiality

To ensure confidentiality of all participants in this study, the protocols established by the Walden University IRB for conducting research were followed. Additionally, the NIH training on protecting human research participants has been completed. Archival data were used, eliminating the need to secure permission or consent from parents or assent from participants. To protect student identities, names were removed from TCAP scores. All students were assigned numbers. For optimal privacy and security, all archival data requested were locked and stored in a file cabinet located in a secured room used to store testing materials. Data files were not saved on a computer/laptop, but were stored on a USB flash drive that only the researcher will had access to.

The data collection process and analysis began after IRB approval from Walden University was granted. Letters of consent were include a clause to allow participants to opt out of the project study at any time. Appropriate district and building level administrator approval was requested to ensure compliance of ethical and confidentiality guidelines.

Conclusion

This non-experimental ex post facto quantitative project study compared classroom settings (looping and traditional) and achievement of seventh grade students on the ELA TCAP assessment. Mann Whitney U tests were conducted for the 2011-2014 ELA TCAP scale and number correct scores. The null hypotheses were tested, and retained for both research questions. A small effect size was found, which further

sustained that looping did not make a statistically significant difference in 2014 ELA TCAP scale and number correct scores in this one study. These findings indicated a need to look beyond the use of looping as an intervention to improve ELA TCAP in middle schools. The results of additional research lead to a recommendation for school and district level administrators to consider using two continuous school improvement models as a solution to increasing ELA TCAP proficiency in middle schools.

In Section 2, I explained the methodology used to test two research questions guiding the outcome of this project study. A discussion of the research design was presented. A description of the setting, sample, and population were also provided. To ensure compliance with ethical procedures, the measures taken to ensure validity and reliability, protection of participants, as well as assumptions and limitations were also explained. This section concluded with an analysis of the findings resulting in a recommendation for school and district level administrators to consider using continuous school improvement as a strategy for increasing ELA TCAP proficiency and overall student learning in the local middle.

Section 3: The Project

Introduction

The purpose of this study was to assess the practice of looping in middle school by comparing achievement on the 2014 seventh grade ELA TCAP scale and number correct scores between students in a 2-year classroom looping setting and their peers in a traditional classroom setting. As data analysis revealed, there was not a statistically significant difference in average rank 2014 seventh grade ELA TCAP scale and number correct scores between the two groups of students. Furthermore, effect size values further validated that looping, in this one study, had a small effect on 2014 seventh grade ELA TCAP scale and number correct scores.

Because the null hypothesis was retained for both research questions, the project chosen as an outcome of this study was a white paper with recommendations for implementing continuous school improvement models in low-performing middle schools within the district. This section details the description and goals, rationale, supporting literature, implementation, evaluation, and implications for social change resulting from the recommended project, a white paper.

Descriptions and Goals

The project was a white paper that reported the findings of a comparison of ELA TCAP assessment scores between classroom settings (both looping and traditional). Although the intent of this study was to address the problem of low ELA TCAP proficiency in middle schools, the recommendation of implementing continuous school

improvement models could be beneficial for improving proficiency in all subject and grade levels. The white paper was appropriate for this purpose based on the short, clear, and concise reporting format.

The first goal of this project was to provide the findings of this study, which concluded that looping students did not have an impact on increasing student achievement on the seventh grade ELA TCAP assessment in this one study. The next goal was to recommend the concept of continuous school improvement as a potential solution to address the aforementioned problem and increase student performance on TCAP assessments. The third goal of this project was to provide an action plan to facilitate the process of implementing continuous school improvement in high priority and focus middle schools. The white paper includes an introduction, a description of the problem, the study's findings, recommendations, conclusions, and references.

Rationale

The Tennessee Department of Education determines the progress of each district and school based on the percentage of students scoring proficient or advanced on TCAP assessments, administered in April of each school year Tennessee Department of Education, 2014). Schools are expected to exceed the prior year's proficiency level by at least 6% in each subject area (Tennessee Department of Education, 2014). The Tennessee Department of Education (2014) sets cut scores in terms of number correct answers and scale scores that determine student proficiency levels (Table 8). Adequate yearly progress

is determined by the percentage of students that perform in the proficient or advanced ranges (Tennessee Department of Education, 2014).

The purpose of the quantitative, ex post facto study, which led to the white paper project was to find an effective strategy to address the problem of low ELA TCAP proficiency in middle schools located within an urban school district located in Tennessee. In the study, I sought to compare achievement on the 2014 ELA TCAP assessment of seventh grade students in two classroom settings to determine if a statistically significant difference in scores existed between groups. Results of Mann-Whitney U tests conducted on 2014 seventh grade ELA TCAP assessments scores found no statistically significant difference in median scores. Additionally, Mann Whitney U tests conducted on ELA TCAP assessment scores from 2011-2013 revealed no significant differences in the average ranked for students who participated in looping classrooms compared to those who did not.

The white paper is intended to provide information to organizations and groups, such as school and district level administrators, who are seeking to find solutions to an identified problem (Sakamuro, Stolley, & Hyde, 2012). White papers address major problems and issues by using data to provide a synopsis of research studies (Graham, 2013b). A white paper was chosen for this project to address the problem of low middle school ELA TCAP proficiency scores within the local district. This project is intended to provide school and district level administrators with a framework for implementing two continuous school improvement models. Implementation of continuous school

improvement models could potentially result in improving teaching for every teacher and learning for every student through the comprehensive use of data.

According to Bernhardt (2013), continuous school improvement plans based on multiple measures of data have the potential to move an entire school system forward more efficiently and effectively. Assessments play an important role in how students learn, their motivation to learn, and how teachers teach (Bernhardt, 2013). The 8-step continuous improvement process allows schools to use formative assessments to measure what students know, what teachers are teaching, and which students need extra help on identified skills and concepts (Bernhardt, 2013; Ainsworth & Viegut, 2015).

Review of the Literature

The literature review for this project begins with a discussion of the purpose, format, and content of a white paper. An overview of the concept of continuous school improvement is presented, followed by a summary of the plan-do-check-act, multiple measures of data, and 8-step continuous improvement models. The literature reviewed in this study was obtained through a comprehensive search of several databases, which included ERIC, EBSCOhost, Education Research Complete, Education: a SAGE full-text database, and ProQuest Central. Search terms included, but were not limited to: *white paper, grey literature, continuous school improvement models, increasing student proficiency, data analysis, data models, assessments, PDCA, multiple measures of data,* and *8-step continuous improvement process.*

White Paper

The term, "white paper," originated in the British government as a means to describe an extensive written statement of government policy. White papers were defined as "a statement of official government policy with background documentation" (Canright, 2011, p. 5). The term, "white paper," was adopted in the United States, and defined as a report too short to be bound as a blue book (Canright, 2011). White papers are intended to give recommendations that help create change (Click, 2011). Historically, white papers have been used in the business sector as a tool to attract new customers and increase sales to existing customers (Canright, 2011). The white paper has recently become an effective format to inform school and district administrators, teachers, and community stakeholders regarding a problem and possible solutions (Hoffman, 2013a, 2013b, 2013c).

The purpose of a white paper is to advocate that a certain position, or solution, is best for a particular problem (Sachiko, Stolley, & Hyde, 2012). The white paper is often used as a professional tool used to transmit information to a targeted audience. The white paper genre provides an easy to read format, which appeals to many readers (Sachiko, Stolley, & Hyde, 2012). White papers advocate a position, report results, present an argument, and most of all give the reader valuable information to make informed decisions (Cainright, 2011).

White papers include introduction/summary, background/problem, solution/ recommendation, and conclusion (Sachiko, Stolley, & Hyde, 2012; Canright, 2011). The

introduction of the white paper is intended to provide a summary allowing the reader to grasp the purpose of the white paper (Sakamuro et al., 2012). White papers include general background information related to a problem or issue allowing the reader to make decisions based on the understanding of facts (Sakamuro et al., 2012). My white paper addressed the problem of low ELA proficiency in middle schools, and how this problem is impacting school the amount of schools being placed in focus and priority school status.

My white paper provided recommendations for implementing two continuous improvement models in middle schools as a strategy for increasing student learning and proficiency on TCAP assessments. The conclusion of a white paper is intended to enhance the reader's understanding of the link between the problem and recommendations (Sakamuro, Stolley, & Hyde, 2012). My white paper summarizes how the presented recommendations could aid in improving proficiency in all content areas. Additionally, the conclusion in my white paper emphasized the potential impact of improving the AYP status of all schools as a result of implementing continuous improvement models.

Concept of Continuous School Improvement

Continuous school improvement can refer to a school, district, or other organization's ongoing commitment to quality improvement efforts that are evidence-based, integrated into the daily work of individuals, contextualized within a system, and iterative (Park et al., 2013). At the classroom level, continuous school improvement may

refer to using timely, accurate data to regularly inform and improve teacher practice. At a school or district level, continuous school improvement may refer to ongoing efforts to improve operational practices and processes related to efficiency, effectiveness, and student outcomes (Best & Dunlap, 2014). A continuous school improvement approach involves addressing fewer problems more effectively by systematically testing potential solutions against specific, measurable goals (Bernhardt & Herbert, 2011). The continuous school improvement concept also encompasses the general belief that improvement is not something that starts and stops, but is something that requires an organizational or professional commitment to an ongoing process of learning, self-reflection, adaptation, and growth (Hidden Curriculum, 2014).

Continuous school improvement involves a cyclical approach to problem solving:

- it allows relevant actors to reflect on their work,
- identify problem areas,
- pilot potential solutions to those problems,
- observe and evaluate interventions, and
- adapt interventions based on data collected (Flumerfelt & Green, 2013).

The Deming wheel or Deming cycle has been used to improve student learning in several schools and districts (Hinckley, 2012). The Deming cycle is more commonly referred to as plan-do-check-act (PDCA). The PDCA cycle is a systematic series of steps for gaining valuable learning and knowledge for the continual improvement of a product or process (Bernhardt, 2013; Deming, 1982; Deming, 1991; & Deming, 2015).

The PDCA cycle includes four stages:

- Plan: A continuous improvement team studies a problem that needs to be solved, collects baseline data on that problem, elaborates potential solutions to that problem, and develops an action plan.
- Do: The team implements its action plan, collects data on its intervention, and records developments.
- Check: The team gauges the success of the intervention by comparing baseline and new data, analyzes results, and documents lessons learned.
- Act: The team determines what to do with its results. Depending on the success of its intervention, the team may choose to adopt, adapt, or abandon its tested solution (Gorenflo & Moran, 2010; Bernhardt, 2013).

Educational organizations that have implemented continuous school improvement plans have achieved a range of performance goals, including decreased failure rates, increased homework completion rates, increased Advanced Placement exam participation, increased kindergarten readiness, increased college enrollments, and more efficient use of funds (Flumerfelt & Green, 2013; Park et al., 2013).

Continuous School Improvement

Continuous school improvement requires a comprehensive look at all the school's data to ensure learning growth for every student. Schools need to rethink current structures as opposed to adding to existing strategies and interventions (Bernhardt, 2013). Continuous school improvement requires the implementation of structures for gathering,

analyzing, and reporting multiple measures of data (Bernhardt, 2013). To ensure that effective teaching spreads, districts and schools must create professional learning systems in which teams of teachers, principals, and other professional staff members meet several times a week to engage in a continuous cycle of improvement (Learning Forward, 2011). Continuous school improvement is based on a comprehensive assessment of student, teacher, and school learning needs. Teams use data to better understand student learning needs and examine research evidence to identify effective classroom practices, such as lesson studies, examining student work, performing action research, and developing formative assessments (Learning Forward, 2011).

Multiple measures of data. The use of multiple sources of data offers a balanced and more comprehensive analysis of student, educator, and system performance than any single type or source of data can (Learning Forward, 2011). Multiple measures of data fall into four categories: demographic, perceptions, student learning, and school processes (Bernhardt, 2013). Demographical data such as student enrollment, age, gender, ethnicity, and special needs populations can be used to observe trends and glean information for purposes of prediction and planning (Bernhardt, 2013).

School climate is defined as the shared beliefs, values, and attitudes that shape interactions between the students, teachers, and administrators (Bradshaw, Michell & Leaf, 2010). School climate should be a target of school improvement initiatives, due to the association between school climate and positive student outcomes (Bradshaw, Michell & Leaf, 2010). Perception data is important to continuous school improvement

because perceptions set the tone of the school climate (Bernhardt, 2013)**.** Student perceptions should be critical information for teacher improvement as they contain information that may not be accurately obtained in classroom observations, and students have the ability to provide perspectives that the principal or evaluator may not be able to offer (Barge, 2013). Interviews, focus groups, questionnaires, and self-assessments are data sources that school can use as approaches to understanding perceptions. Teachers should use individual student perception data as a tool to help teachers continuously improve and set independent learning goals for themselves and their instructional practice (Barge, 2013).

Student learning. Student learning data is probably the most commonly used data source used in schools (Bernhardt, 2013). Student learning data describes the results of an educational system in terms of standardized tests results, grade point averages, standards assessments, and authentic assessments (Bernhardt, 2013). Continuous school improvement requires a synthesis of student learning data such as assessments, activities, and grades in all subject areas, disaggregated by student demographic groups, by teachers, by grade levels, and by following the same groups of students (cohorts) over time (Bernhardt, 2013). Student learning data identifies which students are not proficient, and by how much each student must improve to be proficient. Additionally, analyzing student learning data across grade levels shows if a school has instructional coherence, as well as an alignment of curriculum, instruction, and assessment within and across grade levels (Bernhardt, 2013).

Assessments are the most commonly used forms of student learning data (Ainsworth & Viegut, 2015; Bernhardt, 2013). Assessments are used as measurements "of" and "for" learning (Ainsworth & Viegut, 2015). Summative assessments, such as the TCAP assessment administered in the state of Tennessee are used as assessments "of" learning after instruction has occurred, and support letter grades, and/or levels of proficiency (Ainsworth & Viegut, 2015).

On the other hand, formative assessments are intended as a form of assessment "for" learning. This type of assessment is an ongoing process in which classroom teachers assess students' knowledge and understanding with activity-embedded, brief, small-scale tasks that are linked directly to the current curriculum topic (Ainsworth & Viegut, 2015; Heppen et al., 2010). Assessments "for" learning help teachers gain insight into what students understand in order to plan and guide instruction, and provide helpful feedback to students (Bernhardt, 2013). Formative assessments are used as a tool to inform and adjust instruction. Formative assessment results are intended to: accurately interpret student learning needs, set individual classroom goals as well as grade- and course-level team goals for student improvement, identify and share effective teaching strategies to accomplish goals, plan ways to differentiate instruction and correct student perceptions, and inform students about their current progress so they can adjust their learning methods and strategies (Ainsworth & Viegut, 2015).

Data Driven Decision Making and school processes. The conception of Data Driven Decision Making (DDDM) recognizes that decisions may be informed by

multiple types of data, including: input data, such as school expenditures or the demographics of the student population; process data, such as data on financial operations or the quality of instruction; outcome data, such as dropout rates or student test scores; and satisfaction data, such as opinions from teachers, students, parents, or the community (Mandinach, 2012). DDDM in education refers to teachers, principals, and administrators systematically collecting and analyzing various types of data, including input, process, outcome and satisfaction data, to guide a range of decisions to help improve the success of students and schools. A data-driven approach is retrospective as it starts with empirical evidence of which processes are working, and which are not to draw conclusions based on those diagnostic reviews (Fairchild et al., 2014). Diagnostic reviews are a critical component of DDDM in continuous school improvement. Diagnostic reviews allow schools and school systems to look beyond performance data and analyze a myriad of school processes that may be contributing to the state of the school's performance data (AdvancED, 2011).

School processes include methods and intervention actions administrators take regarding the curriculum, instruction, and assessment strategies used to teach the content that students are expected to learn (Bernhardt, 2013). Understanding the schools' processes is the first step in clarifying how a school is achieving its goals and getting its results. School processes are important to continuous school improvement because they are what produce school and classroom results. School process data tell about the way the school works, indicates how results are being obtained, and indicates what is working and

what is not working in the school (Bernhardt, 2013). School processes are the only measures over which a school has almost complete control in an education setting. To get different results, schools need to change the processes to create better results. To change the processes, school staff must agree on the impact of the processes being implemented to determine which processes should be modified or removed to achieve desired outcomes (Bernhardt, 2013).

Shared Visions

Continuous school improvement requires schools to focus on a shift from compliance to commitment by implementing a shared vision in a manner that will lead to improved teaching and ultimately increased learning for all students (Bernhardt, 2013). The school's vision, goals, and student expectations must reflect the core values and beliefs of the staff, merged from personal values and beliefs. After analyzing multiple measures of data and determining what is and is not working and why, school staff membrs need to study and discuss the implications of teaching current and future student populations. Additionally, staff members need to identify changes needed in the school's curriculum, instruction, assessment, and environmental approaches to implement best practices, and then create a vision for where they want to go (Bernhardt, 2013).

8-step continuous improvement process

The 8-step continuous improvement process was created to provide educators with a significant tool in providing the structure and accountability needed for schools and school districts to close achievement gaps as measured by standardized test scores

(Barskdale, 2003, 2007; Hinckely, 2012). Barksdale embedded the 8-step continuous improvement process (Table 11) into the four parts of the PDCA instructional cycle (Barksdale, 2002, 2007).

Table 12

PDCA and 8-Step Continuous Improvement Process

Plan	Do	Check	Act
		8-step continuous improvement process	
1. Data Disaggregation	3. Instructional Focus	4. Assessment	7. Tutorials
2. Instructional Calendar		5. Maintenance 6. Monitoring	8. Enrichment

Step 1: Data disaggregration. Using data in the classroom is essential, but equally important is allotting time for teachers to learn from each other. Collaboration is a vital component in the implementation of data-driven practices, such as discussing pressing problems around student learning, or working together to find possible instructional strategies to remediate student-learning concerns (Jackson, 2013).

Principals and teachers learn to analyze test results to determine state standards, objectives, and/or skills have been mastered or non mastered by all students. At the beginning of each school year, the prior year's summative assessment data are disaggregated by school, class, teacher, student, socioeconomic status, and test content. This step is to determine which student needs are being met, and which are not. An analysis to identify which teachers are successful with which standards as well as other

factors that could potentially influence test results such as attendance, grade distribution, dropout rates, and behavior issues are explored (Barksdale & Davenport, 2003).

Data disaggregation in the 8-step process requires quality team planning (Barksdale & Davenport, 2003). Grade-level/subject area teachers meet on a weekly basis to discuss data, collaboratively plan, and share best practices for teaching standards, objectives, and/or skills. During this time teachers identify mastered and non-mastered content area objectives by analyzing individual test items that require improvement, and identify how many students passed/failed specific objectives. Teachers also place skills and objectives in which students scored the lowest as high priority (Barksdale & Davenport, 2003).

Data walls are used throughout the school year to provide visual displays of student progress on various assessments. Data walls include a color-coding system used by each teacher to indicate the level of performance for every student. Students who are performing well above expected levels are coded with blue; green indicates students who are on-track; yellow is used for those who are just below standard and need assistance; and red reflects students who have not mastered standards and need intensive support. Data walls are updated after each summative and formative assessment to assist teachers in identifying students in need of intervention (Barksdale & Davenport, 2003).

Step 2: Instructional calendars. Step 2 of the 8-step process involves the creation of an instructional calendar, which is reviewed and modified annually based on data analyses of assessment results from the previous year. The instructional calendars

divide each grading period into blocks, and indicate when formative and summative assessments will be administered, and which skills will be covered. As part of the 8-step process, instructional calendars are made available by visible display to teachers, students, parents or community members who may be in the school building (Barksdale & Davenport, 2003).

Step 3: Instructional focus. The instructional focus within the 8-step continuous improvement process is guided by the instructional calendar. Research-based best practices are reliant on instruction to individuals, small groups or the whole class driven by the intersection of the instructional calendar and data results. Teacher mentoring and support is provided to support the instructional focus, continuous professional development opportunities, collaborative planning, and sharing of best practices. Additionally, classroom walkthroughs are routinely conducted to ensure that teachers are addressing objectives prioritized by the instructional calendar, employing effective strategies, and addressing needs identified through the analysis of formative assessment results (Barksdale & Davenport 2003).

Step 4: Assessment. Accountability reforms for student learning have created an increased emphasis on the belief that assessments can be an important lever for improved teaching and learning (Heppen et al., 2010). Regular use of assessment data provide educators with the ability to:

- Better understand the academic needs of individual students, and respond to these needs by targeting instruction, support, and resources accordingly

- Better understand the instructional strengths and weaknesses of individual teachers, and use this information to focus professional development (PD), peer support, and improvement efforts
- Support and facilitate conversations among teachers and instructional leaders regarding strategies for improving instruction (Heppen et al., 2010).

Within the 8-step continuous improvement process, formative assessments are administered monthly to inform progress throughout the year. These formative assessments are intended to: check for student understanding, tell which students are learning and which need more help, chart student progress, adjust teaching methods to achieve better results, and modify the instructional calendar as needed for re-teaching or acceleration. After each formative assessment, school administrators and teachers engage in half-day "learning log" data meetings, to analyze data results. Teachers complete "learning logs", which detail classroom formative assessment results by skill and objective to examine outcomes, aggregate and disaggregate results, discuss what's working, and to determine where more effort is needed (Barksdale & Davenport, 2003).

Steps 5 and 6: Tutorials and enrichment. "Learning Log" (data) meetings are used to assist teachers in determining next steps of intervention for students who have not mastered standards, as well as determining steps of enrichment for students demonstrating initial mastery. A school-wide 30-minute success period is utilized to provide such intervention or enrichment based on formative assessment results. During

the success period, students needing intervention are assigned to content area teachers in small groups, and students receiving enrichment are assigned to non-content area teachers. During the 30-minute success period tutorials are used through games, manipulatives, graphic organizers, and technology to help students who did not master assessed skills, standards, or objectives. After concepts have been re-taught, students are re-assessed. Those who master skills assessed participate in enrichment activities that provide intellectual challenges (Barksdale & Davenport, 2003).

Step 7: Maintenance. The 8-step process tends that maintenance is a key in any long-range strategy to improve schools, and it is an especially powerful tool for at-risk students. In the 8-step process review and maintenance of what has been learned begins immediately after a new idea has been introduced and continues throughout the school year. Students maintain skills learned through periodic and cyclical review of skills taught during class starters, daily oral/math activities, and learning software. Additionally, formative assessments include skills previously taught and tested to ensure students are maintaining previously taught skills and concepts (Barksdale & Davenport, 2003).

Step 8: Monitoring. Ongoing monitoring of the 8-step continuous improvement process is conducted through process checks. Process checks are conducted to help guide that school/district on its road to continuous improvement. During process checks, issues involved in the process implementation of the 8-step continuous improvement process are discussed, and solutions are generated through the development of an action plan. The

principal holds responsibility of monitoring the 8-step process at every step. The 8-step process requires the principal to:

- Conduct classroom walkthroughs on a regular basis
- Hold one-on-one student Test Talks
- Conduct monthly Learning Log meetings with grade-level/content area teachers
- Monitor grade-level/department-level team planning (data) meetings
- Ensure that Data Walls are continuously updated
- Oversee implementation of Success Period
- Celebrate success with teachers, students, and parents (Barksdale, 2003).

The 8-step continuous improvement process has been implemented in several schools and districts resulting in increases in standardized test scores (Anderson, 2001; Brazosport Independent School District, 2015; & Steele, 2013). In 1991-1992, after the realization that students in low-income areas of Brazosport Indendent School District (BISD) routinely failed standardized tests in which students in more affluent areas of the district routinely passed, the district began to seek a solution to close the achievement gaps. The district began to analyze data of teachers experiencing the most success with economically disadvantaged students. The results lead to the school-wide, and eventually district-wide implementation of an 8-step continuous improvement process created by third grade teacher Mary Barksdale. By 1998–1999, BISD had received national accolades from public and private organizations for showing monumental gains resulting

91% of students in all demographic groups achieving passing scores in reading, math, and writing (Anderson, 2001).

In 2002, the Metropolitan School District of Warren Township located in Indiana, a K-12 urban district began to pilot the 8-step process in its lowest performing schools. From 2002-2009, all schools in which the 8-step process cycle had been implemented experienced significant gains in ELA and math ranging from 9.6% to 35.3%, exceeding Indiana's growth rate each year. As a result of the significant gains experienced in pilot schools between 2002-2009, the Indiana Department of Education implemented the 8-step process into 26 other low-performing elementary and middle schools (Davenport & Hinckley, 2012). Within one year of implementation 17 of 26 schools increased ELA and math proficiency on standardized ELA and Math assessments. In BISD, all middle schools have sustained ELA proficiency for the last five-years (2009-2014) ranging from 84%-95%. Additionally, 2014 state report cards indicate BISD in Texas, and Metropolitan School District (MSD) in Indiana have sustained acceptable proficiency and growth in schools that have implemented and continue to use the 8-step continuous improvement (TEA, 2015 & IED, 2015).

Steele (2013) analyzed literacy/reading TCAP scores to determine if the 8-step continous improvement process provided a framework to raise literacy/reading achievement and focus educators in identifying high yield strategies. Quantitative data were collected from student results on the ELA TCAP assessments for school years 2010-2011 and 2011-2012. The results showed practical and significant differences in

student growth as expressed by TVAAS scores. Furthermore, effect sizes were above minimum recommended values for schools that partially and fully implemented the 8-step continuous improvement process versus schools that did not implement the process.

Implementation of the 8-step process as a commitment to increase student achievement is viewed nationally as a significant tool in providing the structure and accountability required of schools and districts (Davenport & Hinckley, 2012). As schools and/or districts embark on implementing the 8-step continuous improvement process, organizations must commit to providing the time, culture, and resources for every child to be successful (Anderson, 2001). The 8-step continuous improvement process is intended to be a process of education reform, with the belief that all children can learn, given the proper time and resources (Anderson, 2001).

A common phenomenon in implementing the 8-step continuous improvement process has been for districts and/or schools to contract external consultant companies or individuals to lead and monitor the process (Park et al., 2013). A school improvement consultant, external to the day-to-day responsibilities expected of school leaders and teachers, provides objective and expert guidance to carry out the process of school reform (Laba, 2011). The process of identifying and selecting an external contractor, and then managing the relationship to ensure success deserves careful thought and planning (Hassel & Steiner, 2012).

Another approach to implementing continuous school improvement is through professional learning communities (PLCs). PLCs can best be described as a collaborative

culture; a culture in which collaborative teams work to ensure all their students learn (Eaker & Keating, 2011). PLCs are intended to increase educator effectiveness and results for all students occurs within learning communities committed to continuous improvement, collective responsibility, and goal alignment (Learning Forward, 2015).

A professional learning community is a group of connected and engaged professionals who are responsible for driving change and improvement within, between and across schools that will directly benefit learners. PLCs that occur within learning communities provide an ongoing system of support for continuous improvement and implementation of school and system wide initiatives (Learning Forward, 2015).

Improvement through professional learning communities is only possible if educators collaborate and focus on the work of improving learning and teaching (Harris & Jones, 2010). Improvement through professional learning communities means focusing on improving learning outcomes or better learning. It means addressing the hard questions about classroom practice and actively seeking to change teachers' practice. PLCs apply a cycle of continuous improvement to engage in inquiry, action research, data analysis, planning, implementation, reflection, and evaluation (Harris & Jones, 2010). Principals of professional learning communities are expected to make a seismic shift from being instructional leaders to becoming learning leaders. This role is fulfilled, primarily, by asking the right questions, spending time on the things that will have the greatest impact on student learning and enhancing the effectiveness of collaborative teams. If the leadership capacity of district leaders and principals is, a critical correlate of

effective schools (Eaker & Keating, 2015).

Project Description

The project implementation for this study consisted of researching, writing, and delivering a white paper report. The white paper will be delivered to the principal of the local middle school studied, as well as the local district's assistant superintendent of academics after the project study is successfully completed and degree awarded. Additionally, the white paper will be presented to principals of high priority and focus schools within the local district. The white paper will also be published on the Research and Accountability webpage on the local district's website.

Resources, Supports and Potential Barriers

Implementation and delivery of this project required resources such as the Walden University Library system, to conduct an exhaustive Boolean search for peer-reviewed articles and journals related to white papers and continuous improvement, which returned limited results. As such, the Google search engine was used as a resource to retrieve literature related to white papers, PDCA, continuous school improvement, multiple measures of data analysis, and the 8-step continuous improvement process. The principal of the study site and superintendent of academics will serve as the main resource for implementing this project, a white paper. These administrators have agreed to review this project, and assist in arranging a presentation of the white paper to school level administrators of high priority schools in the local district. Additional resources such as: photocopies of the white paper project, a laptop, projector, and projector screen, and a

facility to conduct the presentation. The superintendent of academics has agreed to arrange a meeting space in the district's Teaching and Learning Center.

A potential barrier to this project would be for school and district level administrators to reject the findings and recommendations of this white paper as a potential solution to increasing student achievement on the TCAP assessment, and/or overall student learning. Additionally, administrators may reject the idea that current practices being utilized in schools are not effective in improving student performance in TCAP assessments. The white paper suggests that implementation of continuous school improvement should be facilitated by an external consultant. Also, additional funds may be required to purchase materials and supplies needed to engage teachers in on-going training related the continuous school improvement. As a result, the potential requirement of funding needed to implement the concepts presented in the white paper could present an additional barrier.

Proposal for Implementation and Timetable

Immediately after Walden University's acceptance and approval of this doctoral project study, the white paper was hand delivered to the principal and superintendent of academics. The superintendent of academics then scheduled a date and time for a presentation of the white paper to be made to school administrators. School administrators will be provided with a hard copy of the presentation. Additionally, a copy of the project study and white paper project was published on the local district's research and accountability webpage on the district's website.

Roles and Responsibilities of Student and Others

For myself as the student, the main responsibility was to provide the research findings, and develop a project to address the problem of low ELA TCAP proficiency in middle schools within the local district. The findings from the research resulting in a white paper recommending the implementation of an 8-step continuous improvement process as a school reform strategy to increase student proficiency on the TCAP assessment. The local district's research analyst was responsible for approving my requests to use district data, and compiled de-identified data needed to carry out the necessary quantitative tests used to answer the research questions in this study. Additionally, the committee chair, second committee member, and University Research Reviewer (URR) provided constructive feedback, to direct the quality of my study.

Project Evaluation

Project evaluations provide a systematic investigation of the worth or merit of a project, and are essential to a continuous improvement process (Frechtling, 2010). Project evaluations also provide information for communicating to a variety of stakeholders, and allows projects to prove their worth (Frechtling, 2010). The goal of this project is to increase student proficiency on ELA TCAP assessments through implementation of continuous school improvement, which constitutes students as stakeholders. This project requires participating teachers and administrators to engage in the process of implementing a continuous school improvement model, which means that teachers and administrators are also identified as stakeholders in this project.

Two main types of project evaluations are formative and summative (Frechtling, 2010 & Evaluation Toolbox, 2010). Formative evaluations are generally any evaluations that take place before or during a project's implementation, with the aim of improving the project's design and performance. Summative evaluations look at the impact of an intervention on the target group, and occurs at the end of project implementation (Evaluation Toolbox, 2010). An outcome based, summative approach will be conducted to evaluate this project. This method was chosen because summative evaluations are often associated with quantitative methods of data collection, and focus more on the outcomes of the project implementation (Frechtling, 2010 & Evaluation Toolbox, 2010).

Student scores from ELA TCAP assessments administered will be utilized as quantitative data to evaluate the outcome of implementing continuous school improvement in participating schools. The intended goal of the evaluation selected is to engage stakeholders (teachers and administrators) in a data analysis to examine TCAP assessment results at the end of the first year of the continuous school improvement model implementation. This data will be used to justify implementing the continuous school improvement model in more schools, identify the need to make modifications to the structure of the model, or discontinue the use of the presented continuous school improvement model.

Implications Including Social Change

Local Community

The ultimate goal of this project was to find a solution to increase ELA TCAP

assessment, and overall reading proficiency in middle schools in the local district. The white paper may result in social change by introducing continuous school improvement models as a phenomenon that could potentially serve as a strategy to increase TCAP proficiency, and aide middle schools in meeting federally AYP goals. As a result, the local district could experience a decrease in the number of middle schools being placed in focus and priority school status, and/or being taken over by ASD or IZone districts. The phenomenon recommended in this project could also result in social change for the local community by increasing the number of students reaching proficiency in ELA, and being prepared for college and career readiness. In turn, the local community could potentially experience an influx in the number of students receiving post-secondary degrees. Lastly, implementation of the recommended continuous school improvement models could potentially lead to improvements in teacher TVAAS levels, resulting in higher Teacher Evaluation Measure (TEM) scores.

Far-Reaching

Although the purpose of the white paper was intended to address low ELA TCAP proficiency in middle schools within the local district, the implementation of the recommended continuous school improvement models could subsequently be used as an effective reform strategy in elementary and high schools to increase proficiency in all subject areas. Even more, to comply with Federal mandates calling for schools and districts to achieve 100% proficiency levels on standardized tests, schools and districts throughout the United States could potentially benefit from the recommendation to

implement the two models of continuous school improvement offered within the white paper. It is my intent to expand my competence in this area, and eventually service schools and districts as an external consultant for continuous school improvement. In doing so, my research on continuous school improvement will become ongoing in my effort to justify this reform as one that has the potential of improving student proficiency.

Conclusion

Section 3 discussed the goals, rationale, supporting literature, implementation, evaluation, and implications for social change of this project. The project, a white paper, included a recommendation of implementing two models of continuous school improvement as a reform strategy to increase ELA TCAP proficiency in middle schools. Literature related to the concept of white paper, continuous school improvement, multiple measures of data, and 8 step continuous improvement process was discussed. Section 3 concluded with an analysis of potential local and far-reaching implications for social change that could result from this project.

Section 4 includes reflections of the study and project development, as well as conclusions resulting from the project. The strengths and limitations of the project are also included. A summary of the knowledge acquired related to scholarship, project development and evaluation, and leadership and change has also been provided. Section 4 concludes with an analysis of self-awareness related to the project's development and implementation.

Section 4: Reflections and Conclusions

Introduction

Section 4 includes reflections and conclusions based on the project. The project's strengths as well as recommendations for remediation of limitations, scholarship, project development, evaluation, leadership, and change are also included. A personal reflection in relation to an analysis as a scholar, practitioner, and project developer are shared. A discussion of the project study's potential impact in the area of social change is also provided. Section 4 concludes with implications, applications, and directions for future research.

Project Strengths

This project study focused on the problem of low ELA TCAP proficiency in middle schools in an urban school district located in West Tennessee. One strength of this project is the white paper report itself. White papers have become an effective format to inform school and district administrators, teachers, and community stakeholders regarding a problem and possible solutions (Hoffman, 2013a, 2013b, 2013c). The white paper presented discussed the problem of how low ELA TCAP proficiency has impacted the local district and offered a recommendation for addressing the problem in an easy to read format. Another strength of this project was that the implementation plan included a presentation to school administrators in high priority and focus schools. This step provides an opportunity to engage in discussion with school administrators to further elaborate on the contents of the white paper. Additionally, engaging with school

administrators and clarifying misconceptions regarding the concept of continuous school improvement could potentially lead to higher levels of "buy in" regarding the use of the suggested reform. The implementation plan of the project includes on-going sessions, facilitated by myself, to support school administrators during the implementation of the continuous improvement process.

Project Limitations

One limitation of this project is the inclusion of only middle school ELA data in the white paper. Another limitation is that invitations to attend the presentation of the white paper will only be extended to school administrators in high priority and focus schools. Another limitation of the project is lack of financial funding available to hire an experienced external consultant to facilitate the process of implementing the continuous school improvement process.

Recommendations for the Remediation of Limitations

One recommendation to remediate the limitations in this project would be to include data from all subject areas and grade levels to further support the impact that low proficiency has on the district in regards to student achievement and school status. Another recommendation would be extend the invitation to attend the presentation to all district and school administrators regardless of school status. The project could have also concentrated efforts on the use of instructional ELA strategies as independent variables, instead of classroom settings. In doing so, the culminating project could have resulted in a handbook of researched-based instructional strategies to improve student achievement

in ELA. Another recommendation to address the problem presented in this study could have been to develop a professional development plan intended to provide training to teachers.

Scholarship

My experience as a doctoral student at Walden University has resulted in extensive growth as a scholar. Through this journey, I have developed a solid foundation of educational research and have improved my ability to identify and interpret peer-reviewed sources to construct research based writing. I have also become competent in reviewing and then synthesizing literature through online databases. Due to the topic of my study, I have improved my ability to use related search words and phrases to locate research related to a topic. My research experience has resulted in further developing my understanding of primary and secondary sources as well.

Through the structure of this doctoral program, I have learned to collaborate and learn in a virtual learning environment. Online programs differ from traditional programs in that the face-to-face collaboration with faculty members and peers does not exist. Therefore, I have learned to use various electronic sources such as email, discussion, chat, and Skype to communicate. As a result, my comfort level with technology has grown tremendously. At the onset of this program, my greatest obstacle was overcoming being intimidated by APA style writing and ensuring that my writing had proper grammar and punctuation. I quickly learned to use reference manuals and online resources to ensure proper formatting to improve my level of scholarly writing at the

doctoral level.

The greatest area that I have grown throughout this process is in my knowledge of the concept of quantitative data. At the recommendation of my committee chairperson, I changed my methodology from a qualitative to a quantitative study. Initially the idea of statistics was very intimidating to me, and I felt as if I was way out of my comfort zone. Through step-by-step research, as well as ongoing guidance and support from my committee members, I have a new outlook on quantitative data. I found myself looking forward to carrying out the steps of the data analysis process and analyzing the data results. Additionally, my coursework at Walden University has improved my competence and confidence as a member of the administrative team at my school. This experience has improved my ability to identify problems and conduct research to seek possible solutions in my professional position as a professional learning coach.

Project Development and Evaluation

The process of solidifying the project type for this study was tedious. In the proposal stage of this study, I had a project idea that included developing a looping handbook to be used by school administrators interested in implementing the looping concept. However, after the data collection and analysis I discovered that a looping handbook would not be the best option for a project. I then thought about creating a professional development workshop to engage teachers in professional learning activities related to effective strategies to implement in looping classrooms. These options were eliminated because I wanted to ensure the development of a project that could be viewed

as more than just another "book" to place on a shelf or more than a mandatory meeting that teachers and/or administrators attended to receive information on a "foreign" topic viewed as invaluable. A white paper was chosen because it provided an opportunity to present facts related to the problem of low proficiency on ELA TCAP assessments in middle schools and provided a recommendation to potentially resolve the problem. The white paper allowed me to present the problem identified in my study, share the findings of the study, and then make a recommendation of a possible solution to the problem.

Initial evaluation of this project will occur during the review and approval to present the white paper from the principal of the study site and superintendent of academics in the local district. Implementation of the project presentation will be evaluated by survey, which will be completed by school level administrators after the presentation of the white paper. Ongoing evaluation of the project will occur through data collected from schools that implement the continuous improvement process recommended in the study. The project will be viewed as successful if school administrators decide to participate in the implementation of the school improvement process. The project will prove to be even more successful if data from participating schools finds improved student performance on TCAP assessments after implementation of the reform.

Leadership and Change

During one of my first courses at Walden University, I identified myself as a transformational leader. For the past 7 years, I have served in the capacity of an

instructional facilitator and professional learning coach. Throughout this time I have had the responsibility of facilitating implementations of various concepts related to instructional practices and school procedures. For the past 4 years, I have successfully facilitated changes in two school settings focused on improving school culture and instructional practices that have resulted in double digit gains on the TCAP assessment in both schools. My ability to lead and serve as a coach, mentor, and supporter to teachers has increased tremendously through the skills and concepts that I have acquired in this program.

Analysis of Self as a Scholar

As a scholar, my intent was to create an original project to address the problem of low ELA TCAP proficiency in middle schools and offer a solution to increase student proficiency. In developing such a project, it was necessary for me to research peer-reviewed literature related to the problem and collect necessary school, district, local, and national data validating the problem. In order to offer a possible solution, the process of developing a project required statistical testing of a possible solution to determine if looping students and teachers together for 2 years resulted in a statistically significant difference in ELA TCAP assessment scores as compared to their peers in a traditional classroom setting. The findings of the study did not indicate a statistically significant difference in achievement. It was then necessary for me to conduct additional research related to improving student learning and proficiency on standardized assessments. Identifying a possible new solution to address the problem was achieved when the

concept of continuous school improvement surfaced in connection with using data to improve student learning and proficiency. As a scholar, I experienced growth in my ability to analyze peer-reviewed and research-based literature to offer a solution to a problem.

Analysis of Self as a Practitioner

As a professional learning coach, engaging in the process of completing this study contributed to my ability to seek research-based practices and facilitate the process of implementing such practices more effectively. Understanding more about implementing change through shared leadership, led to my ability to engage in collaboration with the administrative staff and teachers within my local school setting. During the process of developing the professional development plan for the school, I found that including a team of teachers to identify problems based on data within the school and engaging in collaborative practices of analyzing current studies and literature to support the professional learning often lead to more meaningful professional development sessions.

Analysis of Self as a Project Developer

Based on my enrollment date at Walden University, I was given the option of completing a traditional dissertation or a project study. During my residency at Walden University, I learned that the intent of a project study was to attempt to solve a problem to lead to social change. I selected the project study option because I truly wanted to offer a solution to assist the local school district in improving ELA proficiency. As a project developer, I found it necessary to identify the intended goals and outcomes of the project

prior to creating the project. Clearly stating the project's goals helped me to focus on aligning the contents of the project with the intended goals and outcomes.

Overall Reflection and Impact on Social Change

The mission of Walden University is to "provide a learning experience that encourages them [students] to pursue and apply knowledge in the interest of the greater good" (Walden University, 2015). In the interest of the greater good, this project study addressed the problem of low ELA proficiency as measured by student performance on the TCAP assessment. Schools and districts face increasing levels of accountability for students to perform proficiently. Low performance on TCAP assessments has resulted in schools being placed in focus and priority school statuses and taken over by ASD and IZone school improvement districts. This study could lead to social change by serving as a strategy for schools and districts to implement so that teachers are better able to maximize the level of instruction being provided to ensure learning for every student. On a greater scale, this study has a potential impact on social change throughout the United States. Continuous school improvement models could be a possible solution for improving student learning and proficiency in all content areas at every instructional level.

Implications, Applications, and Directions for Future Research

The intent of this study and culminating project was to address the problem of low ELA TCAP proficiency experienced by many middle schools within the local district in West Tennessee. In this study, I sought to assess the outcome of implementing looping in

a 7th grade ELA classroom quantitatively. The data did not show a statistically significant difference in scale and number correct scores between students who experienced looping classrooms and those who did not, which indicated that looping may not be a suitable solution for improving ELA TCAP proficiency. One implication of this study resulted from an analysis of TCAP scale and number correct scores over a 4-year period. Median performance levels for study participants were at basic levels for each year tested. In order to improve, schools must first understand why and how results are being achieved before plans for improvements can be made (Bernhardt, 2013). Implementation of continuous school improvement models has the potential to provide schools and districts with an understanding of why students have continued to perform below the expected proficiency level.

Schools and districts face increasing accountability to ensure college and career readiness for every student. Findings from the data indicated a need for schools to use a strategy that could assist in identifying students and skills in need of intervention. The 8-step continuous improvement process has the implication of providing schools and districts with a structured cycle of analyzing assessment data to create instructional plans and practices to meet the individual needs of each student. This study and culminating project could also serve as a framework for elementary, middle, and high schools to increase proficiency and overall student learning in all content areas. Finally, the Tennessee Department of Education uses TVAAS scores, based on student TCAP scores, to account for 35% of teacher evaluations. Teacher compensation in Tennessee is based

on teacher evaluation levels. Using continuous school improvement models has implications to increase teacher evaluation levels resulting in higher compensation.

Application of this study and project is recommended for all focus and priority schools within the district. This study and project will be made available through the sharing of the white paper to school and district level administrators during presentations and workshops. The white paper will also be published on the Research and Accountability webpage on the local district's website. Additionally, it is my intent to become a competent consultant to assist schools and districts in implementing continuous school improvement models and processes. As a result, my research on facilitating the implementation of continuous school improvement models and processes will extend beyond the scope of this study. Future research on continuous school improvement is necessary to add to the body of knowledge surrounding its use. Future research will be conducted on schools within the district to analyze TCAP assessment results after implementation of continuous school improvement models in focus and priority schools. This research will be valuable in conducting further research to compare differences in TCAP assessment between schools that implemented continuous school improvement and schools that did not. This research is necessary to monitor the effectiveness of the practice and to support the recommendations for implementing the practice in additional schools.

Conclusion

Section 4 of this project study focused on my reflections and conclusions from the doctoral study journey. Project strengths, limitations, and recommendations for remediation of the limitations of the project were discussed. This section also included my reflections on scholarship, project development, evaluation, leadership, change, myself as practitioner, and the impact that this study may have on social change.

In this ex post facto study, I used archival data from ELA TCAP assessments to determine the outcome of implementing looping in seventh grade classrooms. Findings from the study did not indicate a statistically significant difference in performance on the ELA TCAP assessment. Further analysis of the data resulted in the need to explore other alternatives to address the problem of low ELA TCAP proficiency in middle schools. The outcome of further research resulted in a white paper project presenting the problem, study findings, and recommendations of implementing continuous school improvement intended for school and district level administrators. Although this study was limited to the use of data from one middle school, the results and recommendations made have implication for increasing proficiency and student learning in all content areas at every school level.

References

AdvancedED. (2011). Enhancing continuous improvement and improving student achievement: An overview for state and federal policymakers. Retrieved from www.advanc-ed.org.

Ainsworth, L. & Viegut, D. (2015). *Common formative assessments 2.0.* Thousand Oaks, CA: Corwin Press.

Allen, J. (2010). Predictor variable. In Neil J. Salkind (Ed.). *Encyclopedia of research design* (pp. 1079-1082). Thousand Oaks, CA: SAGE Publications, Inc. doi: 10.4135/9781412961288. n329

Almon, S., & Feng, J. (2012). Co-teaching vs. solo-teaching: Effect on fourth grader' math achievement. Paper presented at Mid-South Educational Research Association Annual Conference, Nov. 8-10, 2012. Lexington, Kentucky.

Anderson, G.E. (2001). *Education reform success stories*. Amherst, MA: National Evaluation Systems.

Anfara, V., & Mertens, S. B. (2012). Capacity building is a key to the radical transformation of middle grades schools. *Middle School Journal, 43*(3), 58-64.

Baker, K., & Narula, B. (2012). The connected adolescent: Transitioning to middle school. *Leadership, 41*(5), 16-17.

Baran, M. (2008). Assessing the effects of a middle school looping program. *The International Journal of Learning, 15*(7), 185-192.

Barge, J, (2013). Effectiveness system: Implementation handbook. Retrieved from

www.doe.k12.ga.us

Barksdale, M. L., & Davenport, P. (2003). *8 steps to student success: An educator's guide to implementing continuous improvement.* Austin, TX: Equity In Education.

Barksdale, M. L., & Davenport, P. (2007). *8-step instructional process primer - A continuous improvement model.* Austin, TX: Equity In Education.

Bernhardt, V. L. (2004). *Using data to improve student learning in middle schools.* New York, NY: Routledge.

Bernhardt, V. L. (2013). *Data analysis for continuous school improvement.* New York, NY: Routledge.

Bernhardt, V. L., & Herbert, C. L. (2011). *Response to intervention (RTI) and continuous school improvement (CSI):Using data, vision, and leadership to design, implement, and evaluate a schoolwide prevention system.* Larchont, NY: Eye on Education.

Biddix, J. P. (n.d.). Research rundowns: Uncomplicated reviews of educational research methods. Retrieved from https://researchrundowns.wordpress.com/quantitative-methods/effect-size/

Blosveren, K., & Achieve, Inc. (2012). *Understanding the skills in the common core state standards.* Retrieved from www.achieve.org/files/Understanding-Skills-CCSS.pdf

Bradshaw, C. P., Mitchell, M. M., & Leaf, P. J. (2010). Examining the effects of

schoolwide positive behavioral interventions and supports on student outcomes. *Journal of Positive Behavior Interventions, 12, 133-148.*

Brewer, E., & Kubn, J. (2010). Causal-Comparative design. In Neil J. Salkind (Ed.), *Encyclopedia of research design* (pp. 125-132). Thousand Oaks, CA: SAGE Publications, Inc.

Bursuck, W. D., & Damer, M. (2007). *Reading instruction for students who are at risk or have disabilities.* Boston, MA: Pearson/Allyn and Bacon.

Cainwright Communications. (2011). White paper basics: The dos, don'ts, whys, whats, and hows of white papers. Retrieved from www.cainwrightcommunications.com.

Choi, D. (2011). Accountability and alignment under No Child Left Behind: Multilevel perspectives for educational leaders. International Journal of Educational Leadership Preparation, 6(1), 1-9.

Click, J. (2011). How to write a white paper document. Retrieved from http://joannavaiou.com/how-to-write-a-white-paper/

Cohen, J. (1988). *Statistical power analysis for the behavioral sciences* (2nd ed.). Hillsdale, NJ: Lawrence Erlbaum Associates.

Committee on the Prevention of Reading Difficulties in Young Children, the Commission on Behavioral and Social Sciences and Education, and the National Research Council. (1998). *Preventing reading difficulties in young children*. Washington, DC: National Academy Press.

Creswell, J. (2009). *Research design: Qualitative, quantitative, and mixed methods approaches* (3rd ed.). Thousand Oaks, CA: Sage Publications.

Creswell, J. (2014). *Research design: Qualitative, quantitative, and mixed methods approaches* (4th ed.). Thousand Oaks, CA: Sage Publications.

Curwin, R. L. (2010). Motivating urban youth. *Reclaiming Children and Youth*, *19*(1), 35-39.

Davenport, P., & Hinckley, P. (2011). The 8-step process: A system-wide approach for school improvement. Retrieved from http://www.peggyhinckley.com/8_step_process

Dee, T. S., & Jacob, B. (2011). The impact of No Child Left Behind on student achievement. *Journal of Policy Analysis and Management*, *30*(3), 418-446.

Deming, W.E. (1982). *Quality productivity and competitive position.* Cambridge, MA: MIT Press.

Deming, W.E. (1991). *Out of the crisis.* Cambridge, MA: MIT Press

Deming, W.E. (2015). The PDSA cycle. Retrieved from https://www.deming. org/theman/theories/pdsacycle

Dinneen L. C., & Blakesley B. C. (1973) Algorithm AS 62: A generator for the sampling distribution of the Mann– Whitney U statistic. Applied Statistics, 22(2), 269–273

Eaker, R., & Keating, J. (2011). *Every school, every team, every classroom: District leadership for growing professional learning communities at work.* Bloomington, IN: Solution Tree Press

Evaluation Toolbox. (2010). Evaluation toolbox. Retrieved from http://evaluationtoolbox.net.au/index.php?option=com_content&view=article&id=11&Itemid=17

Fairchild, S., Farrell, T., Gunton, B., Mackinnon, A., McNamara, C., & Trachtman, R. (2014). *Design and data in balance: Using design-driven decision making to enable student success*. New York, NY: New Visions for Public Schools.

Ferguon, C. (2014). The uses and misuses of bivariate correlations: The case of video game violence research. In SAGE Research: Methods Cases. doi: 10.4135 /9781446273050 135 08522

Fiester, L. (2010). Early warning! Why reading by the end of third grade matters. A Kids countI special report. Baltimore: The Annie E. Casey Foundation, pp. 9–11.

Flumerfelt, S., & Green, G. (2013). Using Lean in the flipped classroom for at risk students. *Educational Technology & Society, 16*(1), 356–366. Retrieved from http://www.ifets. info/journals/16_1/31.pdf

Franz, D. P., Thompson, N. L., Fuller, B., Hare, R. D., Miller, N. C., & Walker, J. (2010). Evaluating mathematics achievement of middle school students in a looping environment. *School Science And Mathematics*, *110*(6), 298-308.

Frechtling J. 2010. The 2010 user-friendly handbook of project evaluation. Revision to

NSF 02-057. Arlington, VA: National Science Foundation, Directorate for Education and Human Resources, Division of Research and Learning in Formal and Informal Settings.

Fritz, A., & Morgan, G. (2010). Sampling. In Neil J. Salkind (Ed.), *Encyclopedia of research design* (pp. 1303-1307). Thousand Oaks, CA: SAGE Publications, Inc.

Gelman, B. (2001, January). Looping student communities. *School Renewal.* Retrieved September 2, 2005 from http://www.schoolrenewal.org/strategies/i-looping-bg.html

George, P., & Lounsbury, J. (2000). *Making big schools feel small: Multiage grouping, looping, and schools-within-a-school*. Westerville, OH: National Middle School Association.

Gilliam, L. E. (2005). Good teachers don't let go: A case study of middle school looping teachers. (Doctoral dissertation). Retrieved from ProQuest Dissertations and Theses.http://search.proquest.com/docview/305351673?accountid=14872

Goldman, S. R. (2012). Adolescent literacy: Learning and understanding content. *Future Of Children, 22*(2), 89-116.

Gottfried, A. W., Gottfried, A. E., Cook, C. R., & Morris, P. E. (2005). Educational characteristics of adolescents with gifted academic intrinsic motivation: A longitudinal investigation from school entry through early adulthood. *Gifted Child Quarterly,49*(2), 172–185.

Gorenflo, G., & Moran, J. W. (2010). The ABCs of PDCA. Washington, DC: Public Health Foundation. Retrieved from http://www.phf.org/nphpsp/ViewResource Link.aspx? source= http%3a% 2f%2fwww.phf.org%2fresourcestools%2fPages%2f The_ABCs_of_ PDCA.aspx&title=The+ABCs+of+PDCA

Graham, G. (2013a). How to write a white paper, by the numbers. Retrieved from http:www. whitepaperssource.com/writing/how-to-write-a-white-paper-by-thenumbers

Graham, G. (2013b). White paper for dummies. Retrieved from [Kindle DX version]. Retrieved from Amazon.com

Grant, J., Richardson, I., & Johnson, B. (1996). *The looping handbook: Teachers and student progressing together*. Peterborough, NH: Crystal Springs Books.

Gray, C., & MacBlain, S. (2012). *Learning theories in childhood*. SAGE Publications Inc. Thousand Oaks, CA.

Grumdahl, C. R. (2010). *How schools can effectively plan to meet the goal of improving student learning* (Doctoral Dissertation). Retrieved from http://search.proquest.com/docview /305208031? accountid=14872

Harris, A., & Jones, M. (2010). Professional learning communities and system improvement. *Improving Schools, 13(2), 172–181.*

Hassel, B. & Steiner, L. (2012). Guide to working with external providers. American Institutes for Research. Retrieved from http://www.air.com

Hegde, A. V., & Cassidy, D. J. (2004). Teacher and parent perspectives on looping. *Early Childhood Education Journal, 32*(2), 133–138.

Heppen, J., Faria, A., Thomsen, K., Sawyer, K., Townsend, & M., Kutner, M. (2010). Using Data to Improve Instruction in the Great City Schools: Key Dimensions of Practice. Urban Data Study. *Council of The Great City Schools*,

Hidden Curriculum (2014). In S. Abbott (Ed.), *The glossary of education reform.* Retrieved from http://edglossary.org/hidden-curriculum.

Hinton, P. (2010). Mann–Whitney U test. In Neil J. Salkind (Ed.), *Encyclopedia of Research* Design. (pp. 748-751). doi:http://dx.doi.org.ezp.waldenulibrary.org /10.4135/9781412961288.n228

Hitz, M., Jenlink, C., & Somers, M. (2007). The looping classroom: Benefits for children, families, and teachers. *Young Children, 62*(2), 80-84.

Hoffman, M. (2013a). How to write a white paper: A closer look at white paper definition. Hoffman Marketing Communication. Retrieved from http://hoffmanmarcom.com/how-to-write-a-white-paper.php

Hoffman, M. (2013b). How to write a white paper: The five laws. Hoffman Marketing Communication. Retrieved from http://.hoffmanmarcom.com/how-to-write-awhite-paper.php

Hoffman, M. (2013c). Top nine ways to write effective white paper on information security. Hoffman Marketing Communications. Retrieved from http://www.hoffmanmarcom.com/how-to-write-a-white-paper.php

Hood, L. (2010). "Platooning" instruction: Districts weigh pros and cons of departmentalizing elementary schools. *Education Digest: Essential Readings Condensed For Quick Review*, *75*(7), 13-17.

House, J. (2013). NCLB waivers: Good news and bad news. *T.H.E. Journal*, *40*(2), 8-10.

Jackson, S. S. (2013). A Continuous Improvement framework: Data-driven decision-making in mathematics education. Retrieved from dreambox.com

Kenney, J. M. (2007). Mathematics as language. In J. M. Kenney (Ed.), *Literacy strategies for improving mathematics instruction.* Alexandria, VA: Hawker Brownlow Education.

Kosobud, K. & Peters, S. (2009). An exploratory study of reading in urban and suburban middle schools: implications for at-risk and special education learners. *Education and Urban Society 42*(1), 42-71.

Kravtsova, E. E. (2009). The cultural-historical foundations of the zone proximal development. *Journal of Russian & East European Psychology, 47*(6), 9-24.

Krieg, J. M., & Urban, I. (2009). Which students are left behind? The racial impacts of the no child left behind act. Working Paper. *Urban Institute,*

Kulikowich, J., & Edwards, M. (2007). Inferential statistics. In Neil J. Salkind, & K. Rasmussen (Eds.), *Encyclopedia of Measurement and Statistics*. (pp. 458-461).Thousand Oaks, CA: Sage Publications, Inc.

Laba, K. (2011). Coaching for school improvement: A guide for coaches and their supervisors. Center for Innovation & Improvement. Retrieved from http://www.centerii.org

Laerd, A. (2015). Mann whitney u test in SPSS. Retrieved from https://statistics. laerd.com/premium/mwut/mann-whitney-test-in-spss.php

Laughlin, K., Nelson, P., & Donaldson, S. (2011). Successfully applying team teaching with adult learners. *Journal Of Adult Education, 40*(1), 11-18.

Learning Forward (2011). Evidence of effectiveness. Retrieved from www.learningforward.com

Learning Forward (2015). Standards for professional learning: Data. Retrieved from http://learningforward.org/standards/data#.VdpFoSxViko

Lodico, M. G., Spaulding, D. T.. & Voegtle, K.H. (2010). *Methods in educational research: From theory to practice*. San Francisco, CA: Jossey-Bass.

Lobmeier, J. (2010). Nonexperimental Designs. In Neil J. Salkind (Ed), *Encyclopedia of Research Design, (pp. 911-915).* Thousand Oaks, CA: SAGE Publications, Inc.

Maleyko, G., & Gawlik, M. A. (2011). No child left behind: What we know and what we need to know. *Education, 131*(3), 600.

Mandinach, E. B., Parton, B. M., Gummer, E. S., & Anderson, R. (2015). Ethical and appropriate data use requires data literacy. *Phi Delta Kappan, 96*(5), 25-28.

Mariage, T., Burgener, J., Wolbers, K., Shankland, R., Wasburn-Moses, L., Dimling,

L.,…Lazaro, L. (2011). The race to educational reform in the USA: The race to the top. *Language and Education*, *25*(6), 479-490. Retrieved from http://www.taylorandfrancisgroup. com/

Mathis W. J. (2011). Race to the top: An example of belief-dependent reality. A response to "race to the top leaves children and future citizens behind". *Democracy & Education, 19*(2), 1-7. Retrieved from http://graduate.lclark.edu/

Mays, R., & Nordwall, S. (2006). Waldorf answers on the philosophy and practice of Waldorf education. Retrieved from http://www.waldorfanswers.org/index.htm.

McClure, L., Yonezawa, S., & Jones, M. (2010). Can school structures improve teacher-student relationships? The relationship between advisory programs, personalization and students' academic achievement. *Education Policy Analysis Archives, 18*(17), 1-17. Retrieved from http://epaa.asu.e

Mislev, J. & Rupp, A. (2010). Predictive Validity, In Neil J. Salkind (Ed.), *Encyclopedia of Research Design,* (pp. 1077-1079). Thousand Oaks, CA: SAGE Publications, Inc. doi:http://dx.doi.org.ezp.waldenulibrary.org/10.4135/ 978141296128 8.n328

Mons, N. (2009). Theoretical and real effects of standardized assessment. *Education, Audiovisual, and Culture Executive Agency,* 1-39. Retrieved from http://www.eurydice.org

Morrell, E. (2010). Critical literacy, educational investment, and the blueprint for reform: An analysis of the reauthorization of the elementary and secondary education act.

Journal of Adolescent & Adult Literacy, *54*(2), 146-149. Retrieved from http://www.reading.org.ezp.waldenulibrary.org/publications/index.html.

Muijs, D. (2011). Designing non-experimental studies. *In Doing quantitative research in education with SPSS.* London: SAGE Publications.

National Assessment Governing Board. (2012). Reading framework for the 2013 national assessment of educational progress. National Assessment Governing Board. Available from ERIC.

National Center for Education Statistics (2011). Mapping state proficiency standards onto the NAEP scales: Variation and change in state standards for reading and mathematics, 2005-2009. NCES 2011-458. *National Center for Education Statistics.*

National Education Association (2000). Report of the NEA task force on reading. Retrieved from http://www.nea.org/home/18301.htm

National Education Association (2014). Reading. Retrieved from www.nea.org/home/19027.htm

National Governors Association for Best Practices and the Council of Chief State School Officers (2014). Common core state standards initiative. Retrieved from http://www.corestandards.org/about-the-standards/development-process/

National Middle School Association (2005). *This we believe: successful schools for young adolescents: a position paper of National Middle School Association.* Westerville: OH: National Middle School Association

National Middle School Association (2010). *This we believe: Successful schools for young adolescents.* Westerville: OH: National Middle School Association.

Nichols, J. D., & Nichols, G. W. (2002). The impact of looping classroom environments on parental attitudes. *Preventing School Failure, 47*(1), 18–25.

No Child Left Behind Act of 2001, P.L. 107-110, 20 U.S.C. § 6319 (2002)

North Central Regional Educational Laboratory (n.d.). Departmentalized schools. Retrieved from http://www.ncrel. org/sdrs/areas/issues/students/atrisk /at6l14.htm.

Oberman, I. (2007). *Learning from Rudolf Steiner: The relevance of Waldorf education For urban public school refor*m. *Online Submission*, Retrieved from ERIC database.

Park, S., Hironaka, S., Carver, P., & Nordstrum, L. (2013). Continuous improvement in education. Carnegie Foundation for the Advancement of Teaching. Retrieved from http://www.carnegiefoundation.org/resources/publications/continuous-improvement-education/

Pearl, A. (1972). *The atrocity of education*. St. Louis, MO: New Critics Press.

Pett, M. (2008). Nonparametric statistics. In S. Boslaugh & L. McNutt (Eds.), *Encyclopedia of Epidemiology. (pp. 738-744).* Thousand Oaks, CA: SAGE Publications, Inc.

Petty, K. (2009). Using guided participation to support young children's social development. *Young Children, 64*(1), 80-85. Retrieved from http://www.naeyc. org

Pratt, M. W. (2009). Looping to meet the needs of gifted children. *Principal, 88*(5), 22–24.

Public Law 107–110. (2002). *No child left behind act of 2001*. Retrieved from: http://www2.ed.gov/policy/elsec/leg/esea02/107-110.pdf

Reardon, S. F., Valentino, R. A., & Shores, K. A. (2012). Patterns of literacy among U.S. students. *Future Of Children*, *22*(2), 17-37.

Roaten, G. K., & Roaten, D. J. (2012). Adolescent brain development: Current research and the impact on secondary school counseling programs. *Journal of School Counseling*, *10*(18), 1-27.

Rockoff, J. E., & Lockwood, B. B. (2010). Stuck in the middle. *Educationnext.*10(4). Retrieved from http://educationnext.org/stuck-in-the-middle/

Rotham, R. (2011). Five myths about the common core state standards. *Harvard Education Press, 27(5).* Retrieved from http://hepg.org/hel/article/513

Sachiko, S., Stolley, K., & Hyde, C. (n.d.). White paper: Purpose and audience. Retrieved from https://owl.english.purdue.edu/owl/owlprint/546

Simel, D. (1998). Education for 'Bildung': Teacher attitudes toward looping. *International Journal of Educational Reform, 7*(4), 330–337.

Sincero, S. M. (2011). Social development theory. Retrieved from http://explorable.com/social-development-theory.

Slaughter, T. (2009). Creating a successful academic climate for urban students

The Free Library, from http://www.thefree library.com/Creating a successful academic.

Steele, C. J. (2013). *The continuous improvement model: A K-12 literacy focus* (Doctoral Dissertation). Available from ProQuest Dissertations & Theses Global.

Steinberg, L. (2011). Demystifying the adolescent brain. *Educational Leadership, 68*(7), 42-46.

Sullivan, G. M., & Feinn, R. (2012). Using effect size - or why the P value is not enough. *J Grad Med Educ,* 4(3) 279-82.

Tan, X., & Michel, R. (2011). Why do standardized testing programs report scaled scores? Retrieved from http://www.ets.org/Media/ Research/pdf/RD_ Connections16.pdf

Taylor, J., Stecher, B., O'Day, J., Naftel, S., & Le Floch, K. (2010). State and local implementation of the "no child left behind act". Volume IX--Accountability under "NCLB": Final Report. *US Department of Education*.

Tennessee State Board of Education. (2005). Tennessee Comprehensive Assessment Program (TCAP): Tennessee Student Test Results, 2004-2005. *Tennessee State Board Of Education*. Available at ERIC.

Tennessee Department of Education (2010). Guide to test report interpretation. Retrieved from http://www.state.tn.us/education/assessment/doc/ACHEdu_ Guide_test_interp.pdf

Tennessee Department of Education (2014a). Data, testing, and report card. Retrieved from http://www.state.tn.us/education/

Tennessee Department of Education (2014b). Test administration manual – 2014. Retrieved from http://www.state.tn.us/education/assessment/doc/ACH_TAM_2014_spring.pdf.

Tennessee Department of Education. (2014c). TCAP achievement technical report – appendix j. Retrieved from https://www.tn.gov/education/section/assessment

Tennessee Department of Education. (2014d). TCAP achievement technical report – appendix k. Retrieved from https://www.tn.gov/education/section/assessment

Tennessee Department of Education. (2014e). State standards. Retrieved from http://www.tn.gov/education/standards/index.shtml

Tennessee Education Association (n.d.). Testing 1-2-3: Your questions answered. Retrieved from http://teateachers.org/

Thompson, N. L., Franz, D. P., & Miller, N. (2009). Research summary: Looping. Retrieved 1 December 21, 2014, from http://www.amle.org/TabId/198/ArtMID/696/ArticleID /311/Research-Summary-Looping.aspx

Tienken, C. H. (2012). NCLB waivers: Instructions for Secretary Arne Duncan and state education bureaucrats. *Kappa Delta Pi Record*, *48*(2), 59-61. doi:10.1080/00228958.2012.680362

Tucker, C., Dixon, A. & Griddine, K. (2010). Academically successful African American male urban high school students' experiences of mattering to others at school. *Professional School Counseling, 14(2),* 135-145. Retrieved from EBSCOhost84 database. httpsy/schoo[counselor, inetapress.com/content/k215671 rjO 18 gl 34/resourcesecured/?target= till ltext.pd 1~

U.S. Department of Education. (2010). Laws & guidance/elementary and secondary education. Retrieved from http://www2.ed.gov/policy/elsec/leg/esea02/index.html.

U.S. Department of Education. (2011a). The new consensus on middle grades reform. Retrieved from http://www.ed.gov/news/speeches/new-consensus-middle-grades-reform

U.S. Department of Education. (2011b). Middle grades matter. Retrieved from http://www.ed.gov/blog/2011/11/middle-grades-matter/

Vaiou, J. (2011). How to write a white paper/writing white papers advice. Retrieved from http://joannavaiou.com/how-to-write-a-white-paper/

Vygotsky, L., Hanfmann, E. (Ed), Vakar, G. (Ed) (1962). *Thought and language. Studies in communication*. Cambridge, MA, US: MIT Press.

Vygotsky, L. S. (1978). Mind in society: The development of higher mental processes. Cambridge, MA: Harvard University Press.

Westerfield, T. (2009). The effect of looping and teaming on rural black middle school

students' sense of belonging. (Doctoral Dissertation). Proquest Dissertations & Theses: Full Text.

Wiener, R. (2013). Teaching to the core: Integrating implementation of Common Core and teacher effectiveness policies. The Aspen Institute. Retrieved from http://www.ccsso.org/documents/2013/teachingtothecore.pdf

Wixon, K. K., & Lipson, M. Y. (2012). Relations between the CCSS and RTI in literacy and language. *Reading Teacher, 65(6),* 387-391.

Wynn, J. L. (2010). *A study of selected teachers' perceptions of grade retention in a Florida School District*. (Doctoral Dissertation)

Appendix A

Increasing ELA TCAP Proficiency through Continuous School Improvement:

A White Paper

Presented by:

DeAngela A. Graham

Introduction

The local district has experienced an influx of middle schools being placed in focus and priority school status, primarily based on low proficiency scores on ELA TCAP assessments. As a result, school and district level administrators continue to seek solutions to address this problem experienced in approximately 83 middle schools. This project, a white paper presented the findings of a study that compared a looping and traditional classroom setting to determine if a statistically significant difference in scores existed between the groups. Findings of the study did not reveal a statistical difference. As a result, additional research related to improving student learning and proficiency resulted in presenting three school improvement models as possible solutions to address the presented problem.

The white paper begins with an overview of the problem prompting the study. Findings from the study were presented, followed by a thorough discussion of the

continuous school improvement concept. The white paper presents information on three models of continuous school improvement that could potentially lead to increased student learning and proficiency on TCAP assessments. The white paper concluded with recommendations for school and district level administrators to consider when deciding to implement one or more of the continuous school improvement models presented.

The Problem

The Tennessee Department of Education measures the progress of districts and schools based on the percentage of students scoring proficient or advanced (Table 1) on TCAP assessments administered in April of each school year.

Table 1

TCAP Scale and Number Correct Score Ranges

		Scale Score Ranges				***Number Correct Score Ranges***			
Year	Grade	BB	B	P	A	BB	B	P	A
2011	4	600-708	709-759	760-798	799-900	0-25	26-43	44-53	54-60
2012	5	600-705	706-754	755-802	803-900	0-25	26-41	42-54	55-60
2013	6	600-707	708-751	752-802	803-900	0-26	27-41	42-55	56-62
2014	7	600-717	718-759	760-797	798-900	0-27	28-42	43-53	54-62

Schools are expected to exceed the prior year's proficiency level by at least 6% in each subject area (Tennessee Department of Education, 2014a). The Tennessee Department of Education sets cut scores in terms of number correct answers, and scale scores that determine student proficiency levels. Adequate yearly progress is determined

by the percentage of students that perform in the proficient or advanced ranges (Tennessee Department of Education, 2014a).

Focus schools comprise the 10% of schools with the largest achievement gaps among groups of students by ethnicity and socioeconomic status. Priority Schools consist of the lowest performing 5% of schools in the state (Tennessee Department of Education, 2014a). Within the state of Tennessee 83 schools have been identified as priority, and 167 schools have been identified as focus schools. These classifications have a detrimental impact on the local district. The local district currently has the largest percentage of schools in these categories (Tennessee Department of Education, 2014a). As a result, within the last two years several schools from the local district have been placed under the management of the Achievement School District (ASD) or Innovation Zones (I Zone) district for improvement (Tennessee Department of Education, 2014a).

Additionally, in an effort to increase student achievement the local district has implemented the state mandated Teacher Evaluation Model (TEM). Within the TEM model the Tennessee Value-Added Assessment System (TVAAS) system, derived from TCAP assessment scores, accounts for 35% of teachers' overall evaluation score (Shelby County School District, 2014; Tennessee Department of Education, 2014a). Therefore, basic and below basic proficiency levels have a negative impact on TVAAS scores, and result in lower TEM evaluation scores.

Findings of the Study

A quantitative ex post facto study was conducted in an effort to find an effective strategy to address the problem of low ELA TCAP proficiency in middle schools located within the local district. The study compared achievement on the 2014 ELA TCAP assessment of 7th grade students in two classroom settings to determine if a statistically significant difference in scores existed between students that looped for two years, compared to their peers in traditional classroom settings for two years. Results of Mann Whitney *U* tests conducted on 2014 7th grade ELA TCAP assessment scores found no statistically significant difference in median scores. Additionally, Mann Whitney *U* tests conducted on ELA TCAP assessment scores from 2011-2013 indicated median Scale and Number Correct Score ranges were at basic levels for both groups during all years tested. (Table 2)

Table 2

2011-2014 Scale and Number Correct Score

		Scale Scores	**Number Correct Scores**
2011	Looping	729	38
	Traditional	719	34
2012	Looping	735	38
	Traditional	732	37
2013	Looping	726	40
	Traditional	718	39
2014	Looping	733	34
	Traditional	725	31

As findings of the study revealed, looping did not have a statistically significant impact on student achievement on the 2014 ELA TCAP assessment. As a result of the findings, additional research was conducted to find a solution to the problem of low ELA proficiency in the local middle schools. Through Boolean searches related to: improving student performance, school improvement models, increasing student proficiency, data analysis, data models, assessments, and teacher collaboration, the concept of continuous school improvement surfaced as a possible solution. Additional research (Barnhardt, 2013, Barksdale, 2003) led to the recommendation for school and district level administrators to consider implementing a continuous school improvement model as a possible solution.

Concept of Continuous School Improvement

Continuous school improvement can refer to a school, district, or other organization's ongoing commitment to quality improvement efforts that are evidence-based, integrated into the daily work of individuals, contextualized within a system, and iterative (Park et al., 2013). At the classroom level, continuous school improvement may refer to using timely, accurate data to regularly inform and improve teacher practice. At a school or district level, continuous school improvement may refer to ongoing efforts to improve operational practices and processes related to efficiency, effectiveness, and student outcomes (Best & Dunlap, 2014). A continuous school improvement approach involves addressing fewer problems more effectively by systematically testing potential solutions against specific, measurable goals (Bernhardt & Herbert, 2011). The continuous

school improvement concept also encompasses the general belief that improvement is not something that starts and stops, but is something that requires an organizational or professional commitment to an ongoing process of learning, self-reflection, adaptation, and growth (Hidden Curriculum, 2014).

Continuous school improvement involves a cyclical approach to problem solving:

- it allows relevant actors to reflect on their work,
- identify problem areas,
- pilot potential solutions to those problems,
- observe and evaluate interventions, and
- adapt interventions based on data collected (Flumerfelt & Green, 2013).

The Deming wheel or Deming cycle has been used to improve student learning in several schools and districts (Hinckley, 2012). The Deming cycle is more commonly referred to as plan-do-check-act (PDCA). The PDCA cycle is a systematic series of steps for gaining valuable learning and knowledge for the continual improvement of a product or process (Bernhardt, 2013; Deming, 1982; Deming, 1991; & Deming, 2015).

The PDCA cycle includes four stages:

- Plan: A continuous improvement team studies a problem that needs to be solved, collects baseline data on that problem, elaborates potential solutions to that problem, and develops an action plan.
- Do: The team implements its action plan, collects data on its intervention, and records developments.

- Check: The team gauges the success of the intervention by comparing baseline and new data, analyzes results, and documents lessons learned.
- Act: The team determines what to do with its results. Depending on the success of its intervention, the team may choose to adopt, adapt, or abandon its tested solution (Gorenflo & Moran, 2010; Bernhardt, 2013).

Educational organizations that have implemented continuous school improvement plans have achieved a range of performance goals, including decreased failure rates, increased homework completion rates, increased Advanced Placement exam participation, increased kindergarten readiness, increased college enrollments, and more efficient use of funds (Flumerfelt & Green, 2013; Park et al., 2013).

Continuous School Improvement

Continuous school improvement requires a comprehensive look at all the school's data to ensure learning growth for every student. Schools need to rethink current structures as opposed to adding to existing strategies and interventions (Bernhardt, 2013). Continuous school improvement requires the implementation of structures for gathering, analyzing, and reporting multiple measures of data (Bernhardt, 2013). To ensure that effective teaching spreads, districts and schools must create professional learning systems in which teams of teachers, principals, and other professional staff members meet several times a week to engage in a continuous cycle of improvement (Learning Forward, 2011). Continuous school improvement is based on a comprehensive assessment of student, teacher, and school learning needs. Teams use data to better understand student learning

needs and examine research evidence to identify effective classroom practices, such as lesson studies, examining student work, performing action research, and developing formative assessments (Learning Forward, 2011).

Multiple measures of data. The use of multiple sources of data offers a balanced and more comprehensive analysis of student, educator, and system performance than any single type or source of data can (Learning Forward, 2011). Multiple measures of data fall into four categories: demographic, perceptions, student learning, and school processes (Bernhardt, 2013)**.** Demographical data such as student enrollment, age, gender, ethnicity, and special needs populations can be used to observe trends and glean information for purposes of prediction and planning (Bernhardt, 2013).

School climate is defined as the shared beliefs, values, and attitudes that shape interactions between the students, teachers, and administrators (Bradshaw, Michell & Leaf, 2010). School climate should be a target of school improvement initiatives, due to the association between school climate and positive student outcomes (Bradshaw, Michell & Leaf, 2010). Perception data is important to continuous school improvement because perceptions set the tone of the school climate (Bernhardt, 2013)**.** Student perceptions should be critical information for teacher improvement as they contain information that may not be accurately obtained in classroom observations, and students have the ability to provide perspectives that the principal or evaluator may not be able to offer (Barge, 2013). Interviews, focus groups, questionnaires, and self-assessments are data sources that school can use as approaches to understanding perceptions. Teachers

should use individual student perception data as a tool to help teachers continuously improve and set independent learning goals for themselves and their instructional practice (Barge, 2013).

Student learning. Student learning data is probably the most commonly used data source used in schools (Bernhardt, 2013). Student learning data describes the results of an educational system in terms of standardized tests results, grade point averages, standards assessments, and authentic assessments (Bernhardt, 2013). Continuous school improvement requires a synthesis of student learning data such as assessments, activities, and grades in all subject areas, disaggregated by student demographic groups, by teachers, by grade levels, and by following the same groups of students (cohorts) over time (Bernhardt, 2013). Student learning data identifies which students are not proficient, and by how much each student must improve to be proficient. Additionally, analyzing student learning data across grade levels shows if a school has instructional coherence, as well as an alignment of curriculum, instruction, and assessment within and across grade levels (Bernhardt, 2013).

Assessments are the most commonly used forms of student learning data (Ainsworth & Viegut, 2015; Bernhardt, 2013). Assessments are used as measurements "of" and "for" learning (Ainsworth & Viegut, 2015). Summative assessments, such as the TCAP assessment administered in the state of Tennessee are used as assessments "of" learning after instruction has occurred, and support letter grades, and/or levels of proficiency (Ainsworth & Viegut, 2015).

On the other hand, formative assessments are intended as a form of assessment "for" learning. This type of assessment is an ongoing process in which classroom teachers assess students' knowledge and understanding with activity-embedded, brief, small-scale tasks that are linked directly to the current curriculum topic (Ainsworth & Viegut, 2015; Heppen et al., 2010). Assessments "for" learning help teachers gain insight into what students understand in order to plan and guide instruction, and provide helpful feedback to students (Bernhardt, 2013). Formative assessments are used as a tool to inform and adjust instruction. Formative assessment results are intended to: accurately interpret student learning needs, set individual classroom goals as well as grade- and course-level team goals for student improvement, identify and share effective teaching strategies to accomplish goals, plan ways to differentiate instruction and correct student perceptions, and inform students about their current progress so they can adjust their learning methods and strategies (Ainsworth & Viegut, 2015).

Data Driven Decision Making and school processes. The conception of Data Driven Decision Making (DDDM) recognizes that decisions may be informed by multiple types of data, including: input data, such as school expenditures or the demographics of the student population; process data, such as data on financial operations or the quality of instruction; outcome data, such as dropout rates or student test scores; and satisfaction data, such as opinions from teachers, students, parents, or the community (Mandinach, 2012). DDDM in education refers to teachers, principals, and administrators systematically collecting and analyzing various types of data, including

input, process, outcome and satisfaction data, to guide a range of decisions to help improve the success of students and schools. A data-driven approach is retrospective as it starts with empirical evidence of which processes are working, and which are not to draw conclusions based on those diagnostic reviews (Fairchild et al., 2014). Diagnostic reviews are a critical component of DDDM in continuous school improvement. Diagnostic reviews allow schools and school systems to look beyond performance data and analyze a myriad of school processes that may be contributing to the state of the school's performance data (AdvancED, 2011).

School processes include methods and intervention actions administrators take regarding the curriculum, instruction, and assessment strategies used to teach the content that students are expected to learn (Bernhardt, 2013). Understanding the schools' processes is the first step in clarifying how a school is achieving its goals and getting its results. School processes are important to continuous school improvement because they are what produce school and classroom results. School process data tell about the way the school works, indicates how results are being obtained, and indicates what is working and what is not working in the school (Bernhardt, 2013). School processes are the only measures over which a school has almost complete control in an education setting. To get different results, schools need to change the processes to create better results. To change the processes, school staff must agree on the impact of the processes being implemented to determine which processes should be modified or removed to achieve desired outcomes (Bernhardt, 2013).

Shared Visions

Continuous school improvement requires schools to focus on a shift from compliance to commitment by implementing a shared vision in a manner that will lead to improved teaching and ultimately increased learning for all students (Bernhardt, 2013). The school's vision, goals, and student expectations must reflect the core values and beliefs of the staff, merged from personal values and beliefs. After analyzing multiple measures of data and determining what is and is not working and why, school staff membrs need to study and discuss the implications of teaching current and future student populations. Additionally, staff members need to identify changes needed in the school's curriculum, instruction, assessment, and environmental approaches to implement best practices, and then create a vision for where they want to go (Bernhardt, 2013).

8-step continuous improvement process

The 8-step continuous improvement process was created to provide educators with a significant tool in providing the structure and accountability needed for schools and school districts to close achievement gaps as measured by standardized test scores (Barskdale, 2003, 2007; Hinckely, 2012). Barksdale embedded the 8-step continuous improvement process (Table 11) into the four parts of the PDCA instructional cycle (Barksdale, 2002, 2007).

Table 3

PDCA and 8-Step Continuous Improvement Process

Plan	Do	Check	Act
		8-step continuous improvement process	
1. Data Disaggregation	3. Instructional Focus	4. Assessment	7. Tutorials
		5. Maintenance	8. Enrichment
2. Instructional Calendar		6. Monitoring	

Step 1: Data disaggregration. Using data in the classroom is essential, but equally important is allotting time for teachers to learn from each other. Collaboration is a vital component in the implementation of data-driven practices, such as discussing pressing problems around student learning, or working together to find possible instructional strategies to remediate student-learning concerns (Jackson, 2013).

Principals and teachers learn to analyze test results to determine state standards, objectives, and/or skills have been mastered or non mastered by all students. At the beginning of each school year, the prior year's summative assessment data are disaggregated by school, class, teacher, student, socioeconomic status, and test content. This step is to determine which student needs are being met, and which are not. An analysis to identify which teachers are successful with which standards as well as other factors that could potentially influence test results such as attendance, grade distribution, dropout rates, and behavior issues are explored (Barksdale & Davenport, 2003).

Data disaggregation in the 8-step process requires quality team planning

(Barksdale & Davenport, 2003). Grade-level/subject area teachers meet on a weekly basis to discuss data, collaboratively plan, and share best practices for teaching standards, objectives, and/or skills. During this time teachers identify mastered and non-mastered content area objectives by analyzing individual test items that require improvement, and identify how many students passed/failed specific objectives. Teachers also place skills and objectives in which students scored the lowest as high priority (Barksdale & Davenport, 2003).

Data walls are used throughout the school year to provide visual displays of student progress on various assessments. Data walls include a color-coding system used by each teacher to indicate the level of performance for every student. Students who are performing well above expected levels are coded with blue; green indicates students who are on-track; yellow is used for those who are just below standard and need assistance; and red reflects students who have not mastered standards and need intensive support. Data walls are updated after each summative and formative assessment to assist teachers in identifying students in need of intervention (Barksdale & Davenport, 2003).

Step 2: Instructional calendars. Step 2 of the 8-step process involves the creation of an instructional calendar, which is reviewed and modified annually based on data analyses of assessment results from the previous year. The instructional calendars divide each grading period into blocks, and indicate when formative and summative assessments will be administered, and which skills will be covered. As part of the 8-step process, instructional calendars are made available by visible display to teachers,

students, parents or community members who may be in the school building (Barksdale & Davenport, 2003).

Step 3: Instructional focus. The instructional focus within the 8-step continuous improvement process is guided by the instructional calendar. Research-based best practices are reliant on instruction to individuals, small groups or the whole class driven by the intersection of the instructional calendar and data results. Teacher mentoring and support is provided to support the instructional focus, continuous professional development opportunities, collaborative planning, and sharing of best practices. Additionally, classroom walkthroughs are routinely conducted to ensure that teachers are addressing objectives prioritized by the instructional calendar, employing effective strategies, and addressing needs identified through the analysis of formative assessment results (Barksdale & Davenport 2003).

Step 4: Assessment. Accountability reforms for student learning have created an increased emphasis on the belief that assessments can be an important lever for improved teaching and learning (Heppen et al., 2010). Regular use of assessment data provide educators with the ability to:

- Better understand the academic needs of individual students, and respond to these needs by targeting instruction, support, and resources accordingly
- Better understand the instructional strengths and weaknesses of individual teachers, and use this information to focus professional development (PD), peer support, and improvement efforts

- Support and facilitate conversations among teachers and instructional leaders regarding strategies for improving instruction (Heppen et al., 2010).

Within the 8-step continuous improvement process, formative assessments are administered monthly to inform progress throughout the year. These formative assessments are intended to: check for student understanding, tell which students are learning and which need more help, chart student progress, adjust teaching methods to achieve better results, and modify the instructional calendar as needed for re-teaching or acceleration. After each formative assessment, school administrators and teachers engage in half-day "learning log" data meetings, to analyze data results. Teachers complete "learning logs", which detail classroom formative assessment results by skill and objective to examine outcomes, aggregate and disaggregate results, discuss what's working, and to determine where more effort is needed (Barksdale & Davenport, 2003).

Steps 5 and 6: Tutorials and enrichment. "Learning Log" (data) meetings are used to assist teachers in determining next steps of intervention for students who have not mastered standards, as well as determining steps of enrichment for students demonstrating initial mastery. A school-wide 30-minute success period is utilized to provide such intervention or enrichment based on formative assessment results. During the success period, students needing intervention are assigned to content area teachers in small groups, and students receiving enrichment are assigned to non-content area teachers. During the 30-minute success period tutorials are used through games,

manipulatives, graphic organizers, and technology to help students who did not master assessed skills, standards, or objectives. After concepts have been re-taught, students are re-assessed. Those who master skills assessed participate in enrichment activities that provide intellectual challenges (Barksdale & Davenport, 2003).

Step 7: Maintenance. The 8-step process tends that maintenance is a key in any long-range strategy to improve schools, and it is an especially powerful tool for at-risk students. In the 8-step process review and maintenance of what has been learned begins immediately after a new idea has been introduced and continues throughout the school year. Students maintain skills learned through periodic and cyclical review of skills taught during class starters, daily oral/math activities, and learning software. Additionally, formative assessments include skills previously taught and tested to ensure students are maintaining previously taught skills and concepts (Barksdale & Davenport, 2003).

Step 8: Monitoring. Ongoing monitoring of the 8-step continuous improvement process is conducted through process checks. Process checks are conducted to help guide that school/district on its road to continuous improvement. During process checks, issues involved in the process implementation of the 8-step continuous improvement process are discussed, and solutions are generated through the development of an action plan. The principal holds responsibility of monitoring the 8-step process at every step. The 8-step process requires the principal to:

- Conduct classroom walkthroughs on a regular basis

- Hold one-on-one student Test Talks
- Conduct monthly Learning Log meetings with grade-level/content area teachers
- Monitor grade-level/department-level team planning (data) meetings
- Ensure that Data Walls are continuously updated
- Oversee implementation of Success Period
- Celebrate success with teachers, students, and parents (Barksdale, 2003).

The 8-step continuous improvement process has been implemented in several schools and districts resulting in increases in standardized test scores (Anderson, 2001; Brazosport Independent School District, 2015; & Steele, 2013). In 1991-1992, after the realization that students in low-income areas of Brazosport Independent School District (BISD) routinely failed standardized tests in which students in more affluent areas of the district routinely passed, the district began to seek a solution to close the achievement gaps. The district began to analyze data of teachers experiencing the most success with economically disadvantaged students. The results lead to the school-wide, and eventually district-wide implementation of an 8-step continuous improvement process created by third grade teacher Mary Barksdale. By 1998–1999, BISD had received national accolades from public and private organizations for showing monumental gains resulting 91% of students in all demographic groups achieving passing scores in reading, math, and writing (Anderson, 2001).

In 2002, the Metropolitan School District of Warren Township located in Indiana,

a K-12 urban district began to pilot the 8-step process in its lowest performing schools. From 2002-2009, all schools in which the 8-step process cycle had been implemented experienced significant gains in ELA and math ranging from 9.6% to 35.3%, exceeding Indiana's growth rate each year. As a result of the significant gains experienced in pilot schools between 2002-2009, the Indiana Department of Education implemented the 8-step process into 26 other low-performing elementary and middle schools (Davenport & Hinckley, 2012). Within one year of implementation 17 of 26 schools increased ELA and math proficiency on standardized ELA and Math assessments. In BISD, all middle schools have sustained ELA proficiency for the last five-years (2009-2014) ranging from 84%-95%. Additionally, 2014 state report cards indicate BISD in Texas, and Metropolitan School District (MSD) in Indiana have sustained acceptable proficiency and growth in schools that have implemented and continue to use the 8-step continuous improvement (TEA, 2015 & IED, 2015).

Steele (2013) analyzed literacy/reading TCAP scores to determine if the 8-step continous improvement process provided a framework to raise literacy/reading achievement and focus educators in identifying high yield strategies. Quantitative data were collected from student results on the ELA TCAP assessments for school years 2010-2011 and 2011-2012. The results showed practical and significant differences in student growth as expressed by TVAAS scores. Furthermore, effect sizes were above minimum recommended values for schools that partially and fully implemented the 8-step continuous improvement process versus schools that did not implement the process.

Implementation of the 8-step process as a commitment to increase student achievement is viewed nationally as a significant tool in providing the structure and accountability required of schools and districts (Davenport & Hinckley, 2012). As schools and/or districts embark on implementing the 8-step continuous improvement process, organizations must commit to providing the time, culture, and resources for every child to be successful (Anderson, 2001). The 8-step continuous improvement process is intended to be a process of education reform, with the belief that all children can learn, given the proper time and resources (Anderson, 2001).

A common phenomenon in implementing the 8-step continuous improvement process has been for districts and/or schools to contract external consultant companies or individuals to lead and monitor the process (Park et al., 2013). A school improvement consultant, external to the day-to-day responsibilities expected of school leaders and teachers, provides objective and expert guidance to carry out the process of school reform (Laba, 2011). The process of identifying and selecting an external contractor, and then managing the relationship to ensure success deserves careful thought and planning (Hassel & Steiner, 2012).

Another approach to implementing continuous school improvement is through professional learning communities (PLCs). PLCs can best be described as a collaborative culture; a culture in which collaborative teams work to ensure all their students learn (Eaker & Keating, 2011). PLCs are intended to increase educator effectiveness and results for all students occurs within learning communities committed to continuous

improvement, collective responsibility, and goal alignment (Learning Forward, 2015).

A professional learning community is a group of connected and engaged professionals who are responsible for driving change and improvement within, between and across schools that will directly benefit learners. PLCs that occur within learning communities provide an ongoing system of support for continuous improvement and implementation of school and system wide initiatives (Learning Forward, 2015).

Improvement through professional learning communities is only possible if educators collaborate and focus on the work of improving learning and teaching (Harris & Jones, 2010). Improvement through professional learning communities means focusing on improving learning outcomes or better learning. It means addressing the hard questions about classroom practice and actively seeking to change teachers' practice. PLCs apply a cycle of continuous improvement to engage in inquiry, action research, data analysis, planning, implementation, reflection, and evaluation (Harris & Jones, 2010). Principals of professional learning communities are expected to make a seismic shift from being instructional leaders to becoming learning leaders. This role is fulfilled, primarily, by asking the right questions, spending time on the things that will have the greatest impact on student learning and enhancing the effectiveness of collaborative teams. If the leadership capacity of district leaders and principals is, a critical correlate of effective schools (Eaker & Keating, 2015).

Recommendations

It is recommended that district and school level administrators consider the

following action plan:

- District level administrators approve the white paper for distribution to all school and district level administrators.
- School and district level administrators participate in professional development on Plan-Do-Check-Act, Multiple Measures of Data, and 8-Step Continuous Improvement.
- School and district level administrators allocate funds to hire external consultants to lead focus and priority middle schools in implementing one or more of the continuous school improvement models based on the needs of the school.
- District level administrators provide professional learning to expand the use of continuous school improvement models in schools at every level.

Continuous School Improvement Process Implementation Timeline

Middle school principals in high priority and focus schools will be invited to participate in a district-wide PLC in which all participating schools will engage in the process of implementing a continuous improvement process utilizing multiple measures of data and the 8-Step Continuous Improvement Process. Participating principals will organize PLC leadership teams within their respective building. The PLC leadership teams will attend monthly district-wide PLC meetings to increase each team's capacity for implementing the models effectively using the following timeline:

January 2016: Meet with principal of the study site and Superintendent of Academics for review and approval of white paper.

February 2016: Collaborate with the Superintendent of Academics to schedule a date to present white paper to middle school principals of high priority and middle schools in the local district. Prepare and organize all necessary materials, supplies, and technology resources needed for presentation.

March 2016: Present white paper to middle school principals in high priority and focus middle schools. At the end of the presentation, participants will complete a survey to provide an evaluation of the white paper.

April 2016-June 2016: PLC Leadership teams will convene monthly district-wide PLC meetings to plan and organize the implementation of continuous school improvement PLCs and increase knowledge of the 8-Step Continuous Improvement Process in their schools.

July 2016-August 2016: PLC Leadership teams will begin to meet with faculty and staff members to begin the implementation of continuous improvement PLCs and conduct an analysis of multiple measures of data.

August 2016-May 2017: PLC Leadership teams will continue to meet monthly to plan and organize school level continuous improvement PLCs using the 8-Step Continuous Improvement.

Conclusion

The white paper presented resulted from a study to determine if looping could potentially be suggested as a possible solution to address the low ELA TCAP proficiency experienced in many middle schools in the local district. As the data from the study prompting the white paper indicated, median ELA TCAP proficiency levels for students included in the study were at basic levels for four consecutive years. As accountability for students to perform at proficient levels increase, it is paramount that schools find an effective solution for improving state mandated assessment results. Based on the concept of continuous school improvement, schools could improve instructional practices leading to increased student learning and proficiency on TCAP assessments by implementing frameworks for analyzing multiple measures of data on a yearly basis. Additionally, using the PDCA and/or the 8-Step Continuous Improvement Process could potentially serve as an ongoing framework to guide instructional practices throughout the school year to ensure higher levels of learning for every student. The Tennessee Department of Education continues to utilize TVAAS scores derived from student TCAP scores to account for 35% of teacher TEM levels. The use of continuous school improvement models could aide in increasing teacher TEM levels, and result in higher compensation for teachers and administrators.

References

AdvancedED. (2011). Enhancing continuous improvement and improving student achievement: An overview for state and federal policymakers. Retrieved from www.advanc-ed.org.

Ainsworth, L. & Viegut, D. (2015). *Common formative assessments 2.0.* Thousand Oaks, CA: Corwin Press.

Anderson, G.E. (2001). *Education reform success stories*. Amherst, MA: National Evaluation Systems.

Barksdale, M. L., & Davenport, P. (2003). *8 steps to student success: An educator's guide to implementing continuous improvement.* Austin, TX: Equity In Education.

Barksdale, M. L., & Davenport, P. (2007). *8-step instructional process primer - A continuous improvement model.* Austin, TX: Equity In Education.

Bernhardt, V. L. (2004). *Using data to improve student learning in middle schools.* New York, NY: Routledge.

Bernhardt, V. L. (2013). *Data analysis for continuous school improvement.* New York, NY: Routledge.

Bernhardt, V. L., & Herbert, C. L. (2011). *Response to intervention (RTI) and continuous school improvement (CSI):Using data, vision, and leadership to design, implement, and evaluate a school wide prevention system.* Larchont, NY: Eye on Education.

Bradshaw, C. P., Mitchell, M. M., & Leaf, P. J. (2010). Examining the effects of

schoolwide positive behavioral interventions and supports on student outcomes. *Journal of Positive Behavior Interventions, 12, 133-148.*

Cainwright Communications. (2011). White paper basics: The dos, don'ts, whys, whats, and hows of white papers. Retrieved from www.cainwrightcommunications.com.

Davenport, P., & Hinckley, P. (2011). The 8-step process: A system-wide approach for school improvement. Retrieved from http://www.peggyhinckley.com/8_step_ process

Dee, T. S., & Jacob, B. (2011). The impact of No Child Left Behind on student achievement. *Journal of Policy Analysis and Management*, *30*(3), 418-446.

Deming, W.E. (1982). *Quality productivity and competitive position.* Cambridge, MA: MIT Press.

Deming, W.E. (1991). *Out of the crisis.* Cambridge, MA: MIT Press

Deming, W.E. (2015). The PDSA cycle. Retrieved from https://www.deming. org/theman/theories/pdsacycle

Dinneen L. C., & Blakesley B. C. (1973) Algorithm AS 62: A generator for the sampling distribution of the Mann– Whitney U statistic. Applied Statistics, 22(2), 269–273

Eaker, R., & Keating, J. (2011). *Every school, every team, every classroom: District leadership for growing professional learning communities at work.* Bloomington, IN: Solution Tree Press

Fairchild, S., Farrell, T., Gunton, B., Mackinnon, A., McNamara, C., & Trachtman, R. (2014). *Design and data in balance: Using design-driven decision making to enable student success*. New York, NY: New Visions for Public Schools.

Gorenflo, G., & Moran, J. W. (2010). The ABCs of PDCA. Washington, DC: Public Health Foundation. Retrieved from http://www.phf.org/nphpsp/ViewResource Link.aspx? source= http%3a% 2f%2fwww.phf.org%2fresourcestools%2fPages%2f The_ABCs_of_ PDCA.aspx&title=The+ABCs+of+PDCA

Grumdahl, C. R. (2010). *How schools can effectively plan to meet the goal of improving student learning* (Doctoral Dissertation). Retrieved from http://search.proquest.com/docview /305208031? accountid=14872

Harris, A., & Jones, M. (2010). Professional learning communities and system improvement. *Improving Schools, 13(2), 172–181*.

Hassel, B. & Steiner, L. (2012). Guide to working with external providers. American Institutes for Research. Retrieved from http://www.air.com

Heppen, J., Faria, A., Thomsen, K., Sawyer, K., Townsend, & M., Kutner, M. (2010). Using Data to Improve Instruction in the Great City Schools: Key Dimensions of Practice. Urban Data Study. *Council of The Great City Schools*,

Hidden Curriculum (2014). In S. Abbott (Ed.), *The glossary of education reform.* Retrieved from http://edglossary.org/hidden-curriculum.

Jackson, S. S. (2013). A Continuous Improvement framework: Data-driven decision-making in mathematics education. Retrieved from dreambox.com

Laba, K. (2011). Coaching for school improvement: A guide for coaches and their supervisors. Center for Innovation & Improvement. Retrieved from http://www.centerii.org

Learning Forward (2015). Standards for professional learning: Data. Retrieved from http://learningforward.org/standards/data#.VdpFoSxViko

Mandinach, E. B., Parton, B. M., Gummer, E. S., & Anderson, R. (2015). Ethical and appropriate data use requires data literacy. *Phi Delta Kappan, 96*(5), 25-28.

Sachiko, S., Stolley, K., & Hyde, C. (n.d.). White paper: Purpose and audience. Retrieved from https://owl.english.purdue.edu/owl/owlprint/546

Steele, C. J. (2013). *The continuous improvement model: A K-12 literacy focus* (Doctoral Dissertation). Available from ProQuest Dissertations & Theses Global.

Tennessee Department of Education (2014a). Data, testing, and report card. Retrieved from http://www.state.tn.us/education/

Vaiou, J. (2011). How to write a white paper/writing white papers advice. Retrieved from http://joannavaiou.com/how-to-write-a-white-paper/