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The Effect of Allocated Assessment Time and Allocated Instructional Time on Student Achievement in Small, Medium, and Large School Districts in Florida

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THE EFFECT OF ALLOCATED ASSESSMENT TIME AND ALLOCATED INSTRUCTIONAL TIME ON STUDENT ACHIEVEMENT IN SMALL, MEDIUM, AND LARGE SCHOOL DISTRICTS IN FLORIDA

by

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ABSTRACT

To date, there is little current research which explores the effect of allocated assessment time and allocated instructional time as related to student achievement (Spanjers, Burns, & Wagner, 2008). Current educational reform has placed accountability and assessment at the forefront of public education (Hirsh, 2007; Jennings, 2012; Kallemeyn, 2009; NCLB, 2001; Supovitz, 2009). Research of time on task has demonstrated that there may be a positive correlation between the amount of time on task in learning activities and student achievement (Fredricks, McColskey, Meli, Mordica, Montrosse, & Mooney, (2011). There is current legislation to increase the time demands of assessment and the resulting decrease of allocated instructional time may result in lower levels of student achievement (Butler, 1926; 1936; Brophy, Rohrkemper, Rashid, & Goldwater, 1982; Carroll, 1963; Doppelt, Mehalik, Schunn, Silk, & Krysinski, 2008; Spanjers, Burns, & Wagner, 2008; Wyss, Dolenc, Kong, & Tai, 2013). The purpose of this study was to compare allocated assessment time to allocated instructional time in small, medium, and large school districts in Florida. A sample of 12 school districts was selected representing small, medium, and large school districts based on student enrollment from Florida Education Finance Plan (FEFP) data. Data related to State and school district mandated assessments were collected for each school district using school district testing calendars and State assessment calendars. These data were examined and the number of minutes spent on each assessment was calculated. The calculation was used to determine the amount of time spent on State and school district mandated assessment. Allocated instructional time was calculated using the difference in allocated

time and allocated assessment time. In addition, data were analyzed to determine what, if any, relationship existed between allocated assessment time and school district size as well as student achievement. Time lost to assessment preparation was also included in the determination of allocated assessment time.

This dissertation is dedicated to my undergrad professors

who said I couldn't do it. "Nanny, nanny, boo, boo"

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CHAPTER 1
INTRODUCTION

Background of Study

The achievement of all public school students is at the core of education in the United States as exemplified by the Florida Department of Education's Strategic Plan Goal Number 1: Highest Student Achievement (Florida Department of Education, 2012). Current educational reforms were developed in order to ensure that every student is able to meet his maximum level of achievement (Elementary and Secondary Education Act [ESEA], 1965; No Child Left Behind [NCLB], 2002, 2003; U. S. Department of Education, 2009). The assessment of achievement is therefore a central component of the reforms (Popham, 2001). Several reforms have required the use of assessments to measure student achievement in mathematics, reading, science and writing (Ravitch, 2010). In the State of Florida, there was a further push for end-of-course examinations specific to each academic course so as to ensure that students meet minimum competency levels in each content area (FDOE, 2013).

As more assessments are added to the current educational landscape, there may be a correlative effect on students' allocated instructional time. Increased levels of allocated instructional time have been demonstrated to relate to increased levels of student achievement (Bell & Davidson, 1976; Butler 1925, 1936). Allocated instructional time may be affected by the introduction of new assessments aligned with current educational reform. As new assessments have been introduced, it has become increasingly important that a thorough understanding of the increased allocated assessment time and the

relationship of students' allocated instructional time and student achievement are established.

Statement of Problem

To date, there was little current research conducted to explore the effect of allocated assessment time and allocated instructional time on student achievement. The introduction of State Board of Education and school district mandated assessment in public schools has been magnified with the increased attention on accountability in education. The mandated assessments were used to determine student achievement, evaluate teachers, and determine the funding provided to schools (NCLB, 2002).

In order to provide time during the school year to deliver the assessments, students' allocated instructional time was reduced in order to accommodate the growing number of mandatory assessments. Research findings related to allocated instructional time demonstrated that there may be a positive correlation between the amount of allocated instructional time and student achievement. The number of assessments has increased over time, and legislation has been enacted that increased the time demand of assessment. The resulting decrease of allocated instructional time may result in lower levels of student achievement (Wyss, Dolene, Kong, & Tai, 2013).

Purpose

The purpose of this study was to compare allocated assessment time to allocated instructional time in randomly selected small, medium, and large school districts in Florida. Because Florida was preparing to implement end-of-course examinations for

each course delivered in public schools, understanding the amount of allocated assessment time will allow for a strategic plan for end-of-course examination implementation, thereby reducing the amount of allocated instructional time lost to assessment.

Significance of Study

To date, there has been little research conducted to explore the effect of allocated assessment time and allocated instructional time as they relate to student achievement. This study was significant because it provided an examination of time spent on assessment and the associated decrease in allocated instructional time. This study also provided school districts with information about assessment preparation time that may decrease allocated instructional time. Data were used to determine an operationally efficient amount of allocated instructional time as measured by student achievement outcomes. As school districts transition to the use of EOC examinations provided by Section 1003.428, *Florida Statutes*, allocated instructional time and efficiency data were important to determine cost effective practices that maintain or increase allocated instructional time.

Definition of Terms

Allocated assessment time--The amount of time spent on administration of school district and state mandated assessments. Testing time on task is equal to the difference between instructional time on task and time on task.

Allocated instructional time--Allocated instructional time is equal to the difference between time on task and testing time on task. Instructional time on task includes any period included in time on task that is not used for testing.

Allocated time--Allocated time is the overall amount of time a student has in order to interact with the learning environment. It is the total amount of time that school is tasked with the provision of learning. It does not include lunch, passing time, or extracurricular activities. Time on task does include time allotted in each period of every day. Time on task is equal to testing time on task combined with instructional time on task.

FCAT 2.0--Florida's statewide assessment used to measure student achievement of the Next Generation Sunshine State Standards in order to determine a student's academic growth over time (Florida Department of Education [FDOE], 2013).

FCAT 2.0 Developmental Scale Score--A type of scale score used in 2011 to determine a student's annual progress from grade to grade. The DSS scale for FCAT 2.0 reading ranged from 140-302 across Grades 3-10, and the DSS scale for FCAT 2.0 mathematics ranged from 140-298 across Grades 3-8 (FDOE, 2013).

FCAT 2.0 Scale Score--A type of scale score used to measure FCAT 2.0 science achievement. The scale score for FCAT 2.0 science ranges from 140-260 in both grades 5 and 8 (FDOE, 2013).

Conceptual Framework

Allocated time acted as the underlying conceptual framework for this study. Allocated instructional time was found to be positively correlated with student achievement. Beginning in the 1920s, allocated instructional time was measured and related to student achievement. In 1925, Butler conducted a study to examine the relationship between time on task as measured by school attendance and its relationship to student achievement. Butler found that increased school attendance was positively correlated with student success as measured by graduation rates. Butler followed up his 1925 study with an examination of specific school data related to time on task and student achievement in 1936. He examined attendance rates at the high school level and found support for his initial results. The connection between time on task and student achievement may be extended to allocated learning time. The more time allocated for learning, the greater the possibility for time on task.

Butler's findings related to time on task were supported more recently in a series of studies conducted to investigate student achievement among juvenile delinquents. Among those defined as juvenile delinquents, those who missed the fewest days of school were also those with the highest levels of achievement in the study sample (Finn, 1989, 1993, 1997).

Instructional quality was included in the historic understanding of time on task. Instructional quality was demonstrated by achievement with the assumption that allocated instructional time was predictably related to the quality of instruction (Doppelt, Mehalik, Schunn, Silk, & Krysinski, 2008). The conceptual framework for the present study did

not make this assumption. Rather, it was focused on allocated instructional time alone as a factor in rates of student achievement, thereby removing instructional quality as a measurement factor.

In 1979, Gary, Indiana instituted minimum competency testing in public high schools. The primary benefit found was the development of specific learning objectives. The effect on student achievement at all levels was found to be inconclusive (Frahm & Covington, 1979).

The impact of allocated learning time, instructional quality and the relationship to student achievement was studied in 2013. Wyss et al. (2013) found that if high school biology students were provided with more classroom time to interact with content, levels of achievement increased, regardless of instructional quality. An increase in allocated assessment time was met with a reciprocal decrease in allocated instructional time.

Research Questions and Hypotheses

The following five questions and related hypotheses were used to guide this research study:

1. What mandated assessments are administered in Florida's school districts?
2. How many minutes are used in preparation for mandated assessments administered in Florida's school districts?
3. How many minutes are used to administer mandated assessments in Florida's school districts?

4. What, if any, relationship exists between school district size and minutes of allocated assessment time in Florida's school districts?

   H_{01}. There is no relationship between school district size and minutes of allocated assessment time in Florida's school districts.

5. What, if any, relationship exists between amount of allocated instructional time and student achievement in Florida's school districts?

   H_{02}. There is no relationship between amount of allocated instructional time and student achievement in Florida's school districts.

Delimitations

This study was delimited by the research questions used to guide data collection and analysis. Data were collected relating to the time used for assessment. The reason for mandated assessment selection and justification for time spent on mandated, standardized assessment were beyond the scope of this study. Teacher-made tests or quizzes were not within the scope of this study.

State and school district assessment calendars were used to determine mandated, standardized assessments. School-level data were not used due to the wide-variety of site-based assessments and lack of reliability in data at this level. The study sample was comprised of 12 Florida school districts selected by school district size based on FEFP student enrollment data. School district size was stratified in groups of 10, representing the large, medium, and small school districts to increase the chance that variance would

be observed between school district size and allocated assessment time. Four school districts were selected randomly from each of the strata.

Only one student characteristic was used in the examination of student achievement. Student achievement was only measured using data on student achievement that could be readily accessed. Any assessment outside of these parameters was not included in the study.

Only school districts in the State of Florida were examined. The determination of this population was based on the consistency of legislative assessment requirements and the availability of similar assessments across the school districts. In order to determine the assessments used in each school district, only state and district-mandated assessments were utilized. The use of school-level data were excluded because it may have resulted in the accumulation of a vast array of assessments lacking the background information necessary for allocated time calculations used in this study.

Student achievement was measured using data available from the Florida Department of Education, the Florida Comprehensive Assessment Test (FCAT), and state-developed end-of-course examinations (EOC). These sources of data were chosen because of the reliability associated with reporting provided by FDOE oversight and the public availability of the results.

Limitations

Barriers to generalizability of this study's findings were identified based on the use of data of only one state. In addition, further limitations were found in the willingness of school districts to be forthcoming with assessment calendar information.

Overview of Methodology

Research Design

The study design was an exploratory, mixed-method research design. Qualitative data were utilized to determine mandatory assessments used in Florida's school districts. Quantitative data were used in order to determine the effect of school district size, allocated assessment time, and allocated instructional time on student achievement.

Participants

The population from which the sample for this study was drawn was comprised of the 67 county school districts in the State of Florida as provided by section 1001.30, Florida Statutes.

Variables

In order to respond to Research Question 4, school district size based on student enrollment using the most recent Florida Education Finance Plan (FEFP) data were identified as the independent variable. The amount of allocated assessment time from test publishers and school district documentation were identified as the dependent

variable. In order to respond to Research Question 5, the independent variable was identified as the amount of allocated instructional time measured using assessment information and district testing calendars. The dependent variable was identified as student achievement measured using FCAT 2.0 DSS for mathematics and reading and FCAT scale score for science.

Data Collection

Upon the successful defense of the research proposal and approval by faculty of the Educational Leadership program, it was submitted to and approved by the University of Central Florida Instructional Review Board (Appendix A).

Student enrollment data were collected from the most recent Florida Educational Finance Plan (FEFP) reports available from the Office of the State of Florida Auditor General and the FDOE website (FDOE, 2014). Student achievement data were collected from the Florida Department of Education FCAT 2.0 interactive website. Appendix B contains a list of Assessments and descriptions used in the sample school districts.

Data Analysis

Descriptive statistics and the display of tabular data were used to respond to the first three research questions. The following data analyses were conducted for evaluation of Research Questions 4 and 5. Data analysis for Research Question 4 was a one-way analysis of variance (ANOVA). An ANOVA was used in order to determine if a significant difference existed between school district sizes in relation to allocated assessment time. A Pearson r was used to determine the strength of the relationship

between allocated instructional time and school district size. Linear regression was used in order to determine the predictability between the two variables in Research Question 4. For Research Question 5, the predictor variable was allocated instructional time and the criterion variable was student FCAT 2.0 mathematics and reading DSS score.

Summary and Organization of the Study

This chapter contains the background information needed for this study. In addition, the researcher has provided the following clarifying content related to implementation of the study: the problem, the purpose, and the significance of this study. Operational definitions were provided to allow for understanding of specific vocabulary used in this study. The conceptual framework was introduced, and research questions were stated along with delimitations and limitations of the study. A brief synopsis of the methodology, including research design, participants, data collection, variables, and proposed analysis were included. Chapter 2 contains a review of literature, and Chapter 3 provides a detailed explanation of the research methodology. In Chapter 4, results of data analyses are discussed, and the research questions are answered. Chapter 5 is devoted to a summary of the study and an exploration of the connection between research questions. In addition, the results are discussed in relation to earlier research findings, and recommendations for the future study of allocated time are proposed.

CHAPTER 2
REVIEW OF LITERATURE

Introduction

The purpose of this study was to compare allocated assessment time to allocated instructional time in randomly selected small, medium, and large school districts in Florida. This chapter contains a review of the literature related to the critical elements of the study: accountability, educational assessment, allocated learning time, allocated instructional time and student achievement.

The History of Accountability

According to Berryhill, Linney, and Fromewick (2009), teacher accountability has been designed to hold teachers responsible for student achievement on rigorous standards as measured using standardized assessments, and the question of the impact of accountability on student achievement has also been studied. One of the more interesting areas of study related to student achievement has been the distribution of student achievement based on expectations to meet proficiency. Reback (2008) studied the distribution on the impact of accountability from NCLB in 2006. Reback found that increases in student achievement were concentrated among students at the margins. Students who were on the verge of meeting or losing proficiency were the students who experienced increased resources and, in turn, increased achievement (Reback, 2008). Reback's 2008 findings were supported by Krieg in his 2011 research.

The Washington Educational Research Association designated Krieg as the author of its report on the impact of No Child Left Behind (NCLB) across adequate yearly

progress (AYP) sub-groups in the state (Krieg, 20119). Two years of student achievement prior to implementation of NCLB using historical data from the Washington Assessment of Student Learning (WASL) and the Iowa Tests of Basic Skills (ITSB) were used to create two cohorts for study. The cohorts were created using the historical data to categorize schools as going to make future AYP or not going to make AYP in the future. The first cohort consisted of those students at schools that met AYP goals. The second cohort contained students at schools that did not meet AYP requirements.

Krieg (2011) found that students in schools that were not expected to make AYP showed statistically significant growth in achievement based on WASL and ITBS data. It was also found that achievement in schools that were expected to meet AYP had stagnant ITBS scores and declining WASL scores. Krieg concluded that this discrepancy may be a result of his parallel findings that strategic instruction programs were embedded in schools not expected to meet AYP. The greater the likelihood of a school meeting AYP, the lower the likelihood that there was a plan for strategic instruction at the school. According to Krieg, in response to these findings, the savvy school leader must ensure that programs of strategic instruction are embedded in the school culture in order to prevent the slippage of student achievement.

Chiang (2009) examined the effect of increased accountability on failing elementary schools in Florida. He focused on the impact of threats of sanctions on positive, persistent student achievement and changes in the quantity and use of educational inputs. Chiang found that threatened sanctions result in significant changes in amount and use of educational inputs. In addition, student achievement growth was

persistent in the short to medium run, 1-2 years after leaving elementary school (Chiang, 2009).

Accountability and Instructional Practice

Teacher accountability is based on the bureaucratic-rational choice model. The central tenet is that motivation through rewards and sanctions embedded in accountability policies will have a strong impact on instruction (Diamond, 2012). The goal of teacher accountability is to more closely match educational policy and instructional practice (Diamond, 2012). Devine, Fahie, and McGillicudy (2013) surveyed primary and secondary teachers in Ireland and proposed a definition of "good teacher." Good teachers possess five or six primary characteristics as identified by other teachers. Good teachers demonstrate passion, love for children, reflection, planning, and a focus on the social and moral. These characteristics persist over time due in part to teacher resilience. Many teachers face similar policy constraints and expectations (Devine et al., 2013). The method by which the teacher copes with the stress of accountability may influence the relationship between teacher accountability and positive instructional process.

Diamond (2012) studied 15 K-8 schools in Chicago through interviews, survey, and observation to examine the interaction between accountability policies and instructional practice. It was demonstrated that accountability practices have a higher impact on lesson content than instructional practice. The political environment, though sensed at the classroom level, has not yet dominated the environment (Diamond, 2012).

The relatively small effect of teacher accountability on instructional practice was also examined by Smith who conducted a study of California public schools in 2008 and found that nearly all schools in all geographic and economic areas were taught by highly qualified teachers as defined by NCLB. Regardless of AYP status, schools had the same percentage of highly qualified teachers; thus, based on NCLB's definition of teacher accountability, all things should be equal. What Smith found was a disparate proportion of low-socioeconomic status and minority populations at schools failing to meet AYP. In her study, accountability did not have an impact on instructional practice.

Accountability and Funding

The finance of educational organizations has been related to teacher accountability because of national initiatives tied to federal funding. The national initiatives have teacher accountability components that must be met by state legislation in order for the state to be considered for specific federal funding. A Texas study proposed that annual accountability ratings were an over-investment (Craig, Imberman, & Perdue, 2013). Sanford and Hunter (2011) examined the relationship between funding in higher education and teacher accountability as measured by student performance in Tennessee. In Tennessee's higher education organizations, increased funding was not associated with higher levels of academic outcomes for students. The authors projected that even with double the funding, the desired impact would not be met. The results of the examination of student outcomes in higher education related to funding were relatively inelastic. Regardless of the level of funding, student outcomes tended to stay the same.

Florida has used the Florida Education Funding Plan (FEFP) in order to determine how schools are funded within the state. The FEFP was adopted in 1973 and has been recognized as one of the most comprehensive and effective funding formulas in the U. S. (Escue, 2012). In Escue's study, the use of high-stakes, standardized testing as a measure of accountability was associated with an increase in the effect on a student's socioeconomic status. Specifically, financial sanctions in place to correct low-performing schools have been exacerbated by the use of FCAT scores as a measure of accountability. The use of sanctions widens the achievement gap by magnifying the effect of low socioeconomic status when combined with the notion that low-socioeconomic status students tend to be concentrated in low-performing schools.

The political nature of public school funding was also examined by Wong (2008). Wong's conclusions speak directly to the question at the core of this literature review. Wong determined that there has been a shift over the past 40 years that has increased the level of politics in the funding of education. The first shift was the introduction of the federal government's role in ensuring equitable access to education through Title I funding. The political motivation was to ensure the value that all individuals deserve equitable access to education regardless of their background or socioeconomic status. As a result of the funding to support the values of the majority, accountability based on outcomes has become a widely used tool for the measurement of equity. Accountability shifted from a focus on educational inputs to one of educational outputs. The final proposition of Wong was that political battles within the states have increased. As the

focus on outputs increased, a vacuum was created and various interest groups filled the void.

Political motivation is the support of a policy that serves the interest of specific groups or individuals. It aligns action with reaffirmation or development of the beliefs and values of individuals or groups. There is a lack of transparency about the political motivation of teacher accountability. Accountability has been, at least in part, driven by economic forces (Beyer, 2002). The mention of economics bring teacher accountability into the realm of politics.

Examination of the history of public education in the United States revealed strong influence of personal beliefs on the structure of educational organizations. The evolution of educational organizations has provided evidence for the political motivation driving teacher accountability. Teacher accountability is the outcome a 400-year transference in educational control from the immediate community to society as a whole embodied by a representative government.

The pilgrims landed in the United States in the year 1620. That same year, local power of school creation was granted by leaders of the new colony. Fifteen years later the original leaders feared that their religious and cultural beliefs would not be transmitted to future generations; and in response, the Latin Grammar School opened in Boston in 1635. The purpose of the Latin Grammar School was to ensure a well-educated ministry, capable of passing on the values and beliefs of the colonists. The politics of education had already begun to sprout in the young Americas.

In 1642, the first recognized curriculum was established when the Massachusetts Bay Law was passed. It provided parents with an outline of the religious beliefs and capital laws of the commonwealth that were to be taught to their children. The Massachusetts Bay Law introduced one of the first standardized curricula in the New England Colonies. The standard curriculum was targeted at parents but in 1647 the Old Deluder Satan Act was passed in Massachusetts. The law was a state statute that required local governments to provide K-5 education in towns of 50 families and K-12 education in towns with 100 or more families. The higher grades were solely for the higher social classes and prepared boys for entrance into Harvard University.

By 1690 the political landscape was strikingly similar to the current situation. Directed curricula were in place. Local governments were imbued with the responsibility to educate the young of the town (at least the males). In order to meet the needs of the curriculum, the first "textbook for the masses" (p. xx) was released. The *New England Primer* became the most commonly used textbook in the colonies.

At this point in the evolution of teacher accountability, a primitive form of the current public education system was established. Hallmarks of politics are already being revealed. Curriculum is being set. Public provision of education becomes more firmly established. Text books are being developed to teach the curriculum across several schoolhouses. Although no teacher accountability requirements were in place in the U. S. at this early time, Britain had adopted a pay for performance model based on student outcomes (Frymier, 1998). By 1998, Britain's pay for performance program had received mixed reviews, but no clear cut examination of its effectiveness was provided

due to anomalies in the number of teachers who participated in the program (Mendro, 1998).

Development in education continued through the early half of the 20th century. Developments in theories of learning and child psychology paved the way for experimental classrooms. Special needs children were provided with educational opportunities in special schools. The most striking contrast to the present state of education was the segregation of the races in the public school system. The politics of segregation are deep and wide and have acted as a driving force in the development of trends in teacher accountability as the achievement gap is revealed and teachers are held accountable for closing that gap.

Sputnik caused the U. S. to focus on preparing students to be college-ready. The goal was to ensure a capable level of intellect among government engineers in order to compete with Russia in space exploration (Johanningmeier, 2010). In 1965, the Elementary and Secondary School Act (ESEA) was passed, and with it came the first emphasis on accountability. *A Nation at Risk* was released in 1983, sending a message of crisis in public education (National Commission, 1983). Reform in education became a political platform. *A Nation at Risk* was a political tool to foster higher levels of teacher accountability and to demonstrate that the government was doing "something" in response to poor levels of achievement of U.S. students in comparison to their global counterparts (National Commission, 1983). It sparked a perceived crisis in U. S. education and led to a series of educational reforms. Reforms related to *A Nation at Risk* began in the early 1980s and have continued into the present time. *A Nation at Risk* was

the starting point for national discussion of teacher accountability based on student achievement. *A Nation at Risk* also aided in the development of a fully competency-based curriculum in education.

The relationship between teachers' accountability and the politics, governance, and finance of educational organizations is an area of policy worthy of further examination. The politics of education are linked to teacher accountability. "What should the teacher be accountable for?" and, "Who should the teacher be accountable to?" are questions asked and answered in the political arena. Specific beliefs and values have been imbued in accountability policies and have influenced accountability legislation (Beyer, 2002).

The governance of educational organizations and teacher accountability have been related because of the multiple levels of government involved and their influence on the content of teacher accountability. Teacher accountability policies and implementation have been spread through all levels of the U. S. government. Federal policies such as Elementary and Secondary Education Act of 1965 (ESEA) and its reauthorization as No Child Left Behind (NCLB, 2003) were enacted at the federal level, and state policies have been developed to meet the requirements of the federal policies. Local school districts have been responsible for determining policies related to specific use of accountability data.

Federal control of education is unconstitutional under the 10th Amendment of the U. S. Constitution. Although its power is not direct, the federal government has used its indirect power to implement several educational reforms throughout history. Recent

policies related to teacher accountability set forth by the federal government have been part of reauthorization of the ESEA. No Child Left Behind (NCLB, 2003) was President George W. Bush's contribution to the evolution of ESEA. It set in place federal funding sanctions against schools that failed to meet federal requirements for student growth overall and by sub-group.

Under President Barack Obama the U. S. faced a sharp economic decline. As a component of President Obama's American Recovery and Reinvestment Act the Race to the Top (RTTT) federal grant program was enacted (U.S. Department of Education, 2009). The RTTT program allowed substantial financial reward for states willing to comply with federal requirements. These federal requirements included the alignment of teacher compensation with student achievement through the use of standardized student testing to assign teacher accountability.

According to Conway and Murphy (2013), teacher accountability can be disaggregated into three categories: (a) accountability for compliance; (b) maintaining professional norms; and (c) accountability based on student outcomes. Their examination of education in Ireland revealed a "perfect storm" for accountability policies to shift towards an increased emphasis on teacher compliance and student outcomes. Possible causes of the shift included an economic downturn in Ireland and lower than anticipated results from the 2009 PISA. Increased focus was placed on compliance-based accountability (Conway & Murphy, 2013). The U. S. has experienced a similar shift in social climate with a similar economic downturn and lower than expected results on the 2009 PISA. The shift itself hints at the political motivation of accountability policies.

In response to an ongoing economic down-turn in the U. S., the American Reinvestment and Recovery Act of 2009 was passed. It included the Race to the Top Grants available to states that met certain federal requirements related to student assessment and teacher accountability. The Common Core State Standards (CCSS) initiative was launched very soon after the RTTT program was approved (National Governors Association, 2010). One of the components of the RTTT program was the adoption of rigorous academic standards. The federal government, along with the National Board of Governors, just happened to have rigorous standards ready if states wanted to use them.

In general, as the economy contracts, greater levels of justification are necessary for governmental funding of education. In order to better follow the money, test score data has been a relatively easy method by which to view the impact of funding increases or decreases and provide a means for punitive sanctions to be used for failure to meet set achievement levels.

In Ireland, the need for easy to understand data about teacher compliance led to the wide-spread use of student test scores as a measure along with observed teacher compliance (Conway & Murphy, 2013). The U. S. has adopted RTTT which requires that states utilize student outcome data in the determination of teacher effectiveness. The similarities of the two countries' plans are apparent and aid in the establishment of the theoretical framework underlying the understanding of teacher accountability and connect accountability with political motivation.

The 2015 accountability landscape is full of rules and regulations. These are not necessarily imposed but come attached as parts of voluntary national or state funding programs. The alignment of accountability and the source of funding lead to areas of concern related to conflicts of interest. If funding is based on student outcomes and student outcomes are used to hold teachers accountable, it follows that teacher accountability has an effect on the funding of educational organizations.

States have historically been allowed to monitor the accountability of teachers without federal oversight. There has been a shift towards more federal influence and state policy has reflected the shift towards a more centralized form of teacher accountability. In Florida, teacher accountability is outlined in Section 1012.34, Florida Statutes.

In local school districts, teacher accountability is implemented through district level collective bargaining agreements. The adoption of a teacher pay scale that reflects student performance as a component of salary increases has been implemented across school districts; and often, 50% of a teacher's evaluation must come from student test results. Teacher evaluations are used to determine salary increases based on school district level decisions aligned with state policy. School boards have the power to approve superintendents' recommendations related to personnel. The local powers granted in the educational system make it difficult to compare educational organizations to other types of organizations. The lack of comparable models of organization should lead to the determination that local decision-making power must be kept intact, if not,

enhanced. Without comparable models, circumstances will arise in which individual decision-making will play a significant role in the outcome of an event.

A startling effect of accountability on stress levels was found among teachers in a study by Berryhill et al. (2009). These researchers studied the effect of accountability policies on teachers, specifically, the amount of stress experienced by educators as a result of policy implementation. In their study, Berryhill et al. found that teachers reported higher levels of emotional exhaustion after the implementation of accountability policies.

The stress-effect related to teacher accountability was also seen in administrators. Derrington and Larsen (2012) showed, through case study, that when a principal's role shifts to subservience to the district office, the principal's level of stress increases. The shift away from principal decision-making has been embodied in state evaluation mandates including prescribed teacher accountability measures. The increase in stress level has been associated with degradation of positive health habits, possibly resulting in a negative impact on the principal's physical and mental health (Derrington & Larsen, 2012).

Educational Assessment

In response to the growth of accountability in education, assessments have come to the forefront of reform. It has been posited that assessment is integral to effective instruction because if instruction were enough, student achievement could simply be measured by allocated instructional time. Assessments reduce ambiguity and are

representational rather than literal. Assessments are intended to be representations of future success, and there is little interest in the actual individual results. Assessment validity is determined by how well inferences can be drawn. Assessment has been evaluated on the adequacy of content, but it might be best to evaluate assessments on student interest (Wiliam, 2011).

Accountability has also reduced the variety of research-based practices. Through standardized testing, one model has taken precedence over the other. This has led to a shift toward teaching, as an example, science facts rather than science. The phenomena has also appeared in other instructional areas. As states and school districts adopt a more limited view of learning and achievement, it is important that current educators be utilized in the development of future standards and large scale assessments (Anderson, 2012).

The impact of mandated large scale assessment has been felt by both public and private schools (Kallemeyn, 2009). According to Jennings, the use of mandated assessments does not negatively impact student achievement when assessment need is determined locally and results are used in a constructive manner. Teachers have increased the use of data in order to refine instructional practice. These data were from classroom-based assessment and do not include large-scale, state-mandated assessment (Jennings, 2012).

The history of assessment is varied. Assessment in writing has been examined on several occasions. Measurement theory has had impact on writing assessment, but writing theory has had little impact on writing assessment. The misalignment between

criteria and purpose have been highlighted. Although writing theory drives authentic writing practice, there is not a connection between writing theory and assessment. Assessment of writing is developed using test-score and scaling criteria. Because the criteria used for writing assessment affects writing instruction, writing assessment encourages teaching to the test (Huot, O'Neil, & Moore, 2010).

The core assumption of mandatory, standardized testing is that the standardized test measures student achievement. No Child Left Behind (NCLB) has detracted from student learning by pooling resources from guidance and student support systems (Duffy, Giordano, Farrell, Paneque, & Crump, 2008).

Committee members of an important educational report were interviewed in order to gain perspective of their views at the time of *A Nation at Risk*. Committee members' views were examined, comparing the 21st century educational landscape to their beliefs at the time of *A Nation at Risk's* publication in 1983 (Good, 2010). Committee members entered interviews with an inherent belief that public education was not meeting the needs of students in the U. S. The teacher appointed to the committee, Jay Sommer, had the most positive outlook on education, believing that the failures in public education were overblown and in fact were isolated issues confined to urban settings (Good, 2010).

The No Child Left Behind Act of 2001 began the current incarnation of high-stakes standardized testing in the U. S. NCLB mandated that teachers, schools, and school districts be held accountable for student achievement (NCLB, 2002). This was established through the provision requiring some type of assessment be used in each state to assess student progress. In addition to this assessment, states were also held to

minimum academic gains each year. If these gains were not met, states could face loss of federal funding.

In contrast, the purposes of large-scale assessments in Canada were categorized as gatekeeping, accountability, instructional diagnosis, and monitoring student achievement. The most common purpose was gatekeeping and least common purpose was instructional diagnosis. Though instructional diagnosis could be argued to be the most significant purpose of large scale testing, it has not been so across the Canadian Provinces (Klinger, DeLuca, & Miller, 2008). In the U. S., gaps in NCLB have been revealed most frequently when high-stakes tests have been used in the gatekeeper role. According to Hirsch (2007), no single test score should determine whether a student graduates from high school.

In the late 1970s, Gary, Indiana was faced with declining graduation rates and low levels of student achievement in its public schools. In response, Gary instituted minimum competency testing. Minimum competency testing was used to ensure that those who graduated from public high school had an appropriate level of skills upon entering the work force. Although the assessment did not result in higher levels of student achievement, it did result in more clearly defined educational criteria. The development of the minimum competency tests forced public education to examine its purpose and to clearly define the objective(s) of a public education. The idea of minimum competency testing was forgotten at the time due to its lack of impact on student performance (Frahm, & Covington, 1979).

Allocated Learning Time

Carroll (1963) used the concept of opportunity for learning when evaluating his idea of a model school. He found arbitrary opportunities for learning were counterproductive to the education of the student population. His results were published and provided a foundation on which future evaluations of program effectiveness were developed. Carroll also determined that instructional variables of quality and opportunity were confounded in prior studies of student engagement though student engagement had been shown to be positively correlated with allocated instructional time.

Current understanding of time on task has emerged through the evolution of the construct of student engagement, and the definition of student engagement has changed over time as Chapman (2003) noted in his short timeline in the paper, "Assessing Student Engagement Rates." Historically, student engagement has been defined by time on task. In a 1978 study of the way time was used in the classroom, Berliner developed a construct called allocated learning time (ALT).

ALT was used in Berliner's (1978) study as a measure of time spent in the engagement of tasks or, more simply, time on task. Learning time was measured through direct observation. He discovered that the most potent predictor of student achievement was the amount of time spent engaged in tasks in the classroom. As a result, he equated ALT (allocated learning time) to learning (Berliner, 1978). In another study, Brophy, Rohrkemper, Rashid, & Goldberger (1982) found that teachers who moved directly into a task had students more engaged than teachers who did a presentation before moving on to tasks. Allocated learning time has continued to be recognized as a component of student

engagement into the 21st century. The idea of time on task as a measure for student engagement was studied by Spanjers, Burns, and Wagner (2008) and was found to be a valid component of student engagement.

The significance of time on task as a component of student engagement has also been established through the acknowledgement that more than half of the instruments identified to measure student engagement use time on task as a component of the construct. Several of the instruments used in the measurement of student engagement utilize time on task as a construct (Finlay, 2006; Fredricks et al., 2011).

Allocated Instructional Time and Student Achievement

As more assessments are added to the current educational landscape, there may be a correlative effect on students' allocated instructional time. Increased levels of time on task have been demonstrated to relate to increased levels of student achievement (Bell & Davidson, 1976; Butler, 1925, 1936).

Wyss et al. (2013) provided further support for the positive relationship between allocated instructional time and student achievement. The researchers examined high school biology students and determined that, regardless of the quality of instructional practice, students demonstrated higher levels of achievement when greater levels of instructional time on task were provided (Wyss et al., 2013).

In 1925, Butler conducted a study to examine the relationship between time on task as measured by school attendance and student achievement. Butler found that increased school attendance was positively correlated with student success as measured

by graduation rates. In 1936, Butler followed up on his 1925 study with an examination of specific school data related to time on task and student achievement. He examined attendance rates at the high school level and found support for his initial findings (Butler, 1925, 1936).

According to Doppelt et al. (2008), the more time a student spends on learning, the higher the level of student achievement in science. Instructional quality, Doppelt et al.'s study was demonstrated by achievement gained regardless of allocated instructional time. Because these researchers used school district means to determine student achievement, variances in student engagement were accounted for. The data across a school district were expected to follow a normal distribution (Doppelt et al., 2008).

Juvenile delinquency, as measured by school attendance, was also correlated with student achievement by Finn (1989, 1993, 1997). Finn's series of studies used total time available for instruction as the independent variable. The dependent variable was student achievement. The studies used time on task because it measured and determined results based on the amount of time a student spent in the classroom.

Educational Assessment and Allocated Instructional Time

Standards-Based Assessment (SBA) is a combination of assessment of learning and assessment for learning (Cheng, Andrews, & Yu, 2011). According to these authors, students who are more self-confident tend to take criterion references tests more seriously. This fact is interesting as students with learning difficulties are those who could benefit most from appropriate assessment. Although they have the most to gain,

they take measurement less seriously than those who tend to achieve best and that have higher levels of self-reported academic competence.

A major complaint about assessment is that the use of assessment decreases instructional time. An example of the dilemma of assessment detracting from instructional time is related to inquiry instruction. Inquiry and hands on laboratory experiences in science tend to use more instructional time than text-based lessons. As testing time increases there is a decrease in time available to carry out scientific inquiry in the classroom. Inquiry-based lessons have been shown to result in higher levels of student growth in a subject than text-based learning. Wyss et al. (2013), found that time using text did not increase student achievement in a high school biology course but inquiry-based learning did show a positive effect on student achievement. This has led to the development of strategies for how teachers can provide time for assessment with minimal decrease in instructional time through the integration of assessment and instruction (Waters, 2012).

Student Achievement and Educational Assessment

High-stakes testing is being used as a stand-alone educational reform. As noted by Supovitz (2009), the isolation of assessment reveals the following shortcomings of the practice: (a) high stakes testing tends to measure deficits rather than provide expertise in the development of a plan of action to improve strengths; (b) results of standardized tests are best used in the determination of performance at the school level and higher; and (c) individual teachers gain little from the results of high-stakes assessment (Supovitz, 2009).

Summary

In this chapter, the researcher provided a synthesis of the literature and research related to important key terms of the study: accountability, instructional practice, the relationship of accountability and funding, educational assessment, and allocated learning time. The relationships of allocated learning time with both student achievement and educational assessment were also explored. This discussion provided support and further development of the conceptual framework of the study.

CHAPTER 3
METHODOLOGY

Introduction

This chapter contains a detailed description of the methods and procedures used to conduct the study. The statement of the problem and purpose are restated, and the significance of the study, its design, and the research questions used to guide the study are reviewed.

The methodology used to collect and analyze data necessary for well-developed research question evaluation is explained, and the population is identified and sampling procedures explained. The procedures, including the sources of data, used to collect and analyze data for each of the six research questions is detailed.

Statement of Problem

To date, there has been little current research conducted to explore the effect of allocated assessment time and allocated instructional time on student achievement. The introduction of State Board of Education and school district mandated assessment in public schools has been magnified with the increased attention on accountability in education. Mandated assessments have been used to determine student achievement, evaluate teachers, and determine the funding provided to schools (NCLB, 2002).

In order to provide time during the school year to deliver the assessments, students' allocated instructional time has been reduced in order to accommodate the growing number of mandatory assessments. Prior research of allocated instructional time has demonstrated that there may be a positive correlation between the amount of

allocated instructional time and student achievement (Wyss et al., 2013). The number of assessments has increased over time, and legislation has increased the time schools devote to assessment. The resulting decrease of allocated instructional time may result in lower levels of student achievement (Wyss et al., 2013).

Purpose

The purpose of this study was to compare allocated assessment time to allocated instructional time in randomly selected small, medium, and large school districts in Florida. Because Florida was preparing to implement end-of-course examinations for each course delivered in public schools, understanding the amount of allocated assessment time will allow for a strategic plan for implementation of end-of-course examinations, thereby reducing the amount of allocated instructional time lost to assessment.

Significance of the Study

To date, there has been little current research which explores the effect of allocated assessment time and allocated instructional time related to student achievement. This study was significant because it provided an examination of time spent on assessment and the associated decrease in allocated instructional time. This study also provided school districts with information about assessment preparation time that may also decrease allocated instructional time. Data used in the present study could be used to determine an operationally efficient amount of allocated instructional time as measured by student achievement outcomes. As school districts transition to the use of EOC

examinations provided by Section 1003.428, Florida Statutes, allocated instructional time and efficiency data were important to determine cost effective practices that maintain or increase allocated instructional time.

Research Design

The researcher used an exploratory, mixed-method research design to conduct the study. Qualitative data, in regard to school district composition, were utilized to determine mandated, standardized assessments administered in Florida. Quantitative data were used in order to determine the effect of allocated instructional time on student achievement.

Research Questions and Hypotheses

The following five questions and related hypotheses were used to guide this research study:

1. What mandated assessments are administered in Florida's school districts?
2. How many minutes are used in preparation for mandated assessments administered in Florida's school districts?
3. How many minutes are used to administer mandated assessments in Florida's school districts?
4. What, if any, relationship exists between school district size and minutes of allocated assessment time in Florida's school districts?

   H_{01}. There is no relationship between school district size and minutes of allocated assessment time in Florida's school districts.

5. What, if any, relationship exists between amount of allocated instructional time and student achievement in Florida's school districts?

   H_{02}. There is no relationship between amount of allocated instructional time and student achievement in Florida's school districts.

Population

The population from which the sample for this study was drawn was comprised of the 66 county school districts in the State of Florida as defined by *Florida Statute,* 1001.30. Orange County Public School District (OCPS) was not used in this study due to the researcher's having a potential conflict of interest as an employee of the school district.

Sample

The sampling procedure used in this study was stratified random sampling. The 66 Florida School Districts defined by *Florida Statute* 1001.30 were ranked in order of size based on student enrollment as reflected in the most recent Florida Education Funding Plan (FEFP) documentation retrieved from the Florida Department of Education Online Report Archive. The school districts were ranked in order from smallest to largest according to student enrollment. The smallest ten school districts, based on student enrollment, constituted small school districts. The 10 school districts with the highest student enrollment were considered large school districts. Strata were developed using the smallest 10 and largest 10 school districts in order to provide more distinct size differences for further analysis of data.

In order to determine the sample, student enrollment data were analyzed for central tendency. Student enrollment data was considered to be perhaps too vague for calculation of mode, as student enrollment data were unlikely to provide equal values between school districts. Thus, mean and median were determined using student enrollment data and whether the population could be represented by a normal curve. If the data were found to be normal, the mean would be used. If data were to found to be positively or negatively skewed, the median was used to determine strata for sampling within the population.

Mode did not exist for the studied population. The mean student enrollment in the population was 39,743.5 with a standard deviation of 64,612.4, and the population median was 12,502.5. The data were found to be positively skewed; therefore, the median was used to measure central tendency. The median was calculated and the five school districts above and below the median were considered medium size school districts. These parameters were established in order to provide the greatest degree of variance in school district size to allow for a more distinct set of data for comparison. An ANOVA was used to ensure statistical variance between school district sizes (small, medium, and large).

Once the three strata of 10 school districts were developed, school districts were assigned random numbers using the random number generator available in a widely available statistics software package. A sample of three representative school districts were selected from each of the strata by assignment of random numbers from 1-100, and selection of the three lowest random numbers occurred for each of the low, medium, and

large population sub-divisions. Thus, a total of nine school districts were used in this study and included three small, three medium, and three large school districts.

Procedures

The procedures used in the conduct of this study were developed through the lens of the five research questions. The specific data collection procedures, sources, and analysis used in the study have been organized around each of the five questions that guided the study.

Research Question 1

What mandated assessments are administered in Florida's school districts?

Data Collection

Data collection related to Research Question 1 began with the use of Florida Statutes to determine the state required academic assessments in Florida's public schools. Specific assessments were measured at the school district level using school district assessment calendars in combination with information from the school district assessment coordinator or equivalent. Sources of data related to Research Question 1 were Florida Statutes, school district assessment calendars, and school district assessment coordinators.

Data Analysis

The data collected from Florida Statutes, school district assessment calendars, and school district assessment coordinators were compiled and presented in the form of a data table. The data table disaggregated the assessments by grade level and subject. A data table was constructed for each school district in the study sample displaying the assessments utilized including the disaggregation by grade level and content area.

Research Question 2

How many minutes are used in preparation for mandated assessments administered in Florida's school districts?

Data Collection

Data collection related to Research Question 2 began with the use of Florida Statutes to determine the state required academic assessments in Florida's public schools. Specific assessments were measured at the school district level using school district assessment calendars in combination with information from the school district assessment coordinator or equivalent. Sources of data related to Research Question 2 were Florida Statutes, school district assessment calendars, and school district assessment coordinators.

Data Analysis

Data were disaggregated using a rubric relating time spent in preparation to the relative significance of the test to schools and students. The rubric created for test type

and hours of preparation is shown in Table 1. The rubric was an adaptation of a rubric created by Nelson (2013) in his study of time spent in preparation for assessments. The rubric was supported by an examination of the impact of high-stakes testing by the New York State Education Department (2004). Further support for the allocation of time during the school day was provided in Jacob's (2005) analysis of the impact of high-stakes assessment in Chicago's Public Schools. In order to determine significance of an assessment, the rubric allowed for delineation between high-stakes and low-stakes assessment. High-stakes assessments were those assessments that had an impact on school grade, and low-stakes assessments did not. In addition, the rubric included the student-centered aspect of impact on course grade. The rubric allowed for separation of assessments into low grade and high grade as related to course impact. A high-grade assessment had an impact greater than 15% on a student's course grade or impacted the credits received for the course.

Table 1

Assessment Types by Hours of Preparation per Administration

Assessment Type	Hours of Preparation per Administration
Low stakes/Low grade (one subject)	5
Low stakes/Low grade (multiple subjects)	10
Low stakes/High grade elementary	15
Low stakes/High grade secondary	10
High stakes/High grade elementary	30
High stakes/High grade secondary	20

Note. High stakes tests affect school grade. High grade tests impact course grade or credit earned.

Research Question 3

How many minutes are used to administer mandated assessments in Florida's school districts?

Data Collection

The data table developed in order to respond to Research Question 1 was developed for each school district in the study sample. In order to fully address Research Question 3, a combination of data were collected including the sources used to respond to Research Question 1. These included Florida Statutes, school district assessment calendars, and school district assessment coordinators. In addition, published administration manuals were used and contact was made with assessment publishers in order to determine the time required for proper administration of the assessment. When administration information could not be determined, 45 minutes was used as administration time. The time period of 45 minutes was equal to approximately one class period and was used primarily to respond to Research Question 3 as it related to school district mandated end-of-semester examinations such as mid-term examinations and final examinations.

Data Analysis

Allocated assessment time was calculated using appropriate time required for administration per assessment. Allocated assessment time was calculated for school districts, grade levels, and content areas. Data were reported in minutes and displayed in a table that best represented the data. Allocated time was equal to allocated assessment

time and allocated instructional time. Allocated instructional time was calculated using school districts' academic calendars. Allocated instructional time was reported in minutes and displayed in a table that best represented the data.

Allocated instructional time was calculated through determination of the difference between allocated time and allocated assessment time. Allocated time minus allocated assessment time equaled allocated instructional time. Allocated instructional time was reported in minutes and displayed in a table that best represented the data. The following three equations were used in the calculations:

Allocated Time (AT) = Mandated instructional time as defined by Florida Statute 1001.42. (1)

Allocated Assessment Time (AAT) = Time for assessment preparation using the included rubric + time for assessment administration from published documentation from assessment developers and school district information. (2)

Allocated Instructional Time (AIT) = Allocated Time - Allocated Assessment Time (AIT = AT - AAT). Allocated Time was determined using the 180 day school attendance expectation as provided by Florida Statute 1001.42. (3)

Research Question 4

What, if any, relationship exists between district size and minutes of allocated assessment time in Florida's school districts?

Research Question 4 was associated with H_{01} that there is no relationship between school district size and minutes of allocated assessment time in Florida's school districts.

Data Collection

The independent variable data, school district size, was determined during the sampling phase of the study. The 67 Florida School Districts defined by Florida Statute 1001.30 were ranked in order of size based on student enrollment as reflected in the most recent Florida Education Finance Program (FEFP) documents retrieved from the Florida Department of Education Online Report Archive. The researcher's employer was not included in the selection process, leaving a population of 66 Florida school districts. The school districts were ranked in order from smallest to largest according to student enrollment.

The smallest 10 school districts based on student enrollment constituted small school districts. The 10 school districts with the highest student enrollment counts were considered large school districts. The median of all the school districts were calculated, and the five school districts above and below the median were considered medium size school districts. These parameters were established in order to provide the greatest degree of variance among school district size to allow for a more distinct set of data for comparison.

Once the three strata of 10 school districts were developed, school districts were assigned random numbers using the random number generator available in a widely available statistics software package. A sample of three representative school districts were selected from each of the strata by assignment of random numbers from 1-100 and selection of the three lowest random numbers for each of the low, medium, and large population sub-divisions. A total of nine school districts were used in the study and included three small, three medium, and three large school districts.

The dependent variable, allocated assessment time, was measured using the data collected in order to respond to Research Questions 2 and 3. A combination of data were collected from the sources used to respond to Research Question 1. These included Florida Statutes, school district assessment calendars, and school district assessment coordinators. When available, published administration manuals were used, and contact was made with the assessment publisher in order to determine the time required for proper administration of the assessment.

Data Analysis

The data were analyzed and displayed using two bar graphs and one scatterplot. The first graph, a bar graph, consisted of each of the 12 school districts ranked in ascending order based on student enrollment from the FEFP documents and allocated assessment time. School districts were placed on the horizontal axis and allocated assessment time was placed along the vertical axis. The representation allowed for side by side comparison of school district allocated assessment time and school district size.

The school district size data were categorized into the larger strata of small, medium, and large. These data were displayed in a bar graph with small, medium, and large categories on the horizontal axis and allocated assessment time on the vertical axis. The display allowed for comparison between the independent and dependent variables using categorical data.

Data analysis for Research Question 4 was a one-way analysis of variance (ANOVA). ANOVA was used in order to determine if there was a statistical significance between district size and allocated assessment time. A scatterplot was created relating the number of students enrolled in a school district to allocated assessment time. The scatterplot and regression allowed for calculation of Pearson r to determine what relationship, if any, existed between school district size and allocated assessment time.

Research Question 5

What, if any, relationship exists between amount of allocated instructional time and student achievement in Florida's school districts?

Research Question 5 was associated with H_{02} that there is no relationship between amount of allocated instructional time and student achievement in Florida's school districts.

Data Collection

The independent variable, allocated instructional time, was measured through determination of the difference between allocated time and allocated assessment time. The dependent variable, student achievement, was measured using FCAT 2.0 data. The

data from FCAT 2.0 reading, mathematics, writing, and science assessments were used to measure school district level achievement. The FCAT 2.0 developmental scale scores, scale scores, and achievement levels were used in the analysis of the data.

Student achievement was measured using the Florida Department of Education's Interactive FCAT 2.0 database. School district data related to FCAT Scale Score, Developmental Scale Score, and students meeting grade level requirements were collected for reading, mathematics, science, and writing, as appropriate.

Data Analysis

The data collected were used in the development of two scatterplots used to determine the relationship, if any, that exists between student achievement and allocated instructional time. One scatterplot uses school districts' FCAT 2.0 scores across the vertical axis. The bar graph uses the school district's percentage at each FCAT 2.0 achievement level on the horizontal axis and allocated instructional time, ranked in ascending order, on the vertical axis. The second bar graph contains a listing of school districts in ascending order by allocated instructional time on the horizontal axis. School districts' DSS data were placed on the vertical axis. In addition, linear regression was used to determine the predictability between the two variables, student achievement and allocated instructional time. The predictor variable in this analysis was allocated instructional time and the criterion variable was student FCAT 2.0 mathematics and reading DSS score.

Summary

This chapter provided detailed information regarding the methods and procedures used to conduct the study. Included were a restatement of the problem addressed in the study, the purpose of the study, and the significance of the study. The population was identified, and sampling procedures were explained. The five research questions were stated, and the sources of data along with the data collection and analyses processes used to respond to each question were discussed in detail.

Chapter 4 contains the data analysis organized around each of the research questions. Chapter 5, the concluding chapter of the dissertation, is used to explore the connection between research questions. In addition, results are discussed in relation to earlier research findings and recommendations for the future study of allocated assessment time are proposed.

CHAPTER 4
ANALYSIS OF THE DATA

Introduction

This chapter provides a presentation of the analysis of the data for the study, the purpose of which was to compare allocated assessment time to allocated instructional time in randomly selected small, medium, and large school districts in Florida. The chapter contains a brief description of the population and the sample of the study and a restatement of the five research questions. The data analysis for each of the research questions is presented through tabular displays and accompanying narratives.

Population

The population from which the sample for this study was drawn was comprised of the 66 county school districts in the State of Florida as defined by *Florida Statute,* 1001.30. Orange County Public School District (OCPS) was not used in this study because the researcher was an employee of Orange County Public Schools.

Sample

The sampling procedure used in this study was stratified random sampling. The 66 Florida School Districts defined by *Florida Statute* 1001.30 were ranked in order of size based on student enrollment as reflected in the 2013-2014 Florida Education Funding Plan (FEFP) documentation retrieved from the Florida Department of Education Online Report Archive. The school districts were ranked in order from smallest to largest according to student enrollment. The smallest 10 school districts, based on student

enrollment, constituted small school districts. The 10 school districts with the highest student enrollment were considered large school districts.

In order to determine the sample, student enrollment data were analyzed for central tendency, and mean and median were determined using student enrollment data. Mean and median data were used to determine whether the population could be represented by a normal curve. If the data were found to be normal, the mean was used. If data were to found to be positively or negatively skewed, the median was used to determine strata for sampling within the population.

The mean student enrollment in the population was 39,743.5 with a standard deviation of 64,612.4, and the population median was 12,502.5. The median was used to determine strata because the median was less than the mean for the population. The data were found to be positively skewed. Therefore the median was used to measure central tendency.

The median of all the school districts was calculated, and the five school districts above and below the median were considered medium size school districts. These parameters were established in order to provide the greatest degree of variance among school district size to allow for a more distinct set of data for comparison. An ANOVA was used to ensure statistical variance between school district sizes small, medium, and large.

Once the three strata of 10 school districts were developed, school districts were assigned random numbers using the random number generator available in a widely available statistics software package. A sample of four representative school districts

were selected from each of the strata by assignment of random numbers from 1-100 and selection of the four lowest random numbers for each of the small, medium, and large population sub-divisions. A total of 9 school districts were used in this study and included three small, three medium, and three large school districts. The sample districts and their respective student enrollments are displayed in Table 2

Table 2

Sample School Districts by Student Enrollment

School District	Student Enrollment
Small districts	
Overall mean	1,774
Dixie	2,023
Gulf	1,954
Franklin	1,347
Medium districts	
Overall mean	14,873
Citrus	15,539
Indian River	17,964
Nassau	11,115
Large districts	
Overall Mean	193,649
Broward	258,478
Duval	125,429
Hillsborough	197,041

Research Questions and Hypotheses

The following five questions and related hypotheses were used to guide this research study:

1. What mandated assessments are administered in Florida's school districts?
2. How many minutes are used in preparation for mandated assessments administered in Florida's school districts?
3. How many minutes are used to administer mandated assessments in Florida's school districts?
4. What, if any, relationship exists between school district size and minutes of allocated assessment time in Florida's school districts?

   H_{01}. There is no relationship between school district size and minutes of allocated assessment time in Florida's school districts.
5. What, if any, relationship exists between amount of allocated instructional time and student achievement in Florida's school districts?

   H_{02}. There is no relationship between amount of allocated instructional time and student achievement in Florida's school districts.

Data Analysis for Research Question 1

What mandated assessments are administered in Florida's school districts?

The differences between school districts were examined through the use of school district mandated assessments. Each school district was required, by Florida Statute 1008.22, to adhere to the state mandated assessment schedule. Therefore, differences

among school districts were more readily apparent in the list of school district mandated assessments. The school districts' assessment inventories were collected using publicly available assessment calendars, school improvement plans filed with the FDOE. School districts were reported in groups by school district size (small, medium, and large).

State Mandated Assessments

State mandated assessments used in Florida were determined through an examination of the Florida State Wide Assessment Calendar (FDOE, 2014). Florida Statute 1008.22 required assessments to be given in Grades K-12 during the 2013-2014 school year. The number of assessments and subject areas assessed varied dependent on the grade level. Grades 1 and 2 were required to administer the minimum number of assessments. Grades 1 and 2 were required to assess students one time during the 2013-2014 school year. Grade 11 and 12 students were required to complete a maximum of 10 state mandated assessments during the 2013-2014 school year. Assessments used in the determination of number of administrations were based on assessments administered to the general student body. Specific sub-population assessments were not used in calculations throughout the study. The assessments not included within the scope of the study were the CELLA and Access Point Assessments for students with exceptionalities in order to make the findings more generalizable. Table 3 was developed using the publicly available 2013-2014 State Wide Assessment Calendar and contains the information related to state assessments included on the assessment calendar categorized by grade level.

Table 3

State Mandated Assessments by Grade Level

		Grade Level												
Assessment	Subject	K	1	2	3	4	5	6	7	8	9	10	11	12
FCAT 2.0	Reading				X	X	X	X	X	X	X	X		
	Math				X	X	X	X	X	X	X	X		
	Writing					X				X		X		
	Science						X			X				
FCAT 2.0 Retakes	Reading												X	X
	Math												X	X
EOC	US History												X	X
	Biology 1										X	X	X	X
	Algebra 1										X	X	X	X
	Geometry										X	X	X	X
	Civics								X					
FLKRS	Reading	X												
FAIR	Reading	X	X	X	X									
PERT	Reading												X	X
	Math												X	X
	Writing												X	X
AP											X	X	X	X
Total		2	1	1	3	3	4	2	3	4	6	7	10	10

Dixie County Assessments (Small)

School district mandated assessments used in Dixie County were determined through an examination of publicly available assessment calendars. Dixie County required assessments to be given in Grades K-12 (Dixie District Schools, 2013). Dixie County used Discovery Education Assessments in kindergarten through eighth grade. Discovery Education Assessments were given three times during the 2013-2014 school year. The subject areas assessed varied depending on the grade level.

Reading was assessed using the Discovery Education Assessments three times during the school year in Grades K-8 and 11-12. Mathematics was assessed three times using the Discovery Education Assessments in GradesK-11. Science was assessed three times in Grades 8 and 10, and English Language Arts was assessed three times in Grades 9-11.

In addition to Discovery Education Assessments, the school district mandated the use of Readistep, the SESAT, and the SAT-10. Each of the assessments were administered one time during the school year in Grade 8 and K-2. Students in eighth grade were administered 10 school district mandated assessments during the 2013-2014 school year, the greatest number of all school district mandated assessments. Reading, mathematics, and science assessments were administered in Grade 8. Students in the twelfth grade were administered three reading assessments. The three school district mandated assessments were the least number of school district mandated assessments. Table 4 was developed using the publicly available 2013-2014 Dixie County School District Assessment Calendar and displays the information related to assessments included on the assessment calendar categorized by grade level.

Table 4

Dixie County School District Mandated Assessments by Grade Level

		Grade Level												
Assessment	Subject	K	1	2	3	4	5	6	7	8	9	10	11	12
Discovery Education Assessment 1	Reading	X	X	X	X	X	X	X	X	X			X	X
	Math	X	X	X	X	X	X	X	X	X	X	X	X	
	Science						X			X		X		
	ELA										X	X	X	
Discovery Education Assessment 2	Reading	X	X	X	X	X	X	X	X	X			X	X
	Math	X	X	X	X	X	X	X	X	X	X	X	X	
	Science						X			X		X		
	ELA										X	X	X	
Discovery Education Assessment 3	Reading	X	X	X	X	X	X	X	X	X			X	X
	Math	X	X	X	X	X	X	X	X	X	X	X	X	
	Science						X			X		X		
	ELA										X	X	X	
Readistep	Reading									X				
	Writing									X				
	Math									X				
SESAT	Reading	X												
	Math	X												
SAT 10	Reading		X	X										
	Math		X	X										
Total		8	8	8	6	6	9	6	6	12	6	9	9	3

Franklin County Assessments (Small)

School district mandated assessments used in Franklin County were determined through an examination of publicly available assessment calendars. Franklin County required assessments to be given in Grades K-12. The number of assessments varied by grade level (Franklin County School District, n.d). The highest number of school district

mandated assessments was found in Grade 8. Students in Grade 8 were required to complete 14 school district mandated assessments in the subjects of reading, math, science, and writing. The smallest number of school district mandated assessments were found in Grades 3-5. Students in Grades 3-5 were required to complete nine local assessments during the 2013-2014 school year. In Grades 6-10, students were required to complete 21 school district mandated assessments.

During the 2013-2014 school year, Franklin County used an assessment program from Discovery Education to assess reading and mathematics in Grades K-12. The Discovery Education assessments were given three times per year in a majority of grades. The exception to the general trend was an additional mathematics assessment administration in Grades 8-12. Franklin County also assessed students in the area of writing. Students in Grades K-10 were required to complete a writing assessment three times during the school year.

The remainder of school district mandated assessments were comprised of semester examinations including a mid-term assessment and a final assessment. The semester examinations were administered in each course in which students were enrolled. Core academic subjects included science, language arts, mathematics, and social studies. In addition, secondary students enrolled in elective courses such as fine arts and physical education were required to complete semester examinations. Semester examinations in Franklin County were limited to students enrolled in Grades 6-12. The IOWA test of basic skills was utilized in Grades K-2 to assess students enrolled in the respective

grades. Table 5 displays the school district mandated assessments as represented using publicly available assessment calendar of Franklin County.

Table 5

Franklin County School District Mandated Assessments by Grade Level

		Grade Level												
Assessment	Subject	K	1	2	3	4	5	6	7	8	9	10	11	12
Discovery Education	Reading	X	X	X	X	X	X	X	X	X	X	X	X	X
	Mathematics	X	X	X	X	X	X	X	X	X	X	X	X	X
Discovery Education	Mathematics									X	X	X	X	X
Discovery Education	Reading	X	X	X	X	X	X	X	X	X	X	X	X	X
	Mathematics	X	X	X	X	X	X	X	X	X	X	X	X	X
Discovery Education	Reading	X	X	X	X	X	X	X	X	X	X	X	X	X
	Mathematics	X	X	X	X	X	X	X	X	X	X	X	X	X
Writing Assessment	Writing	X	X	X	X	X	X	X	X	X	X	X		
Writing Assessment	Writing	X	X	X	X	X	X	X	X	X	X	X		
Franklin Writes	Writing	X	X	X	X	X	X	X	X	X	X	X		
IOWA-E	Reading	X	X	X										
Semester Examinations (Mid-Terms)	Mathematics							X	X	X	X	X	X	X
	Science							X	X	X	X	X	X	X
	ELA							X	X	X	X	X	X	X
	Social Studies							X	X	X	X	X	X	X
	Other							X	X	X	X	X	X	X
	Other							X	X	X	X	X	X	X
Semester Examinations (Finals)	Mathematics							X	X	X	X	X	X	X
	Science							X	X	X	X	X	X	X
	ELA							X	X	X	X	X	X	X
	Social Studies							X	X	X	X	X	X	X
	Other							X	X	X	X	X	X	X
	Other							X	X	X	X	X	X	X
Total		10	10	10	9	9	9	21	21	21	21	21	18	18

Gulf County Assessments (Small)

School district mandated assessments used in Gulf County were determined through an examination of publicly available assessment calendars. Gulf County required assessments to be given in Grades K-12 (Gulf District Schools, n.d.). The School District of Gulf County required six assessments in all grades, K-12. The school district mandated assessments were in the subjects of reading, mathematics, and science and were administered at the beginning of the school year and the beginning of the second academic semester. The assessments were identified as Baseline and Mid-point respectively. The school district mandated assessments of Gulf County were determined using publicly available school district assessment calendars and are displayed in Table 6.

Table 6

Gulf County School District Mandated Assessments by Grade Level

		Grade Level												
Assessment	Subject	K	1	2	3	4	5	6	7	8	9	10	11	12
Baseline	Math	X	X	X	X	X	X	X	X	X	X	X	X	X
	Reading	X	X	X	X	X	X	X	X	X	X	X	X	X
	Science	X	X	X	X	X	X	X	X	X	X	X	X	X
Mid-Point	Math	X	X	X	X	X	X	X	X	X	X	X	X	X
	Reading	X	X	X	X	X	X	X	X	X	X	X	X	X
	Science	X	X	X	X	X	X	X	X	X	X	X	X	X
Total		6	6	6	6	6	6	6	6	6	6	6	6	6

Citrus County Assessments (Medium)

Citrus County Assessments were determined through an examination of publicly available assessment calendars. The 2012-2013 Assessment Calendar included the Citrus Benchmark Assessment Test (CBAT) (Citrus County Schools, 2012). The 2014-2015 Assessment Calendar also included the CBAT (Citrus County Schools, 2014). The 2013-2014 Assessment Calendar did not, however, include the CBAT (Citrus County Schools, 2013). In order to determine whether the CBAT was given during the 2013-2014 school year, it was necessary to investigate further. The Citrus County School Improvement Plan was examined, and it was discovered that the CBAT was used during the 2013-2014 school year but the published assessment calendar only included state-mandated assessment (FDOE, 2013). The examination of assessments used in Citrus County reflected the use of CBAT during the 2013-2014 school year. School district mandated assessments in Citrus County were limited to Grades 3-12. No school district mandated assessments were discovered for use in grades K-2. The CBAT was the only district-mandated assessment. The CBAT was given three times during the 2013-2014 school year in the subjects of reading, mathematics, and science. The CBAT was given at the end of the first, second, and fourth marking periods. There was no CBAT given at the end of the third marking period due to state-mandated assessment. Table 7 displays the school district mandated assessments in Citrus County by grade level.

Table 7

Citrus County School District Mandated Assessments

		Grade Level												
Assessment	Subject	K	1	2	3	4	5	6	7	8	9	10	11	12
CBAT	Reading				X	X	X	X	X	X	X	X	X	X
	Math				X	X	X	X	X	X	X	X	X	X
	Science				X	X	X	X	X	X	X	X	X	X
CBAT	Reading				X	X	X	X	X	X	X	X	X	X
	Math				X	X	X	X	X	X	X	X	X	X
	Science				X	X	X	X	X	X	X	X	X	X
CBAT	Reading				X	X	X	X	X	X	X	X	X	X
	Math				X	X	X	X	X	X	X	X	X	X
	Science				X	X	X	X	X	X	X	X	X	X
Total					9	9	9	9	9	9	9	9	9	9

Indian River County Assessments (Medium)

School district mandated assessments used in Indian River County were determined through an examination of publicly available assessment calendars. Indian River County required assessments to be given in Grades K-11 (School District of Indian River County, 2014). There were no school-district mandated assessments in Grade 12. The number of assessments varied by grade level. The maximum number of school-district-mandated assessments was found in Grades 3 and 7. Students in Grades 3 and 7 were required to complete 14 school district mandated assessments in the subjects of reading, math, science, and writing. Excluding Grade 12, the minimum number of school district mandated assessments was found in Grade 11. In Grade 11, students were required to complete three school district mandated assessments. The assessments in

Grade 11 were in the subject of social studies in alignment with the state-mandated United States History End of Course Exam.

Indian River County's local assessment calendar included a gradual introduction of assessment in Grade K-2. The BMT was used in Indian River County to assess students in reading, math, social studies, and science. In kindergarten, students were not required to complete the BMT until the end of the second marking period. At the end of the second marking period, kindergarteners were required to complete the mathematics BMT. This was repeated for the third marking period. In Grade 1, students continued the mathematics BMT and the reading BMT was required at the end of the second marking period. The use of the mathematics and reading BMT continued until Grade 3. In Grade 3, students were required to complete the reading, mathematics, and science BMT at the end of the first three marking periods. In addition, a fourth administration was required at the end of the fourth marking period and was not required at any other Grade level. Grades 7 and 11 were required to complete the reading, math, and science BMTs as well as the social studies BMT. The social studies BMT was required in those grades in order to assess students required to complete the state-mandated Civics and U.S. History End of Course Exam. Table 8 displays the school district mandated assessments for Indian River County included on the assessment calendar categorized by grade level.

Table 8

Indian River County School District Mandated Assessments

		Grade Level												
Assessment	Subject	K	1	2	3	4	5	6	7	8	9	10	11	12
BMT 1	Reading			X	X	X	X	X	X	X	X	X		
	Math		X	X	X	X	X	X	X	X	X	X		
	Science				X	X	X	X	X	X	X	X		
	Social Studies								X				X	
BMT 2	Reading		X	X	X	X	X	X	X	X	X	X		
	Math	X	X	X	X	X	X	X	X	X	X	X		
	Science				X	X	X	X	X	X	X	X		
	Social Studies								X				X	
BMT 3	Reading		X	X	X	X	X	X	X	X	X	X		
	Math	X	X	X	X	X	X	X	X	X	X	X		
	Science				X	X	X	X	X	X	X	X		
	Social Studies								X				X	
BMT 4	Reading				X									
Prompt 1	Writing	X	X	X	X	X	X	X	X	X	X	X		
Prompt 2	Writing	X	X	X	X	X	X	X	X	X	X	X		
DIBELS	Reading	X	X											
SAT 10	Reading	X	X	X	X									
	Mathematics	X	X	X	X									
Total		7	10	10	14	11	11	11	14	11	11	11	3	0

Nassau County Assessments (Medium)

School district mandated assessments required by Nassau County were determined using publicly available assessment calendars. Students in Nassau County were required to complete local assessments in Grades 3-12 (Nassau County School District, n.d.). The school district mandated assessments measured student performance in the areas of reading, mathematics, and science three times per year. No school district-mandated assessment was required of students in Grades K-2. There were nine school district mandated assessments in each of Grades 3-12. The assessments were comprised

of a beginning of year, middle of year, and end of year assessment in each of the three assessed subject areas. Table 9 contains the school district-mandated assessments in Nassau County as determined using information contained in publicly available local assessment calendars.

Table 9

Nassau County School District Mandated Assessments

		Grade Level												
Assessment	Subject	K	1	2	3	4	5	6	7	8	9	10	11	12
Beginning of Year	Reading				X	X	X	X	X	X	X	X	X	X
	Math				X	X	X	X	X	X	X	X	X	X
	Science				X	X	X	X	X	X	X	X	X	X
Middle of Year	Reading				X	X	X	X	X	X	X	X	X	X
	Math				X	X	X	X	X	X	X	X	X	X
	Science				X	X	X	X	X	X	X	X	X	X
End of Year	Reading				X	X	X	X	X	X	X	X	X	X
	Math				X	X	X	X	X	X	X	X	X	X
	Science				X	X	X	X	X	X	X	X	X	X
Total					9	9	9	9	9	9	9	9	9	9

Broward County Assessments (Large)

School district mandated assessments used in Broward County were determined through an examination of publicly available assessment calendars. Broward County required assessments to be given in Grades 1-12. The number of assessments varied by grade level (Broward County Public Schools, 2013). School district-mandated benchmark assessments were required for writing, reading, mathematics, and science. In addition, semester examinations were required in language arts, mathematics, science,

social studies, and each course in which a student was enrolled. School district mandated gifted screening was required in Grade 2. The SAT-10 and the Primary Reading Assessment were also mandated by the school district for completion at the elementary level. Kindergarten students were not subject to school district mandated assessment.

The highest number of school district mandated assessment was determined to occur in Grade10. Students in Grade 10 were required to complete 20 school district mandated assessments. The assessments locally mandated for Grade 10 students included the Benchmark Assessment Test (BAT) in reading, mathematics, and science. In addition, Grade 10 students were required to participate in school district mandated writing assessment two times per school year, and semester exams were required at the end of the first and second semesters.

Excluding kindergarten, (zero school district mandated assessments), Grade 1 students were required to complete the lowest number of school district mandated assessments in Broward County. Students in Grade 1 were required to complete two school district mandated assessments, both in the area of reading. Grade 1 students were not assessed in other content areas such as mathematics or science.

The BATs were required of students in Grades 3-12 in the areas of reading, mathematics, and science two times per year at the end of the first and second marking periods. School district mandated writing assessments were required of students in Grades 4, 8, and 10. Students in Grades 6-12 were required to complete semester examinations twice per school year at the end of the first and second academic semesters for each course in which they were enrolled. The BATs were not required for students in

Grades K-2. Students in first and second grade, were instead required to complete the primary reading assessment two times per school year. Additionally, Grade 3 students were required to complete the SAT-10 and Grade 2 students were required to complete the CogAT. Table 10 displays school district mandated assessment as reflected in publicly available assessment calendars in Broward County.

Table 10

Broward County School District Mandated Assessments

		Grade Level												
Assessment	Subject	K	1	2	3	4	5	6	7	8	9	10	11	12
District Writing Prompt	Writing					X				X		X		
	Writing					X				X		X		
BAT 1	Reading				X	X	X	X	X	X	X	X	X	X
	Math				X	X	X	X	X	X	X	X	X	X
	Science				X	X	X	X	X	X	X	X	X	X
BAT 2	Reading				X	X	X	X	X	X	X	X	X	X
	Math				X	X	X	X	X	X	X	X	X	X
	Science				X	X	X	X	X	X	X	X	X	X
Semester Exams (Mid-Term)	Reading										X	X	X	X
	Math										X	X	X	X
	Science										X	X	X	X
	Other										X	X	X	X
	Other										X	X	X	X
	Other										X	X	X	X
Semester Exams (Final)	Reading										X	X	X	X
	Math										X	X	X	X
	Science										X	X	X	X
	Other										X	X	X	X
	Other										X	X	X	X
	Other										X	X	X	X
Primary Reading Assessment (Mid-Year)	Reading		X	X										
Primary Reading Assessment (End of Year)	Reading		X	X										
CogAT	Gifted Screen			X										
SAT-10	Reading				X									
	Math				X									
Total		0	2	3	8	8	6	6	6	8	18	20	18	18

Duval County Assessments (Large)

School district mandated assessments used in Duval County were determined through an examination of publicly available assessment calendars. Duval County required assessments to be given in Grades K-12 (Duval County Public Schools, 2013). The school district mandated assessment in Duval County included the Curriculum Guide Assessment (CGA). The CGA is a locally developed test given five times per school year. In addition, the IOWA-E, DAR, CAST, iReady, and Mathematica assessments were used to monitor student performance throughout the school year. District end-of-course examinations were administered in Grades 6-12 twice per school year at the end of the first and second academic semester.

Students in Grade 8 received the greatest number of school district mandated test administrations. Grade 8 students are required to complete 41 school district mandated assessments. Students in kindergarten experienced the lowest amount of school district mandated assessment administration. Kindergarteners were required to complete 13 school district mandated assessments throughout the 2013-2014 school year. LAS Links was mandated by the school district to assess English language in Grades 3-5.

The CGA accounted for a majority of the school district mandated assessment in Duval County. The CGA was given at the beginning of the school year to collect baseline student data and at the end of the first, second and third marking periods as progress monitoring. The CGA was also given at the end of the school year as a summative assessment or post-test. The CGA was used to assess K-12 students' performance in the areas of ELA and Mathematics. Upon entrance into the fourth grade,

students took the science CGA for the first time. Administration of the science CGA continued through Grade 12. The introduction of CGAs in the subject areas of social studies, world languages, and transition classes were introduced in Grade 6 and continued as part of the school district mandated assessment plan through Grade 12. Physical education was assessed using the CGA in the second and fifth grades but was not assessed at other grade levels.

In addition to subject areas assessed by the CGAs, timed writing assessment was mandated in Grades 4, and 7-10. The timed writing assessment was given two times per school year in Grades 4, 8, and 10. Mandated administration was limited to one time in the remaining listed grade levels. The IOWA-E was used to assess reading in Grades 1-12 and was administered two times per school year in each grade except Grade 12 where it was administered only once. The DAR was also used to assess reading in Grades 1-10.

Mathematics performance was assessed using Mathematica and i-Ready in addition to the CGAs. Mathematica was administered once in Grade 4. No other grade levels were assessed using Mathematica. I-Ready was used to assess students in Grades 1-9. Table 11 was developed using the 2013-2014 Duval County School District Assessment Calendars and displays the county's school district mandated assessments.

Table 11

Duval County School District Mandated Assessments

		Grade Level												
Assessment	Subject	K	1	2	3	4	5	6	7	8	9	10	11	12
CGA (Baseline)	ELA	X	X	X	X	X	X	X	X	X	X	X	X	X
	Math	X	X	X	X	X	X	X	X	X	X	X	X	X
	Science					X	X	X	X	X	X	X	X	X
	Music						X							
	Art						X							
	Social Studies							X	X	X	X	X	X	X
	Transition Classes							X	X	X	X	X	X	X
	World Languages							X	X	X	X	X	X	X
	PE			X			X							
CGA 1	ELA	X	X	X	X	X	X	X	X	X	X	X	X	X
	Math	X	X	X	X	X	X	X	X	X	X	X	X	X
	Science					X	X	X	X	X	X	X	X	X
	Music						X							
	Art						X							
	Social Studies							X	X	X	X	X	X	X
	Transition Classes							X	X	X	X	X	X	X
	World Languages							X	X	X	X	X	X	X
	PE			X			X							
CGA 2	ELA	X	X	X	X	X	X	X	X	X	X	X	X	X
	Math	X	X	X	X	X	X	X	X	X	X	X	X	X
	Science					X	X	X	X	X	X	X	X	X
	Music						X							
	Art						X							
	Social Studies							X	X	X	X	X	X	X
	Transition Classes							X	X	X	X	X	X	X
	World Languages							X	X	X	X	X	X	X
	PE			X			X							
CGA 3	ELA	X	X	X	X	X	X	X	X	X	X	X	X	X
	Math	X	X	X	X	X	X	X	X	X	X	X	X	X
	Science					X	X	X	X	X	X	X	X	X
	Music						X							
	Art						X							

		Grade Level												
Assessment	Subject	K	1	2	3	4	5	6	7	8	9	10	11	12
	Social Studies							X	X	X	X	X	X	X
	Transition Classes							X	X	X	X	X	X	X
	World Languages							X	X	X	X	X	X	X
	PE			X			X							
CGA (Post)	ELA	X	X	X	X	X	X	X	X	X	X	X	X	X
	Math	X	X	X	X	X	X	X	X	X	X	X	X	X
	Science					X	X	X	X	X	X	X	X	X
	Music						X							
	Art						X							
	Social Studies							X	X	X	X	X	X	X
	Transition Classes							X	X	X	X	X	X	X
	World Languages							X	X	X	X	X	X	X
	PE			X			X							
Timed Assessment	Writing					X				X		X		
	Writing					X			X	X	X	X		
IOWA-E	Reading		X	X	X	X	X	X	X	X	X	X	X	X
	Reading		X	X	X	X	X	X	X	X	X	X	X	
DAR	Reading		X	X	X	X	X	X	X	X	X	X		
CAST 1	Other	X	X	X	X	X	X	X	X	X	X	X	X	X
CAST 2	Other							X	X	X	X	X	X	X
Mathmatica	Math					X								
I-Ready	Math	X	X	X	X	X	X	X	X	X	X			
I-Ready	Math	X	X	X	X	X	X	X	X	X	X			
LAS LINKS	English Language				X	X	X							
District EOC (Mid-Term)	Other							X	X	X	X	X	X	X
District EOC (Final)	Other							X	X	X	X	X	X	X
Total		13	16	21	17	25	37	39	40	41	40	39	36	35

Hillsborough County Assessments (Large)

School district mandated assessments used in Hillsborough County were determined through an examination of publicly available assessment calendars. Hillsborough County required assessments to be given in Grades K-12 (Hillborough County Public Schools, 2013). The number of assessments varied by grade level. The greatest number of school district mandated assessments were required of students in Grade 8. Students in Grade 8 were required to complete 37 school district mandated assessments. The least number of school district mandated assessments in Hillsborough County was four by kindergarten students. Students enrolled in kindergarten were required to complete the Kindergarten Readiness Test (KRT) two times per school year.

Hillsborough County School District mandated assessments encompass the areas of reading, mathematics, science, writing, physical education, art, music, world language, driver's education, English language arts, career and technical education (CTE), dance, and social studies. Each course in which students in Grades 6-12 were enrolled included school district mandated midterm examinations and final examinations. Formative assessments in mathematics took place three times per school year and were mandated by the school district in Grades 3-10. Formative assessments in science were required in Grades 5, 8, and 10 and occurred two times per school year. Additionally, writing formative assessments were mandated to be administered twice each year by the school district in Grades 6, 7, 8, and 10.

Students in Grades 1-5 were required to complete the SAT-10 in the subjects of reading and mathematics. District assessments in art, music, physical education, and

dance were also required for students in Grades 1-5. Hillsborough County required kindergarten students to complete end-of-year assessments in the subjects of mathematics and science. The science end-of-year assessment was also required for students through Grade 4 and a writing end-of-year assessment was required for students in Grade 3. FitnessGram was mandated by the school district in Grades 2, 5, 6, 7, and 8 to assess physical education. FitnessGram was given two times per school year at the mandated grade levels. Readistep is an additional assessment required for Grade 7 students in reading. The school district mandated assessments required in Hillsborough County are displayed in Table 12. The school district mandated assessments in Hillsborough County were determined using publicly available school district assessment calendars.

Table 12

Hillsborough County School District Mandated Assessments

		Grade Level												
Assessment	Subject	K	1	2	3	4	5	6	7	8	9	10	11	12
Formative A	Math				X	X	X	X	X	X	X	X		
	Science						X			X		X		
	Writing							X	X	X		X		
Formative B	Math				X	X	X	X	X	X	X	X		
	Science						X			X		X		
	Writing							X	X	X		X		
Formative C	Math										X	X		
FitnessGram (Pretest)	PE			X			X	X	X	X				
FitnessGram (Posttest)	PE			X			X	X	X	X				
KRT (pretest)	Other	X												
KRT (posttest)	Other	X												
Fall Pretest	Art								X	X	X	X	X	X
	World Language								X	X	X	X	X	X
	ROTC								X	X	X	X	X	X
	Music								X	X	X	X	X	X
	CTE								X	X	X	X	X	X
	ELA								X	X	X	X	X	X
	Drivers Ed								X	X	X	X	X	X
Spring Pretest	Art								X	X	X	X	X	X
	World Language								X	X	X	X	X	X
	ROTC								X	X	X	X	X	X
	Music								X	X	X	X	X	X
	CTE								X	X	X	X	X	X
	ELA								X	X	X	X	X	X
	Drivers Ed								X	X	X	X	X	X
Readistep	Readistep								X					
District Exam	Writing												X	X
	Writing												X	X
	Writing													X
Midterm Exam	Science							X	X	X	X	X	X	X
	Math							X	X	X	X	X	X	X

		Grade Level												
Assessment	Subject	K	1	2	3	4	5	6	7	8	9	10	11	12
	ELA							X	X	X	X	X	X	X
	Social Studies							X	X	X	X	X	X	X
	Other							X	X	X	X	X	X	X
	Other							X	X	X	X	X	X	X
Final Exam	Science							X	X	X	X	X	X	X
	Math							X	X	X	X	X	X	X
	ELA							X	X	X	X	X	X	X
	Social Studies							X	X	X	X	X	X	X
	Other							X	X	X	X	X	X	X
	Other							X	X	X	X	X	X	X
FCAT 2.0 Practice Test	Math							X	X	X				
SAT-10	Reading		X	X	X	X	X	X	X	X	X	X		
	Math		X	X	X	X	X	X	X	X	X	X		
District Assessment	Art		X	X	X	X	X							
	Music		X	X	X	X	X							
	PE		X	X	X	X	X							
	Dance		X	X	X	X	X							
District EOY	Math	X												
	Science	X	X	X	X	X								
	Writing				X									X
Total		4	7	9	10	9	12	21	36	37	31	35	28	30

Summary

Examination of district-mandated assessments revealed that greatest numbers of assessments were mandated in grade 3, 8, and 10. Grades 3, 8, and 10 were also those grades primarily assessed through state-mandated assessments. School district-mandated assessments may have been used for prediction of student outcomes on state-mandated assessments. Prediction of student outcomes was important due to the data-driven

accountability that was reliant on student achievement as measured through state-mandated assessment.

Large school districts mandated greater numbers of assessments across all grade levels when compared to medium and small school districts. This finding may be a result of greater oversight necessary within larger organizations. Findings may also be a reflection of greater levels of financial support and freedom within large school districts. Large school districts may have greater access to alternative funding sources due to relatively greater diversity among the student population within large school districts relative to diversity among student populations represented in small and medium school districts.

Data Analysis for Research Question 2

How many minutes are used in preparation for mandated assessments administered in Florida's school districts?

Data from Research Question 1 were used in arriving at the response to Research Question 2. The rubric presented in Chapter 3 (see Table 1) was used to further categorize mandated assessments administered in Florida's school districts. Hourly preparation time reflected in the rubric were converted to minutes of assessment preparation time through multiplication of number of hours reflected in the rubric by sixty.

Data were disaggregated using a rubric relating time spent in preparation to the relative significance of the test to schools and students. It was an adaptation of a rubric

created by Nelson (2013) in his study of time spent in preparation for assessments in school districts. In order to determine significance of an assessment, the rubric allowed for delineation between high-stakes and low-stakes assessment.

High-stakes assessments were those assessments that had an impact on school grade, but low-stakes assessments did not. In addition, the rubric included the student-centered aspect of impact on course grade. The rubric allowed for separation of assessments into low-grade and high-grade as related to course impact. A high-grade assessment had an impact greater than 15% on a student's course grade or influenced the credits received for the course. Assessment preparation time for all grade levels were summed in order to provide total amounts of assessment preparation minutes for state and school district-mandated assessments across all grade levels.

State Mandated Assessments

Table 13 displays the preparation time determined for the state mandated assessments used in the study. The minimum number of minutes used for assessment preparation were found in Grades1 and 2. For students in Grades 1 and 2, 300 minutes were used for assessment preparation. The highest number of assessment preparation minutes were found in Grades 11 and 12. For students in Grades 11 and 12, 12,600 minutes were used for assessment preparation.

Table 13

Preparation Time for State Assessments (in Minutes) by Grade Level

	Grade Level													
Assessment	K	1	2	3	4	5	6	7	8	9	10	11	12	All Grades
FCAT 2.0	0	0	0	3600	3600	7200	2400	2400	4800	2400	3600	0	0	
FCAT 2.0 Retakes	0	0	0	0	0	0	0	0	0	0	0	3600	3600	
EOC	0	0	0	0	0	0	0	0	0	3600	3600	4800	4800	
FLKRS	120	0	0	0	0	0	0	0	0	0	0	0	0	
FAIR	300	300	300	300	0	0	0	0	0	0	0	0	0	
PERT	0	0	0	0	0	0	0	0	0	0	3600	3600	3600	
AP	0	0	0	0	0	0	0	0	0	600	600	600	600	
Total	420	300	300	3900	3600	7200	2400	2400	4800	6600	11400	12600	12600	68520

In order to provide perspective it was determined that the students' school year was composed of 64,800 minutes. The figure was determined by multiplying the 180 day school year by six hours per day by 60 minutes per hour (Florida Statute 1001.42). When the sum of school year minutes were calculated accounting for all grade levels combined, a total of 842,400 minutes of allocated time were provided for each school district. The sum was found by multiplying 64,800 by the number of grade levels served by school district, 13. The sum of minutes used in preparation for state mandated assessments across grade levels was 68,520 minutes. The sum of preparation minutes was used to find total time used for school districts' assessment preparation. The comparisons are displayed in Table 14.

Table 14

Mean School District and State Assessment Preparation Time by District Size

	Assessment Preparation Time (in minutes)		
Size	School District	State	Combined Total
Small	105,340	68,520	173,860
Medium	84,920	68,520	153,440
Large	145,780	68,520	214,300

Small School District Assessment Preparation Time

Tables 15, 16, and 17 display the preparation time determined for school district mandated and state mandated assessments used in the three small school districts in the

sample (Dixie, Franklin and Gulf County Public Schools) during the 2013-2014 school year.

Dixie County School District

For the Dixie County School District (Table 15), the smallest number of minutes used for assessment preparation were found in Grades1 and 2 where 2,700 minutes were used. The highest number of assessment preparation minutes were found in Grade 11 where 13,200 minutes were used.

Franklin County School District

For the Franklin County Public School District (Table 16), the smallest number of minutes used for assessment preparation during the 2013-2014 school year were found in Grades 1 and 2 where 3,600 minutes were used for assessment preparation. The highest number of assessment preparation minutes were found in Grade 11 and 12 where 20,700 minutes were used.

Gulf County School District

For Gulf County Public Schools (Table 17), the lowest number of minutes used for assessment preparation for both state and school district were found in Grades 1 and 2, a total of 1,020 minutes. The highest number of assessment preparation minutes were found in Grades 11 and 12 where 12,120 minutes were devoted to assessment preparation.

Table 15

Dixie County School District Assessment Preparation Time (in Minutes)

	Grade Level													
Assessment	K	1	2	3	4	5	6	7	8	9	10	11	12	All Grades
Discovery Education Assessment 1	600	600	600	600	600	600	600	600	600	600	600	600	300	
Discovery Education Assessment 2	600	600	600	600	600	600	600	600	600	600	600	600	300	
Discovery Education Assessment 3	600	600	600	600	600	600	600	600	600	600	600	600	300	
Readistep	0	0	0	0	0	0	0	0	600	0	0	0	0	
SESAT	600	0	0	0	0	0	0	0	0	0	0	0	0	
SAT 10	0	600	600	0	0	0	0	0	0	0	0	0	0	
Total (School District)	2400	2400	2400	1800	1800	1800	1800	1800	2400	1800	1800	1800	900	
Total (State)	420	300	300	3900	3600	7200	2400	2400	4800	6600	10200	11400	11400	
Overall	2820	2700	2700	5700	5400	9000	4200	4200	7200	8400	12000	13200	12300	89820

Table 16

Franklin County School District Assessment Preparation Time (in Minutes)

	Grade Level													
Assessment	K	1	2	3	4	5	6	7	8	9	10	11	12	All Grades
Discovery Education	600	600	600	600	600	600	600	600	600	600	600	600	600	
Discovery Education	0	0	0	0	0	0	0	0	300	300	300	300	300	
Discovery Education	600	600	600	600	600	600	600	600	600	600	600	600	600	
Discovery Education	600	600	600	600	600	600	600	600	600	600	600	600	600	
Writing Assessment	300	300	300	300	300	300	300	300	300	300	300	0	0	
Writing Assessment	300	300	300	300	300	300	300	300	300	300	300	0	0	
Franklin Writes	300	300	300	300	300	300	300	300	300	300	300	0	0	
IOWA-E	600	600	600	0	0	0	0	0	0	0	0	0	0	
Semester Exams (Mid-Terms)	0	0	0	0	0	0	3600	3600	3600	3600	3600	3600	3600	
Semester Exams (Finals)	0	0	0	0	0	0	3600	3600	3600	3600	3600	3600	3600	
Total (School District)	3300	3300	3300	2700	2700	2700	9900	9900	10200	10200	10200	9300	9300	
Total (State)	420	300	300	3900	3600	7200	2400	2400	4800	6600	10200	11400	11400	
Overall	3720	3600	3600	6600	6300	9900	12300	12300	15000	16800	20400	20700	20700	151920

Table 17

Gulf County School District Assessment Preparation Time (in Minutes)

	Grade Level													
Assessment	K	1	2	3	4	5	6	7	8	9	10	11	12	All Grades
Baseline	120	120	120	120	120	120	120	120	120	120	120	120	120	
Mid-Point	600	600	600	600	600	600	600	600	600	600	600	600	600	
Total (School District)	720	720	720	720	720	720	720	720	720	720	720	720	720	
Total (State)	420	300	300	3900	3600	7200	2400	2400	4800	6600	10200	11400	11400	
Overall	1140	1020	1020	4620	4320	7920	3120	3120	5520	7320	10920	12120	12120	74280

Medium Size School District Assessment Preparation Time

Tables 18, 19, and 20 display the preparation time determined for school district mandated and state mandated assessments used in the three medium sized school districts in the sample (Citrus, Indian River, and Nassau County Public Schools) during the 2013-2014 school year.

Citrus County School District

Table 18 displays the preparation time determined for school district mandated and state mandated assessments used in Citrus County Public Schools during the 2013-2014 school year. The least number of minutes (300) used for assessment preparation were found in Grades 1 and 2. The highest number of assessment preparation minutes were found in Grade 11 and 12 where a total of 13,200 minutes were used.

Indian River County School District

For Indian River County Public Schools (Table 19), the lowest number of minutes used for assessment preparation during the 2013-2014 school year was found in kindergarten where a total of 2,220 minutes were devoted to the preparation for assessments. The highest number of assessment preparation minutes were found in Grade 10 where 12,600 minutes were used.

Nassau County School District

Table 20 displays the preparation time determined for school district mandated and state mandated assessments used in Nassau County Public Schools during the 2013-2014 school year. The smallest number of minutes used for assessment preparation was found in Grades 1 and 2 where 300 minutes were used. The highest number of assessment preparation minutes were found in Grades 11 and 12 where 12,720 minutes were used.

Table 18

Citrus County School District Assessment Preparation Time (in Minutes)

	Grade Level													
Assessment	K	1	2	3	4	5	6	7	8	9	10	11	12	All Grades
CBAT	0	0	0	600	600	600	600	600	600	600	600	600	600	
CBAT	0	0	0	600	600	600	600	600	600	600	600	600	600	
CBAT	0	0	0	600	600	600	600	600	600	600	600	600	600	
Total (School District)	0	0	0	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	
Total (State)	420	300	300	3900	3600	7200	2400	2400	4800	6600	10200	11400	11400	
Overall	420	300	300	5700	5400	9000	4200	4200	6600	8400	12000	13200	13200	82920

Table 19

Indian River School District Assessment Preparation Time (in Minutes)

	Grade Level													
Assessment	K	1	2	3	4	5	6	7	8	9	10	11	12	All Grades
BMT 1	0	600	600	600	600	600	600	600	600	600	600	300	0	
BMT 2	300	600	600	600	600	600	600	600	600	600	600	300	0	
BMT 3	300	600	600	600	600	600	600	600	600	600	600	300	0	
BMT 4	0	0	0	300	0	0	0	0	0	0	0	0	0	
Prompt 1	300	300	300	300	300	300	300	300	300	300	300	0	0	
Prompt 2	300	300	300	300	300	300	300	300	300	300	300	0	0	
SAT 10	600	600	600	600	0	0	0	0	0	0	0	0	0	
Total (School District)	1800	3000	3000	3300	2400	2400	2400	2400	2400	2400	2400	900	0	
Total (State)	420	300	300	3900	3600	7200	2400	2400	4800	6600	10200	11400	11400	
Overall	2220	3300	3300	7200	6000	9600	4800	4800	7200	9000	12600	12300	11400	93720

Table 20

Nassau County School District Assessment Preparation Time (in Minutes)

	Grade Level													
Assessment	K	1	2	3	4	5	6	7	8	9	10	11	12	All Grades
Beginning of Year	0	0	0	120	120	120	120	120	120	120	120	120	120	
Middle of Year	0	0	0	600	600	600	600	600	600	600	600	600	600	
End of Year	0	0	0	600	600	600	600	600	600	600	600	600	600	
Total (School District)	0	0	0	1320	1320	1320	1320	1320	1320	1320	1320	1320	1320	
Total (State)	420	300	300	3900	3600	7200	2400	2400	4800	6600	10200	11400	11400	
Overall	420	300	300	5220	4920	8520	3720	3720	6120	7920	11520	12720	12720	78120

Large School District Assessment Preparation Time (in Minutes)

Tables 21, 22, and 23 display the preparation time determined for school district mandated and state mandated assessments used in the three large school districts in the sample (Broward, Duval, and Hillsborough County Public Schools) during the 2013-2014 school year.

Broward County School District

Table 21 displays the preparation time determined for school district mandated and state mandated assessments used in Broward County Public Schools during the 2013-2014 school year. The least number of minutes used for assessment preparation were found in kindergarten where 420 preparation minutes were used. The highest number of assessment preparation minutes (19,800) were used in Grades 11 and 12.

Duval County School District

Table 22 contains the preparation time determined for school district mandated and state mandated assessments used in Duval County Public Schools during the 2013-2014 school year. The fewest number of minutes used for assessment preparation were found in kindergarten, a total of 3,660 minutes. The highest number of assessment preparation minutes were found in Grade 11 and 12 where a total of 22,140 minutes were used for this purpose of preparation.

Table 23 displays the preparation time determined for school district mandated and state mandated assessments used in Hillsborough County Public Schools during the 2013-2014 school year. Again, the smallest number of minutes (2,640) used for

assessment preparation were found in kindergarten. The highest number of assessment preparation minutes were found in Grade 10 where 19,740 minutes were used.

Table 21

Broward County School District Assessment Preparation Time (in Minutes)

	Grade Level													
Assessment	K	1	2	3	4	5	6	7	8	9	10	11	12	All Grades
District Writing Prompt 1	0	0	0	0	300	0	0	0	300	0	300	0	0	
District Writing Prompt 2	0	0	0	0	300	0	0	0	300	0	300	0	0	
BAT 1	0	0	0	600	600	600	600	600	600	600	600	600	600	
BAT 2	0	0	0	600	600	600	600	600	600	600	600	600	600	
Semester Exams (Mid-Term)	0	0	0	0	0	0	0	0	0	3600	3600	3600	3600	
Semester Exams (Final)	0	0	0	0	0	0	0	0	0	3600	3600	3600	3600	
Primary Reading Assessment (Mid-Year)	0	300	300	0	0	0	0	0	0	0	0	0	0	
Primary Reading Assessment (End of Year)	0	300	300	0	0	0	0	0	0	0	0	0	0	
SAT-10	0	0	0	600	0	0	0	0	0	0	0	0	0	
Total (School District)	0	600	600	1800	1800	1200	1200	1200	1800	8400	9000	8400	8400	
Total (State)	420	300	300	3900	3600	7200	2400	2400	4800	6600	10200	11400	11400	
Overall	420	900	900	5700	5400	8400	3600	3600	6600	15000	19200	19800	19800	109320

Table 22

Duval County School District Assessment Preparation Time (in Minutes)

	Grade Level													
Assessment	K	1	2	3	4	5	6	7	8	9	10	11	12	All Grades
CGA (Baseline)	120	120	120	120	120	120	120	120	120	120	120	120	120	
CGA 1	600	600	600	600	600	600	600	600	600	600	600	600	600	
CGA 2	600	600	600	600	600	600	600	600	600	600	600	600	600	
CGA 3	600	600	600	600	600	600	600	600	600	600	600	600	600	
CGA (Post)	600	600	600	600	600	600	600	600	600	600	600	600	600	
Timed Assessment 1	0	0	0	0	300	0	0	0	300	0	300	0	0	
Timed Assessment 2	0	0	0	0	300	0	0	300	0	300	300	0	0	
IOWA-E	0	600	600	600	600	600	600	600	600	600	600	600	600	
CAST 1	120	120	120	120	120	120	120	120	120	120	120	120	120	
CAST 2	0	0	0	0	0	0	300	300	300	300	300	300	300	
Mathmatica	0	0	0	0	300	0	0	0	0	0	0	0	0	
I-Ready 1	300	300	300	300	300	300	300	300	300	300	0	0	0	
I-Ready 2	300	300	300	300	300	300	300	300	300	300	0	0	0	
District EOC (Mid-Term)	0	0	0	0	0	0	3600	3600	3600	3600	3600	3600	3600	
District EOC (Final)	0	0	0	0	0	0	3600	3600	3600	3600	3600	3600	3600	
Total (School District)	3240	3840	3840	3840	4740	3840	11340	11640	11640	11640	11340	10740	10740	
Total (State)	420	300	300	3900	3600	7200	2400	2400	4800	6600	10200	11400	11400	
Overall	3660	4140	4140	7740	8340	11040	13740	14040	16440	18240	21540	22140	22140	167340

Table 23

Hillsborough County School District Assessment Preparation Time (in Minutes)

	Grade Level													
Assessment	K	1	2	3	4	5	6	7	8	9	10	11	12	All Grades
Formative A	0	0	0	300	300	600	600	600	600	300	600	0	0	
Formative B	0	0	0	300	300	600	600	600	600	300	600	0	0	
Formative C	0	0	0	0	0	0	0	0	0	300	300	0	0	
FitnessGram (Pretest)	0	0	120	0	0	120	120	120	120	0	0	0	0	
FitnessGram (Posttest)	0	0	300	0	0	300	300	300	300	0	0	0	0	
KRT (pretest)	120	0	0	0	0	0	0	0	0	0	0	0	0	
KRT (posttest)	300	0	0	0	0	0	0	0	0	0	0	0	0	
Fall Pretest	0	0	0	0	0	0	0	120	120	120	120	120	120	
Spring Pretest	0	0	0	0	0	0	0	120	120	120	120	120	120	
Readistep	0	0	0	0	0	0	0	300	0	0	0	0	0	
Writing Exam 1	0	0	0	0	0	0	0	0	0	0	0	300	300	
Writing Exam 2	0	0	0	0	0	0	0	0	0	0	0	300	300	
Writing Exam 3	0	0	0	0	0	0	0	0	0	0	0	0	300	
Midterm Exam	0	0	0	0	0	0	3600	3600	3600	3600	3600	3600	3600	
Final Exam	0	0	0	0	0	0	3600	3600	3600	3600	3600	3600	3600	
SAT-10	0	600	600	600	600	600	600	600	600	600	600	0	0	
District Assessment	0	3600	3600	3600	3600	3600	0	0	0	0	0	0	0	
District EOY	1800	900	900	1800	900	0	0	0	0	0	0	0	900	
Total (School District)	2220	5100	5520	6600	5700	5820	9420	9960	9660	8940	9540	8040	9240	
Total (State)	420	300	300	3900	3600	7200	2400	2400	4800	6600	10200	11400	11400	
Overall	2640	5400	5820	10500	9300	13020	11820	12360	14460	15540	19740	19440	20640	160680

Summary

Examination of district-mandated assessment preparation time revealed that greatest amounts of assessment preparation time were in Grades 10-12. The finding was due to the increase in high-stakes assessment as students neared graduation. If students did not demonstrate levels in accordance with graduation requirements, the were required to retake assessments. This led to a snowball effect in the higher grades. Those students who performed worst were the students who were met with the greatest amounts of assessment preparation time.

Large school districts required greater amounts of assessment preparation time across all grade levels when compared to medium and small school districts. This finding may be a result of greater oversight necessary within larger organizations. Findings may also be a reflection of greater levels of financial support and freedom within large school districts. Large school districts may have greater access to alternative funding sources due to relatively greater diversity among the student population within large school districts relative to diversity among student populations represented in small and medium school districts.

Data Analysis for Research Question 3

How many minutes are used to administer mandated assessments in Florida's school districts?

Assessments were administered during the time allocated for instruction according to statute. The administration of assessments provided a foundation for the

determination of school district allocated assessment time but was not the only factor. In addition to the time allocated for administration of mandated assessment, preparation time for each mandated assessment was a factor in the overall impact of allocated instructional time at the school district level. Research Question 2 used an assessment preparation rubric that assigned values to the relative significance of the assessments to the student and the organization. The "stakes" of the assessments were determined and combined with the grade implications of the assessment to determine the amount of allocated instructional time used in preparation for each mandated assessment. The stakes of the test measured the value of the organizational impact of each assessment, whereas the grades measured the value of individual student impact of each assessment.

Allocated assessment time was calculated by finding the sum of time for assessment preparation and time for assessment administration. Allocated time was determined through Florida Statute. School district allocated instructional time was calculated by subtracting allocated assessment time from allocated time. The resulting value was the allocated instructional time. The definition of allocated instructional time used in this study was inversely related to allocated assessment time. An increase in allocated instructional time results in a proportional decrease in allocated instructional time and when taken together were equal to total instructional time. The calculation for school districts' allocated assessment time (AAT) and allocated instructional time (AIT) are included in Appendix C. Florida Statute does not differentiate between total instructional time and allocated assessment time. The purpose of this study was to examine the relationship between the two.

State Mandated Assessments

In order to determine number of minutes used for assessment administration in school districts, it was first necessary to determine the administration time required for state mandated assessments. Table 24 displays the publicly available information in regard to time required to administer state mandated assessments (FDOE, 2014). The data related to state mandated assessment administration was determined using FDOE EOC and FCAT 2.0 Fact Sheets (FDOE, 2014).

Table 24

Administration Time (in Minutes) for State Mandated Assessments

		Grade Level												
Assessment	Subject	K	1	2	3	4	5	6	7	8	9	10	11	12
FCAT 2.0	Reading	0	0	0	140	140	140	140	140	140	140	140	0	0
	Math	0	0	0	140	140	140	140	140	140	140	140	0	0
	Writing	0	0	0	0	0	60	0	0	60	0	60	0	0
	Science	0	0	0	0	0	160	0	0	160	0	0	0	0
FCAT 2.0 Retakes	Reading	0	0	0	0	0	0	0	0	0	0	0	160	160
	Math	0	0	0	0	0	0	0	0	0	0	0	160	160
EOC	US History	0	0	0	0	0	0	0	0	0	0	0	160	160
	Biology 1	0	0	0	0	0	0	0	0	0	160	160	160	160
	Algebra 1	0	0	0	0	0	0	0	0	0	160	160	160	160
	Geometry	0	0	0	0	0	0	0	0	0	160	160	160	160
	Civics	0	0	0	0	0	0	0	160	0	0	0	0	0
FLKRS	Reading	30	0	0	0	0	0	0	0	0	0	0	0	0
FAIR	Reading	30	30	30	30	0	0	0	0	0	0	0	0	0
PERT	Reading	0	0	0	0	0	0	0	0	0	0	0	60	60
	Math	0	0	0	0	0	0	0	0	0	0	0	30	30
	Writing	0	0	0	0	0	0	0	0	0	0	0	30	30
AP		0	0	0	0	0	0	0	0	0	360	360	360	360
Total		60	30	30	310	280	500	280	440	500	1120	1180	1440	1440

Small School District Assessment Administration Time

Tables 25, 26, and 27 display the administration times determined for school district and state mandated assessments used in the three small school districts in the sample (Dixie, Franklin and Gulf County Public Schools) during the 2013-2014 school year. The tables provide a summary of the administration time necessary for each of the school district mandated assessments by grade level and subject area in the three small counties in the sample. The administration time was totaled at each grade level and the total administration time is displayed. The data contained in the tables were collected using publicly available test publisher information and the 45 minute assumed administration time.

Dixie County School District

The time needed for administration of each school district mandated assessment in Dixie County was determined using published testing materials from Discovery Education, ReadiStep, SAT-10, and SESAT. Materials available from Discovery Education provided information stating that for each administration of an assessment approximately 15 minutes of administration time was necessary. The Discovery Education Assessments were used to assess reading, mathematics, science, and English Language Arts in Dixie County. Separate administration times of 15 minutes were needed for each subject area assessed (Discovery Education, 2013).

The ReadiStep was administered once during the 2013-2014 school year in Dixie County. The only students assessed using the Readistep assessment were those in Grade

7. According to Readistep information, each subject area assessed was expected to require approximately 40 minutes of time. The Readistep was used to assess reading, mathematics, and writing.

The SESAT was used during the 2013-2014 school year in Dixie County to assess kindergarten students in the areas of reading, mathematics, and listening. According to the assessment manual from the College Board, the overall administration time needed to complete the SESAT was 150 minutes. The reading assessment was allotted 70 minutes, the mathematics and listening assessments were allotted 40 minutes each (Pearson, n.d.).

The SAT-10 was used during the 2013-2014 school year in Dixie County to assess second- and third-grade students in the areas of reading, mathematics, English language arts, listening, and spelling. The total time customarily needed for administration of the SAT-10, according to the assessment publisher, was 318 minutes (Pearson, n.d.). The time necessary for SAT-10 administration was provided as a guideline for administration time. The SAT-10 is an untimed test, and the time needed was an approximation by the College Board of commonly expected administration time. The usual time needed for the reading assessment of the SAT-10 was 130 minutes. The usual time needed for administration of the mathematics assessment was 72 minutes. The usual time needed for the ELA and listening assessments was 40 minutes each. Lastly, the spelling assessment of the SAT-10 was approximated to require 36 minutes of administration time.

Gulf County School District

For the Gulf County School District, administration time for school district mandated assessment was not readily available. The assessments used were locally developed, and no manual for assessment administration was publicly available. The use of 45 minutes as administration time per subject area was used to determine the total amount of administration time in each grade and subject area.

Franklin County School District

The Franklin County School District used Discovery Education Assessments to assess student performance in reading and mathematics. According to Discovery Education's publicly available assessment information, administration time was 30 minutes per subject area (Discovery Education, 2013). Franklin County required the assessments be given three to four times during the 2013-2014 school year, depending on grade level and subject area. The IOWA-E was used in kindergarten through Grade 2 to assess student performance in ELA, mathematics, reading, vocabulary, word analysis, and listening. The total time needed for administration of the IOWA-E was 163 minutes according to public documentation available from IOWA-E. Administration time for subject areas assessed using the IOWA-E ranged from 20 minutes for word analysis and vocabulary to 43 minutes for reading (Seton Testing Services, n.d.).

The school district mandated the use of assessments generated locally to measure student performance in the area of writing. The writing assessments were administered three times during the 2013-2014 school year. Mid-term and final examinations were

mandated by the school district in mathematics, social studies, ELA, and science. There were no publicly available administration time data for semester or writing assessments. Therefore, the assessments were assigned an administration time of 45 minutes.

Table 25

Administration Time (in Minutes) for Dixie County School District Assessments

		Grade Level												
Assessment	Subject	K	1	2	3	4	5	6	7	8	9	10	11	12
Discovery Education Assessment 1	Reading	15	15	15	15	15	15	15	15	15	0	0	15	15
	Math	15	15	15	15	15	15	15	15	15	15	15	15	0
	Science	0	0	0	0	0	15	0	0	15	0	15	0	0
	ELA	0	0	0	0	0	0	0	0	0	15	15	15	0
Discovery Education Assessment 2	Reading	15	15	15	15	15	15	15	15	15	0	0	15	15
	Math	15	15	15	15	15	15	15	15	15	15	15	15	0
	Science	0	0	0	0	0	15	0	0	15	0	15	0	0
	ELA	0	0	0	0	0	0	0	0	0	15	15	15	0
Discovery Education Assessment 3	Reading	15	15	15	15	15	15	15	15	15	0	0	15	15
	Math	15	15	15	15	15	15	15	15	15	15	15	15	0
	Science	0	0	0	0	0	15	0	0	15	0	15	0	0
	ELA	0	0	0	0	0	0	0	0	0	15	15	15	0
Readistep	Reading	0	0	0	0	0	0	0	0	40	0	0	0	0
	Math	0	0	0	0	0	0	0	0	40	0	0	0	0
	Writing	0	0	0	0	0	0	0	0	40	0	0	0	0
SESAT	Reading	70	0	0	0	0	0	0	0	0	0	0	0	0
	Math	40	0	0	0	0	0	0	0	0	0	0	0	0
	Listening	40	0	0	0	0	0	0	0	0	0	0	0	0
SAT 10	Reading	0	130	130	0	0	0	0	0	0	0	0	0	0
	Math	0	72	72	0	0	0	0	0	0	0	0	0	0

		Grade Level												
Assessment	Subject	K	1	2	3	4	5	6	7	8	9	10	11	12
	ELA	0	40	40	0	0	0	0	0	0	0	0	0	0
	Listening	0	40	40	0	0	0	0	0	0	0	0	0	0
	Spelling	0	36	36	0	0	0	0	0	0	0	0	0	0
Total (School District)		240	408	408	90	90	135	90	90	255	90	135	135	45
Total (State)		60	30	30	310	280	500	280	440	500	1120	1180	1440	1440
Overall Admin Time		300	438	438	400	370	635	370	530	755	1210	1315	1575	1485

Table 26

Administration Time (in Minutes) for Gulf County School District Assessments

		Grade Level												
Assessment	Subject	K	1	2	3	4	5	6	7	8	9	10	11	12
Baseline	Math	45	45	45	45	45	45	45	45	45	45	45	45	45
	Reading	45	45	45	45	45	45	45	45	45	45	45	45	45
	Science	45	45	45	45	45	45	45	45	45	45	45	45	45
Mid-Point	Math	45	45	45	45	45	45	45	45	45	45	45	45	45
	Reading	45	45	45	45	45	45	45	45	45	45	45	45	45
	Science	45	45	45	45	45	45	45	45	45	45	45	45	45
Total (School District)		270	270	270	270	270	270	270	270	270	270	270	270	270
Total (State)		60	30	30	310	280	500	280	440	500	1120	1180	1440	1440
Overall		330	300	300	580	550	770	550	710	770	1390	1450	1710	1710

Table 27

Administration Time (in Minutes) for Franklin County School District Assessments

		Grade Level												
Assessment	Subject	K	1	2	3	4	5	6	7	8	9	10	11	12
Discovery Education	Reading	30	30	30	30	30	30	30	30	30	30	30	30	30
	Mathematics	30	30	30	30	30	30	30	30	30	30	30	30	30
Discovery Education	Mathematics	0	0	0	0	0	0	0	0	30	30	30	30	30
Discovery Education	Reading	30	30	30	30	30	30	30	30	30	30	30	30	30
	Mathematics	30	30	30	30	30	30	30	30	30	30	30	30	30
Discovery Education	Reading	30	30	30	30	30	30	30	30	30	30	30	30	30
	Mathematics	30	30	30	30	30	30	30	30	30	30	30	30	30
Writing Assessment	Writing	45	45	45	45	45	45	45	45	45	45	45	0	0
Writing Assessment	Writing	45	45	45	45	45	45	45	45	45	45	45	0	0
Frankiln Writes	Writing	45	45	45	45	45	45	45	45	45	45	45	0	0
IOWA-E	ELA	25	25	25	0	0	0	0	0	0	0	0	0	0
	Mathematics	25	25	25	0	0	0	0	0	0	0	0	0	0
	Vocabulary	20	20	20	0	0	0	0	0	0	0	0	0	0
	Reading	43	43	43	0	0	0	0	0	0	0	0	0	0
	Word Analysis	20	20	20	0	0	0	0	0	0	0	0	0	0
	Listening	30	30	30	0	0	0	0	0	0	0	0	0	0
Semester Exams (Mid-Terms)	Mathematics	0	0	0	0	0	0	45	45	45	45	45	45	45
	Science	0	0	0	0	0	0	45	45	45	45	45	45	45
	ELA	0	0	0	0	0	0	45	45	45	45	45	45	45

		Grade Level												
Assessment	Subject	K	1	2	3	4	5	6	7	8	9	10	11	12
	Social Studies	0	0	0	0	0	0	45	45	45	45	45	45	45
	Other	0	0	0	0	0	0	45	45	45	45	45	45	45
	Other	0	0	0	0	0	0	45	45	45	45	45	45	45
Semester Exams (Finals)	Mathematics	0	0	0	0	0	0	45	45	45	45	45	45	45
	Science	0	0	0	0	0	0	45	45	45	45	45	45	45
	ELA	0	0	0	0	0	0	45	45	45	45	45	45	45
	Social Studies	0	0	0	0	0	0	45	45	45	45	45	45	45
	Other	0	0	0	0	0	0	45	45	45	45	45	45	45
	Other	0	0	0	0	0	0	45	45	45	45	45	45	45
Total (School District)		478	478	478	315	315	315	855	855	885	885	885	750	750
Total (State)		60	30	30	310	280	500	280	440	500	1120	1180	1440	1440
Overall		538	508	508	625	595	815	1135	1295	1385	2005	2065	2190	2190

Medium School District Assessment Administration Time

Tables 28, 29, and 30 display the administration times determined for school district and state mandated assessments used in the three medium size school districts in the sample (Gulf, Citrus, and Indian River County Public Schools) during the 2013-2014 school year. The tables provide a summary of the administration time necessary for each of the school district mandated assessments by grade level and subject area in the three medium size school districts in the sample. The administration time was totaled at each grade level and the total administration time is displayed. The data contained in the table were collected using publicly available test publisher information and the 45 minute assumed administration time.

Citrus County School District

Administration time for school district mandated assessment in Citrus County was not readily available. The assessments used were locally developed, and no manual for assessment administration was publicly available. The use of 45 minutes as administration time per subject area was used to determine the total amount of administration time in each grade and subject area. Citrus County mandated the use of the Citrus Benchmark Assessment Test (CBAT) in order to assess student performance in the areas of reading, mathematics, and science during the 2013-2014 school year.

Nassau County School District

As in Citrus County, administration time for school district mandated assessment in Nassau County was not readily available. The assessments used were locally developed and no manual for assessment administration was publicly available. The use of 45 minutes as administration time per subject area was used to determine the total amount of administration time in each grade and subject area. Nassau County mandated the use of beginning, middle, and end-of-year examinations in order to assess student performance in the areas of reading, mathematics, and science during the 2013-2014 school year.

Indian River County School District

Indian River County mandated the use of two assessments purchased from assessment publishers. The SAT-10 was used during the 2013-2014 school year to assess students in kindergarten through Grade 3 in the areas of reading, mathematics, English language arts, listening, and spelling. The total time customarily needed for administration of the SAT-10, according to the assessment publisher, was 318 minutes (Pearson, n.d.). The time necessary for SAT-10 administration was provided as a guideline for administration time. The SAT-10 is an untimed test, and the time needed was an approximation by the College Board of commonly expected administration time. The usual time needed for the reading assessment of the SAT-10 was 130 minutes. The usual time needed for administration of the mathematics assessment was 72 minutes. The usual time needed for the ELA and listening assessments were 40 minutes each. Lastly,

the spelling assessment of the SAT-10 was approximated to require 36 minutes of administration time. During the 2013-2014 school year, DIBELS was mandated by the school district for use in kindergarten and first grade to assess students' performance in reading. Administration time for DIBELS was 60 minutes, according to publicly available information disseminated by DIBELS (Good & Kaminsky, 2002).

In addition to purchased assessments, Indian River mandated locally developed benchmark and writing examinations. The school district mandated the use of assessments generated locally to measure student performance in the area of writing. The writing assessments were administered three times during the 2013-2014 school year. Benchmark examinations were mandated by the school district in mathematics, social studies, reading, and science. There were no publicly available administration time data for benchmark or writing assessments mandated during the 2013-2014 school year in Indian River County. Therefore, the assessments were assigned an administration time of 45 minutes.

Table 28

Administration Time (in Minutes) for Citrus County School District Assessments

		Grade Level												
Assessment	Subject	K	1	2	3	4	5	6	7	8	9	10	11	12
CBAT	Reading	0	0	0	45	45	45	45	45	45	45	45	45	45
	Math	0	0	0	45	45	45	45	45	45	45	45	45	45
	Science	0	0	0	45	45	45	45	45	45	45	45	45	45
CBAT	Reading	0	0	0	45	45	45	45	45	45	45	45	45	45
	Math	0	0	0	45	45	45	45	45	45	45	45	45	45
	Science	0	0	0	45	45	45	45	45	45	45	45	45	45
CBAT	Reading	0	0	0	45	45	45	45	45	45	45	45	45	45
	Math	0	0	0	45	45	45	45	45	45	45	45	45	45
	Science	0	0	0	45	45	45	45	45	45	45	45	45	45
Total (School District)		0	0	0	405	405	405	405	405	405	405	405	405	405
Total (State)		60	30	30	310	280	500	280	440	500	1120	1180	1440	1440
Overall		60	30	30	715	685	905	685	845	905	1525	1585	1845	1845

Table 29

Administration Time (in Minutes) for Nassau County School District Assessments

		Grade Level												
Assessment	Subject	K	1	2	3	4	5	6	7	8	9	10	11	12
Beginning of Year	Reading	0	0	0	45	45	45	45	45	45	45	45	45	45
	Math	0	0	0	45	45	45	45	45	45	45	45	45	45
	Science	0	0	0	45	45	45	45	45	45	45	45	45	45
Middle of Year	Reading	0	0	0	45	45	45	45	45	45	45	45	45	45
	Math	0	0	0	45	45	45	45	45	45	45	45	45	45
	Science	0	0	0	45	45	45	45	45	45	45	45	45	45
End of Year	Reading	0	0	0	45	45	45	45	45	45	45	45	45	45
	Math	0	0	0	45	45	45	45	45	45	45	45	45	45
	Science	0	0	0	45	45	45	45	45	45	45	45	45	45
Total (School District)		0	0	0	405	405	405	405	405	405	405	405	405	405
Total (State)		60	30	30	310	280	500	280	440	500	1120	1180	1440	1440
Overall		60	30	30	715	685	905	685	845	905	1525	1585	1845	1845

Table 30

Administration Time (in Minutes) for Indian River School District Assessments

		Grade Level												
Assessment	Subject	K	1	2	3	4	5	6	7	8	9	10	11	12
BMT 1	Reading	0	0	60	60	60	60	60	60	60	60	60	0	0
	Math	0	90	90	90	90	90	90	90	90	90	90	0	0
	Science	0	0	0	120	120	120	120	120	120	120	120	0	0
	Social Studies	0	0	0	0	0	0	0	60	0	0	0	60	0
BMT 2	Reading	0	60	60	60	60	60	60	60	60	60	60	0	0
	Math	90	90	90	90	90	90	90	90	90	90	90	0	0
	Science	0	0	0	120	120	120	120	120	120	120	120	0	0
	Social Studies	0	0	0	0	0	0	0	60	0	0	0	60	0
BMT 3	Reading	0	60	60	60	60	60	60	60	60	60	60	0	0
	Math	90	90	90	90	90	90	90	90	90	90	90	0	0
	Science	0	0	0	120	120	120	120	120	120	120	120	0	0
	Social Studies	0	0	0	0	0	0	0	60	0	0	0	60	0
BMT 4	Reading	0	0	0	60	0	0	0	0	0	0	0	0	0
Prompt 1	Writing	45	45	45	45	45	45	45	45	45	45	45	0	0
Prompt 2	Writing	45	45	45	45	45	45	45	45	45	45	45	0	0
DIBELS	Reading	60	60	0	0	0	0	0	0	0	0	0	0	0
SAT 10	Reading	130	130	130	130	0	0	0	0	0	0	0	0	0
	Math	72	72	72	72	0	0	0	0	0	0	0	0	0
	ELA	40	40	40	40	0	0	0	0	0	0	0	0	0
	Listening	40	40	40	40	0	0	0	0	0	0	0	0	0
	Spelling	36	36	36	36	0	0	0	0	0	0	0	0	0
Total (School District)		648	858	858	1278	900	900	900	1080	900	900	900	180	0
Total (State)		60	30	30	310	280	500	280	440	500	1120	1180	1440	1440
Overall		708	888	888	1588	1180	1400	1180	1520	1400	2020	2080	1620	1440

Large School District Assessment Administration Time

Tables 31, 32, and 33 display the administration times determined for school district and state mandated assessments used in the three large school districts in the sample (Broward, Duval, and Hillsborough County Public Schools) during the 2013-2014 school year. The tables provide a summary of the administration time necessary for each of the school district mandated assessments by grade level and subject area in the three large counties in the sample. The administration time was totaled at each grade level and the total administration time is displayed. The data contained in the tables were collected using publicly available test publisher information and the 45 minute assumed administration time.

Broward County School District

The School District of Broward County mandated two assessments not developed locally. The CogAT and SAT-10 were mandated for administration to students in Grades 2 and 3 respectively. The SAT-10 was used during the 2013-2014 school year to assess students in Grade 3 in the areas of reading, mathematics, English language arts, listening, and spelling. The total time customarily needed for administration of the SAT-10, according to the assessment publisher, was 318 minutes (Pearson, n.d.). The time necessary for SAT-10 administration was provided as a guideline for administration time. The SAT-10 is an untimed test, and the time needed was an approximation by the College Board of commonly expected administration time. The usual time needed for the reading assessment of the SAT-10 was 130 minutes. The usual time needed for administration of

the mathematics assessment was 72 minutes. The usual time needed for the ELA and listening assessments were 40 minutes each. Lastly, the spelling assessment of the SAT-10 was approximated to require 36 minutes of administration time.

The CogAT was used during the 2013-2014 school year to screen second-grade students for possible qualification for gifted services. Three areas of skill were assessed using the CogAT. The CogAT measured students' verbal, non-verbal, and quantitative skills. Each skill required 50 minutes of administration time totaling 150 minutes (Loughman, 2012).

The remainder of school district mandated assessments were locally developed. The locally created 2013-2014 Benchmark Assessment Test (BAT) manual was publicly available and specified an administration time of 140 minutes (Broward County Public Schools, 2013). No publicly available information regarding administration time of other locally developed assessments was discovered. End-of-semester examinations, writing assessments, and primary reading assessments were assigned administration time values of 45 minutes according to the methodology outlined for data collection.

Duval County School District

The School District of Duval County mandated five assessments not developed locally. The IOWA-E, DAR, I-Ready, Mathematica, and LAS LINKS assessments were required during the 2013-2014 school year.

The IOWA-E was used in Grades 1-11 to assess student performance in ELA, mathematics, reading, vocabulary, word analysis, and listening. The total time needed

for administration of the IOWA-E was 163 minutes according to public documentation available from IOWA-E. Administration time for subject areas assessed using the IOWA-E ranged from 20 minutes for word analysis and vocabulary to 43 minutes for reading (Seton Testing Services, n.d.).

DAR assessment was used as needed in Grades 1-12. Each administration of the DAR required 40 minutes per student according to the publicly available information disseminated by the assessment publisher (Roswell, Chall, Curtis, & Kearns, 2006). I-Ready was used to support classroom instruction and the school district mandated assessments required 60 minutes per subject to administer (Curriculum Associates, 2012). LAS Links was composed of speaking, listening, reading, and writing. Administration time for speaking was 70 minutes, listening 10 minutes, reading 15minutes, and writing 10 minutes. The total time required for LAS Links administration was 105 minutes (Olvera, 2011).

In addition to school district mandated vendor assessments, locally created assessments were required as well. The majority of assessment administration mandated by the School District of Duval County was the locally developed Curriculum Guide Assessment (CGA) and Collaborative Assessment System for Teachers (CAST) assessment. No publicly available information was discovered for these assessments. Therefore, each administration of the CGA and CAST was assigned a time value of 45 minutes. In addition to the CGAs and CASTs, school district developed assessments included mid-term examinations, final examinations, and timed assessments in writing during the 2013-2014 school year.

Hillsborough County School District

The School District of Hillsborough County mandated four assessments not developed locally. The SAT-10 was used during the 2013-2014 school year in Hillsborough County to assess students in Grades 1-10 in the areas of reading, mathematics, English language arts, listening, and spelling. The total time customarily needed for administration of the SAT-10, according to the assessment publisher, was 318 minutes (Pearson, n.d.). The time necessary for SAT-10 administration was provided as a guideline for administration time. The SAT-10 is an untimed test, and the time needed was an approximation by the College Board of commonly expected administration time. The usual time needed for the reading assessment of the SAT-10 was 130 minutes. The usual time needed for administration of the mathematics assessment was 72 minutes. The usual time needed for the ELA and listening assessments were 40 minutes each. Lastly, the spelling assessment of the SAT-10 was approximated to require 36 minutes of administration time.

The school district mandated the administration of ReadiStep assessments in reading, mathematics, and writing to students in Grade 7. Each of the subjects assessed using the ReadiStep required 40 minutes of administration time (Curriculum Associates, 2012). FitnessGram was used to assess students' physical fitness. The publicly available manual stated the assessment could be completed during a standard 45- minute physical education session (FitnessGram, 1999)

The Kindergarten Readiness Test (KRT) was mandated by the school district to be administered twice to students in kindergarten. The KRT was composed of six

subtests. According to the publisher of the KRT, each subtest required approximately 30 minutes. The total time for administration of the KRT was approximately 360 minutes (Scholastic, n.d.).

The remainder of school district mandated assessments administered during the 2013-2014 school year were locally developed. Students in Grades 6-8 were required to participate in an FCAT 2.0 practice test. The administration manual was publicly available and specified that mathematics was the only subject assessed, and the administration time was identified as 60 minutes (School District of Hillsborough County, 2013).

No publicly available information regarding administration time was discovered for the remaining locally developed, school district mandated assessments. Therefore, each assessment administration was assigned a value of 45 minutes.

School district developed end-of-semester examinations included a mid-term examination and a final examination. The assessments assigned administration time values of 45 minutes included fall and spring pretests, school district writing, and formative assessments. Additionally, school district mandated assessments in art, music, physical education, mathematics, science, reading, and dance were administered during the 2013-2014 school year and assigned an administration time value of 45 minutes.

Table 31

Administration Time (in Minutes) for Broward County School District Assessments

		Grade Level												
Assessment	Subject	K	1	2	3	4	5	6	7	8	9	10	11	12
District Writing Prompt	Writing	0	0	0	0	45	0	0	0	45	0	45	0	0
	Writing	0	0	0	0	45	0	0	0	45	0	45	0	0
BAT 1	Reading	0	0	0	140	140	140	140	140	140	140	140	140	140
	Math	0	0	0	140	140	140	140	140	140	140	140	140	140
	Science	0	0	0	140	140	140	140	140	140	140	140	140	140
BAT 2	Reading	0	0	0	140	140	140	140	140	140	140	140	140	140
	Math	0	0	0	140	140	140	140	140	140	140	140	140	140
	Science	0	0	0	140	140	140	140	140	140	140	140	140	140
	Social Studies	0	0	0	0	0	0	0	140	0	0	0	140	0
Semester Exams (Mid-Term)	Reading	0	0	0	0	0	0	0	0	0	45	45	45	45
	Math	0	0	0	0	0	0	0	0	0	45	45	45	45
	Science	0	0	0	0	0	0	0	0	0	45	45	45	45
	Other	0	0	0	0	0	0	0	0	0	45	45	45	45
	Other	0	0	0	0	0	0	0	0	0	45	45	45	45
	Other	0	0	0	0	0	0	0	0	0	45	45	45	45
Semester Exams (Final)	Reading	0	0	0	0	0	0	0	0	0	45	45	45	45
	Math	0	0	0	0	0	0	0	0	0	45	45	45	45
	Science	0	0	0	0	0	0	0	0	0	45	45	45	45
	Other	0	0	0	0	0	0	0	0	0	45	45	45	45
	Other	0	0	0	0	0	0	0	0	0	45	45	45	45
	Other	0	0	0	0	0	0	0	0	0	45	45	45	45
Primary Reading Assessment (Mid-Year)	Reading	0	45	45	0	0	0	0	0	0	0	0	0	0

		Grade Level												
Assessment	Subject	K	1	2	3	4	5	6	7	8	9	10	11	12
Primary Reading Assessment (End of Year)	Reading	0	45	45	0	0	0	0	0	0	0	0	0	0
CogAT	Verbal	0	0	50	0	0	0	0	0	0	0	0	0	0
	Quantitative	0	0	50	0	0	0	0	0	0	0	0	0	0
	Non-verbal	0	0	50	0	0	0	0	0	0	0	0	0	0
SAT-10	Reading	0	0	0	130	0	0	0	0	0	0	0	0	0
	Math	0	0	0	72	0	0	0	0	0	0	0	0	0
	ELA	0	0	0	40	0	0	0	0	0	0	0	0	0
	Listening	0	0	0	40	0	0	0	0	0	0	0	0	0
	Spelling	0	0	0	36	0	0	0	0	0	0	0	0	0
Total (School District)		0	90	240	1158	930	840	840	980	930	1380	1470	1520	1380
Total (State)		60	30	30	310	280	500	280	440	500	1120	1180	1440	1440
Overall		60	120	270	1468	1210	1340	1120	1420	1430	2500	2650	2960	2820

Table 32

Administration Time (in Minutes) for Duval County School District Assessments

		Grade Level												
Assessment	Subject	K	1	2	3	4	5	6	7	8	9	10	11	12
CGA (Baseline)	ELA	45	45	45	45	45	45	45	45	45	45	45	45	45
	Math	45	45	45	45	45	45	45	45	45	45	45	45	45
	Science	0	0	0	0	45	45	45	45	45	45	45	45	45
	Music	0	0	0	0	0	45	0	0	0	0	0	0	0
	Art	0	0	0	0	0	45	0	0	0	0	0	0	0
	Social Studies	0	0	0	0	0	0	45	45	45	45	45	45	45
	Transition Classes	0	0	0	0	0	0	45	45	45	45	45	45	45
	World Languages	0	0	0	0	0	0	45	45	45	45	45	45	45
	PE	0	0	45	0	0	45	0	0	0	0	0	0	0
CGA 1	ELA	45	45	45	45	45	45	45	45	45	45	45	45	45
	Math	45	45	45	45	45	45	45	45	45	45	45	45	45
	Science	0	0	0	0	45	45	45	45	45	45	45	45	45
	Music	0	0	0	0	0	45	0	0	0	0	0	0	0
	Art	0	0	0	0	0	45	0	0	0	0	0	0	0
	Social Studies	0	0	0	0	0	0	45	45	45	45	45	45	45
	Transition Classes	0	0	0	0	0	0	45	45	45	45	45	45	45
	World Languages	0	0	0	0	0	0	45	45	45	45	45	45	45
	PE	0	0	45	0	0	45	0	0	0	0	0	0	0
CGA 2	ELA	45	45	45	45	45	45	45	45	45	45	45	45	45
	Math	45	45	45	45	45	45	45	45	45	45	45	45	45
	Science	0	0	0	0	45	45	45	45	45	45	45	45	45
	Music	0	0	0	0	0	45	0	0	0	0	0	0	0
	Art	0	0	0	0	0	45	0	0	0	0	0	0	0

		Grade Level												
Assessment	Subject	K	1	2	3	4	5	6	7	8	9	10	11	12
	Social Studies	0	0	0	0	0	0	45	45	45	45	45	45	45
	Transition Classes	0	0	0	0	0	0	45	45	45	45	45	45	45
	World Languages	0	0	0	0	0	0	45	45	45	45	45	45	45
	PE	0	0	45	0	0	45	0	0	0	0	0	0	0
CGA 3	ELA	45	45	45	45	45	45	45	45	45	45	45	45	45
	Math	45	45	45	45	45	45	45	45	45	45	45	45	45
	Science	0	0	0	0	45	45	45	45	45	45	45	45	45
	Music	0	0	0	0	0	45	0	0	0	0	0	0	0
	Art	0	0	0	0	0	45	0	0	0	0	0	0	0
	Social Studies	0	0	0	0	0	0	45	45	45	45	45	45	45
	Transition Classes	0	0	0	0	0	0	45	45	45	45	45	45	45
	World Languages	0	0	0	0	0	0	45	45	45	45	45	45	45
	PE	0	0	45	0	0	45	0	0	0	0	0	0	0
CGA (Post)	ELA	45	45	45	45	45	45	45	45	45	45	45	45	45
	Math	45	45	45	45	45	45	45	45	45	45	45	45	45
	Science	0	0	0	0	45	45	45	45	45	45	45	45	45
	Music	0	0	0	0	0	45	0	0	0	0	0	0	0
	Art	0	0	0	0	0	45	0	0	0	0	0	0	0
	Social Studies	0	0	0	0	0	0	45	45	45	45	45	45	45
	Transition Classes	0	0	0	0	0	0	45	45	45	45	45	45	45
	World Languages	0	0	0	0	0	0	45	45	45	45	45	45	45
	PE	0	0	45	0	0	45	0	0	0	0	0	0	0
Timed Assessment	Writing	0	0	0	0	45	0	0	0	45	0	45	0	0
	Writing	0	0	0	0	45	0	0	45	45	45	45	0	0
IOWA-E	ELA	0	25	25	25	25	25	25	25	25	25	25	25	25
	Mathematics	0	25	25	25	25	25	25	25	25	25	25	25	0

		Grade Level												
Assessment	Subject	K	1	2	3	4	5	6	7	8	9	10	11	12
	Vocabulary	0	20	20	20	20	20	20	20	20	20	20	20	0
	Reading	0	43	43	43	43	43	43	43	43	43	43	43	0
	Word Analysis	0	20	20	20	20	20	20	20	20	20	20	20	0
	Listening	0	30	30	30	30	30	30	30	30	30	30	30	0
IOWA-E	ELA	0	25	25	25	25	25	25	25	25	25	25	25	0
	Mathematics	0	25	25	25	25	25	25	25	25	25	25	25	0
	Vocabulary	0	20	20	20	20	20	20	20	20	20	20	20	0
	Reading	0	43	43	43	43	43	43	43	43	43	43	43	0
	Word Analysis	0	20	20	20	20	20	20	20	20	20	20	20	0
	Listening	0	30	30	30	30	30	30	30	30	30	30	30	0
DAR	Reading	0	40	40	40	40	40	40	40	40	40	40	0	0
CAST 1	Other	45	45	45	45	45	45	45	45	45	45	45	45	45
CAST 2	Other	0	0	0	0	0	0	45	45	45	45	45	45	45
Mathmatica	Math	0	0	0	0	45	0	0	0	0	0	0	0	0
I-Ready	Math	45	45	45	45	45	45	45	45	45	45	0	0	0
I-Ready	Math	45	45	45	45	45	45	45	45	45	45	0	0	0
LAS LINKS	Speaking*	0	0	0	75	75	75	0	0	0	0	0	0	0
	Listening	0	0	0	10	10	10	0	0	0	0	0	0	0
	Reading	0	0	0	15	15	15	0	0	0	0	0	0	0
	Writing	0	0	0	10	10	10	0	0	0	0	0	0	0
District EOC (Mid-Term)	Other	0	0	0	0	0	0	45	45	45	45	45	45	45
District EOC (Final)	Other	0	0	0	0	0	0	45	45	45	45	45	45	45
Total (School District)		585	951	1176	1061	1421	1961	1986	2031	2076	2031	1986	1856	1555
Total (State)		60	30	30	310	280	500	280	440	500	1120	1180	1440	1440
Overall		645	981	1206	1371	1701	2461	2266	2471	2576	3151	3166	3296	2995

Table 33

Administration Time (in Minutes) for Hillsborough County School District Assessments

		Grade Level												
Assessment	Subject	K	1	2	3	4	5	6	7	8	9	10	11	12
Formative A	Math	0	0	0	45	45	45	45	45	45	45	45	0	0
	Science	0	0	0	0	0	45	0	0	45	0	45	0	0
	Writing	0	0	0	0	0	0	45	45	45	45	45	0	0
Formative B	Math	0	0	0	45	45	45	45	45	45	45	45	0	0
	Science	0	0	0	0	0	45	0	0	45	0	45	0	0
	Writing	0	0	0	0	0	0	45	45	45	45	45	0	0
Formative C	Math	0	0	0	0	0	0	0	0	0	45	45	0	0
FitnessGram (Pretest)	PE	0	0	45	0	0	45	45	45	45	0	0	0	0
FitnessGram (Posttest)	PE	0	0	45	0	0	45	45	45	45	0	0	0	0
KRT (pretest)	Other	45	0	0	0	0	0	0	0	0	0	0	0	0
KRT (posttest)	Other	45	0	0	0	0	0	0	0	0	0	0	0	0
Fall Pretest	Art	0	0	0	0	0	0	0	45	45	45	45	45	45
	World Language	0	0	0	0	0	0	0	45	45	45	45	45	45
	ROTC	0	0	0	0	0	0	0	45	45	45	45	45	45
	Music	0	0	0	0	0	0	0	45	45	45	45	45	45
	CTE	0	0	0	0	0	0	0	45	45	45	45	45	45
	ELA	0	0	0	0	0	0	0	45	45	45	45	45	45
	Drivers Ed	0	0	0	0	0	0	0	45	45	45	45	45	45
Spring Pretest	Art	0	0	0	0	0	0	0	45	45	45	45	45	45
	World Language	0	0	0	0	0	0	0	45	45	45	45	45	45
	ROTC	0	0	0	0	0	0	0	45	45	45	45	45	45
	Music	0	0	0	0	0	0	0	45	45	45	45	45	45
	CTE	0	0	0	0	0	0	0	45	45	45	45	45	45

		Grade Level												
Assessment	Subject	K	1	2	3	4	5	6	7	8	9	10	11	12
	ELA	0	0	0	0	0	0	0	45	45	45	45	45	45
	Drivers Ed	0	0	0	0	0	0	0	45	45	45	45	45	45
Readistep	Reading	0	0	0	0	0	0	0	40	0	0	0	0	0
	Math	0	0	0	0	0	0	0	40	0	0	0	0	0
	Writing	0	0	0	0	0	0	0	40	0	0	0	0	0
District Exam	Writing	0	0	0	0	0	0	0	0	0	0	0	45	45
	Writing	0	0	0	0	0	0	0	0	0	0	0	45	45
	Writing	0	0	0	0	0	0	0	0	0	0	0	0	45
Midterm Exam	Science	0	0	0	0	0	0	45	45	45	45	45	45	45
	Math	0	0	0	0	0	0	45	45	45	45	45	45	45
	ELA	0	0	0	0	0	0	45	45	45	45	45	45	45
	Social Studies	0	0	0	0	0	0	45	45	45	45	45	45	45
	Other	0	0	0	0	0	0	45	45	45	45	45	45	45
	Other	0	0	0	0	0	0	45	45	45	45	45	45	45
Final Exam	Science	0	0	0	0	0	0	45	45	45	45	45	45	45
	Math	0	0	0	0	0	0	45	45	45	45	45	45	45
	ELA	0	0	0	0	0	0	45	45	45	45	45	45	45
	Social Studies	0	0	0	0	0	0	45	45	45	45	45	45	45
	Other	0	0	0	0	0	0	45	45	45	45	45	45	45
	Other	0	0	0	0	0	0	45	45	45	45	45	45	45
FCAT 2.0 Practice Test	Math	0	0	0	0	0	0	60	60	60	0	0	0	0
SAT-10	Reading	0	130	130	130	130	130	130	130	130	130	130	0	0
	Math	0	72	72	72	72	72	72	72	72	72	72	0	0
	ELA	0	40	40	40	40	40	40	40	40	40	40	0	0
	Listening	0	40	40	40	40	40	40	40	40	40	40	0	0
	Spelling	0	36	36	36	36	36	36	36	36	36	36	0	0

		Grade Level												
Assessment	Subject	K	1	2	3	4	5	6	7	8	9	10	11	12
District Assessment	Art	0	45	45	45	45	45	0	0	0	0	0	0	0
	Music	0	45	45	45	45	45	0	0	0	0	0	0	0
	PE	0	45	45	45	45	45	0	0	0	0	0	0	0
	Dance	0	45	45	45	45	45	0	0	0	0	0	0	0
District EOY	Math	45	0	0	0	0	0	0	0	0	0	0	0	0
	Science	45	45	45	45	45	0	0	0	0	0	0	0	0
	Writing	0	0	0	45	0	0	0	0	0	0	0	0	45
Total (School District)		180	543	633	678	633	768	1188	1938	1908	1713	1803	1260	1350
Total (State)		60	30	30	310	280	500	280	440	500	1120	1180	1440	1440
Overall		240	573	663	988	913	1268	1468	2378	2408	2833	2983	2700	2790

Summary

Examination of state and district-mandated assessment administration time revealed that greatest amounts of assessment administration time were in Grades 10-12. The finding was due to the increase in high-stakes assessment as students neared graduation. If students did not demonstrate levels in accordance with graduation requirements, the were required to retake assessments. This led to a snowball effect in the higher grades. Those students that performed worst were the students that were met with the greatest amounts of assessment administration time.

Large school districts required greater amounts of assessment administration time across all grade levels when compared to medium and small school districts. This finding may be a result of greater oversight necessary within larger organizations. Findings may also be a reflection of greater levels of financial support and freedom within large school districts. Large school districts may have greater access to alternative funding sources due to relatively greater diversity among the student population within large school districts relative to diversity among student populations represented in small and medium school districts.

Data Analysis for Research Question 4

What, if any, relationship exists between district size and minutes of allocated assessment time in Florida's school districts?

The independent variable data, school district size, was determined during the sampling phase of the study. The 67 Florida School Districts defined by Florida Statute 1001.30 were ranked in order of size based on student enrollment as reflected in most recent Florida Education Finance Program (FEFP) documents retrieved from the Florida Department of Education Online Report Archive. The researcher's employer was not included in the selection process leaving 66 Florida school districts. The school districts were ranked in order from smallest to largest according to student enrollment. The smallest 10 school districts based on student enrollment constituted small school districts. The 10 school districts with the highest student enrollment counts were considered large school districts. The median of all the school districts was calculated and the five school districts above and below the median were considered medium size school districts. These parameters were established in order to provide the greatest degree of variance among school district size to allow for a more distinct set of data for comparison.

Once the three strata of 10 school districts were developed, school districts were assigned random numbers using the random number generator available in a widely available statistics software package. A sample of three representative school districts were selected from each of the strata by assignment of random numbers from 1-100 and selection of the three lowest random numbers for each of the low, medium, and large population sub-divisions. A total of nine school districts were used in the study and included three small, three medium, and three large school districts.

The dependent variable, allocated assessment time, was measured using the data collected in order to respond to Research Questions 2 and 3. A combination of data was

collected from the sources used to respond to Research Question 1. These included Florida Statutes, school district assessment calendars, and school district assessment coordinators. When available, published administration manuals were used and contact was made with the assessment publisher in order to determine the time required for proper administration of the assessment.

The results of this portion of the data analysis are displayed using two bar graphs, and one scatterplot. As reflected in Figure 1, a bar graph was created using school district size data. The school district size data were then categorized into the larger strata of small, medium, and large. These data are displayed in Figure 2 with small, medium, and large categories on the horizontal axis and allocated assessment time on the vertical axis. The display allowed for comparison between the independent and dependent variable using categorical data.

District Student Enrollment versus AAT

A Pearson *r* was calculated to examine the relationship between school district size and AAT and it was found that $r(7) = .53$, $p > .05$. It was determined that no significant relationship between school district size and AAT existed. Data were displayed using bar graphs in Figures 1 and 2. Figure 1 used student enrollment for each school district along the x-axis. Reading the y-axis provides AAT values in minutes for each school district.

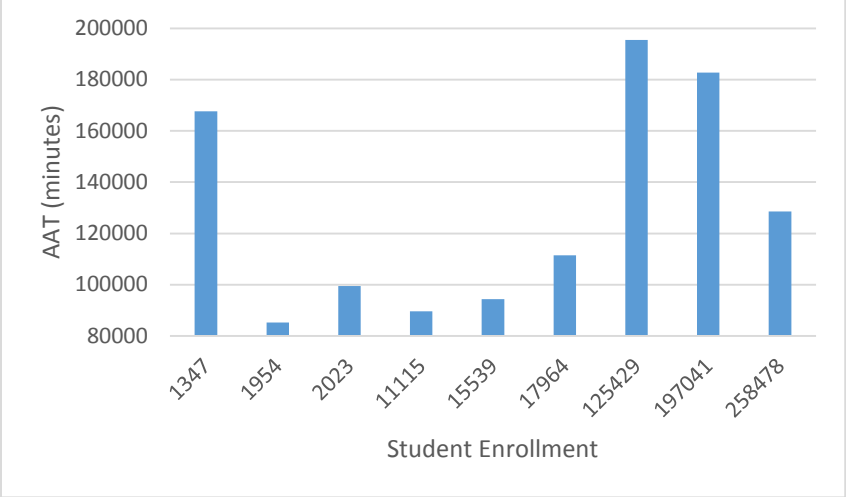


Figure 1. School District Enrollment and Allocated Assessment Time

Figure 2 used the mean student enrollment for each strata of school district. Reading the y-axis provides the mean AAT for each strata of school district size.

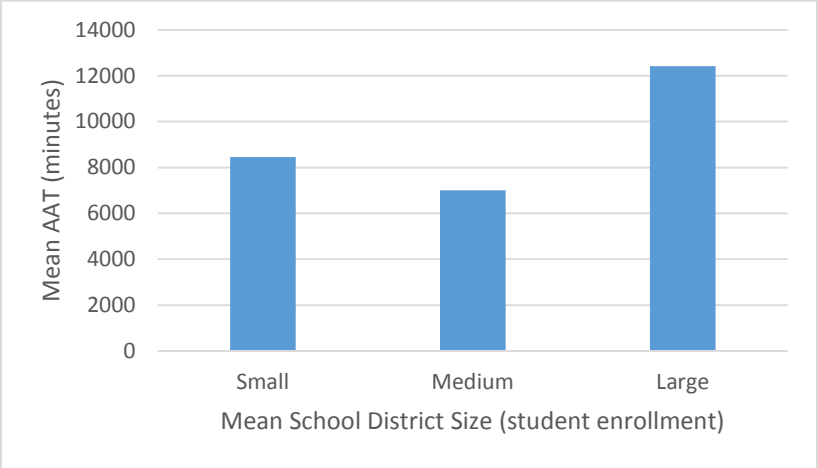


Figure 2. Mean Allocated Assessment Time vs. Mean School District Size

To respond to Research Question 4 to determine if there was a relationship between district size and minutes of allocated assessment time in Florida's school districts, a one-way analysis of variance (ANOVA) was performed. ANOVA was used in order to determine if there was a statistical significant difference between district size and allocated assessment time. Data used in the ANOVA were school district size. Small, medium, and large were used as treatments. Each treatment was comprised of each of the grade level AAT amounts of the school districts assigned to the treatment.

The ANOVA used each school district's grade levels as reported using state-mandated assessments. It included disaggregated data related to Grades K-12 by grade level which led to 117 data points relating AAT to school district size. Table 34 provides the descriptive statistics related to the samples used in the ANOVA. Each group contained 39 data points representative of each of three school districts per strata times the number of grade levels K - 12. Table 35 contains the results of the one-way analysis of variance (ANOVA) of school district size and minutes of allocated assessment time, $F(2, 114) = 8.87$, $p < .05$, showing there was a significant difference between allocated assessment time and school district size.

Table 34

Descriptive Statistics of School District Allocated Assessment Time (AAT) by School District

Groups	Count	Mean AAT	Standard Deviation
Small	39	4655	2593
Medium	39	6134	2947
Large	39	15676	3720

Table 35

Analysis of Variance (ANOVA): School District Size by Allocated Assessment Time (ATT)

Source of Variation	*SS*	*df*	*MS*	*F*	*F crit*
Between Groups	6.13	2	3.06	8.87	3.08
Within Groups	3.94	114	34538945		
Total	4.55	116			

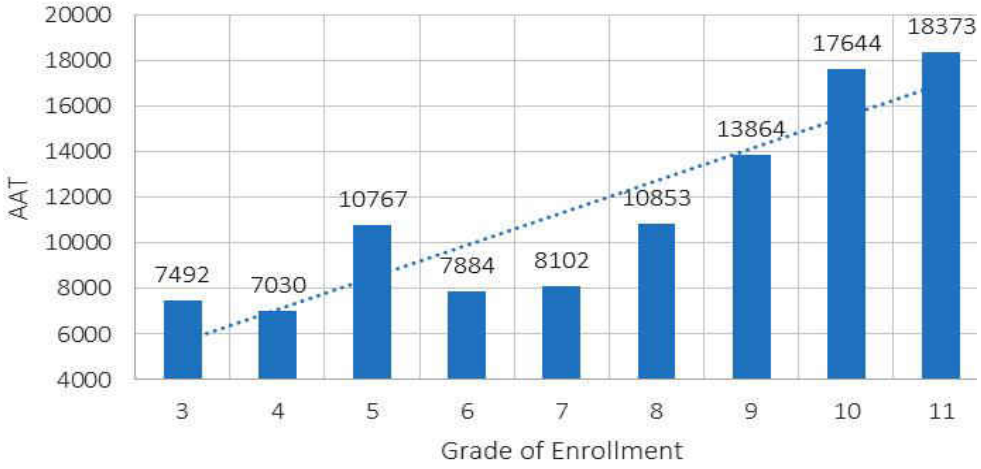
In order to determine between which groups the difference was significant, A Tukey Honest Significantly Difference (Tukey HSD) was used. It was found that there was no significant difference between small and medium school districts. There was a significant difference between both small and large size school districts, HSD = 5.02, $\alpha < .01$, as well as medium and large school districts, HSD = 6.47, $\alpha < .01$. Large school districts had significantly greater number of minutes allocated for assessment. The results of the Tukey HSD are shown in Table 36.

Table 36

Tukey Honest Significant Difference (HSD) Results for District Size

District Size	Tukey HSD Q statistic	Tukey HSD Inference
Small vs. Medium	1.44	insignificant
Small vs. Large	5.03	** $p < 0.01$
Medium vs. Large	6.47	** $p < 0.01$

A bar graph (Figure 3) was created relating the allocated assessment time by assessed grade level. The scatterplot and regression allowed for calculation of Pearson *r* to determine what relationship, if any, existed between grade of enrollment and allocated assessment time.



Note. $R^2 = 7837$

Figure 3. Grade Level vs. Allocated Assessment Time (AAT)

Summary

Findings related to Research Question 4 did not demonstrate a significant relationship between school district size and AAT. There were significant differences in the amount of AAT and school district size between small and large as well as medium and large school districts. No significant difference was found between small and medium sized school districts. Findings in this study showed that a significant difference in allocated assessment time existed between small and large, as well as medium and large school districts.

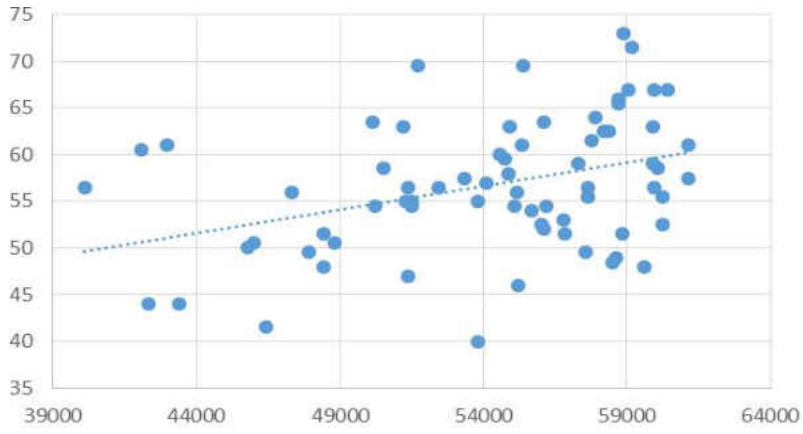
Data Analysis for Research Question 5

What, if any, relationship exists between amount of allocated instructional time and student achievement in Florida's school districts?

The independent variable, allocated instructional time (AIT), was measured through determination of the difference between allocated time and allocated assessment time. The dependent variable, student achievement, was measured using FCAT 2.0 data. The data from FCAT 2.0 reading, mathematics, writing, and science assessments were used to measure school district level achievement. FCAT 2.0 developmental scale scores, scale scores, and achievement levels were used in the analysis of the data. Student achievement was measured using the Florida Department of Education's Interactive FCAT 2.0 database (FDOE, 2015). School district data related to FCAT Scale Score, Developmental Scale Score, and students meeting grade level requirements were collected for reading, mathematics, science, and writing, as appropriate. Student

achievement and allocated instructional time (AIT) overall data are displayed in Figures 4 and 5.

As shown in Figure 4, overall data related to student achievement and AIT had an $r^2 = 0.14$. The data used were related to grade levels assessed by state-mandated assessments. Each FCAT 2.0 administered in Grades 3-10 were used if results were reported in percentage of students meeting grade level requirements. A Pearson *r* was calculated, and it was determined that there was a significant relationship between AIT and student achievement, $r(70) = +0.37$, $p < .01$. The Pearson *r* calculated for overall FCAT 2.0 data and AIT demonstrated a significant positive correlation between AIT and percentage of students scoring 3 or above for science, reading, and mathematics, 3.5 or above in writing. Greater amounts of AIT were related to higher levels of student achievement.

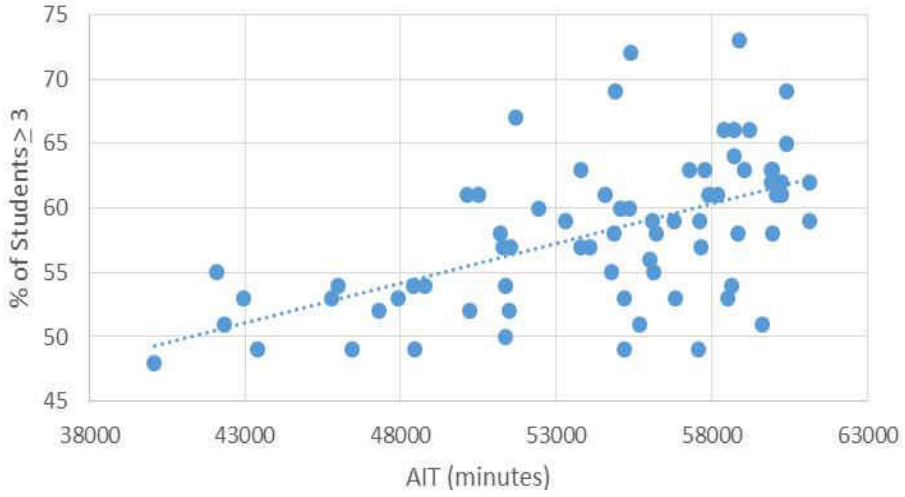


Note. $r^2 = 0.14$

Figure 4. Overall Student Achievement and Allocated Instructional Time (AIT)

An examination of overall allocated instructional time was used to determine what relationship, if any, existed between number of allocated instructional minutes and student achievement as measured by FCAT 2.0. Each of the data were separated by FCAT 2.0 subject area of assessment, and a scatterplot was developed to visualize the possible relationship between the two variables. The following figures display the resulting scatterplots for each subject area. Included with the figures are the calculation results of r^2 and a short summary of the relationship strength between the two variables.

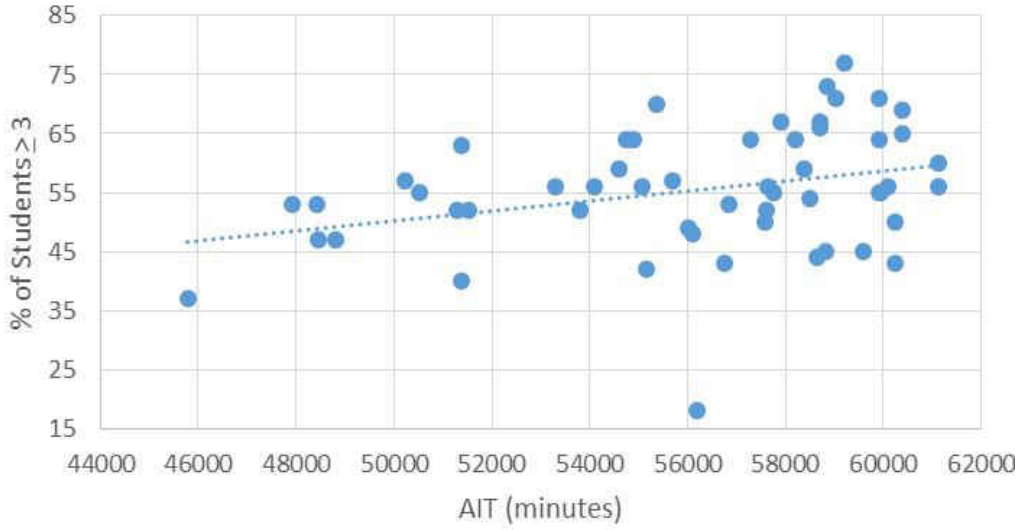
As shown in Figure 5, overall data related to student achievement in reading and AIT had an $r^2 = 0.31$. Reading achievement was measured using the available FCAT 2.0 Reading results for grades 3 through 10 respective to each school district in the sample. A Pearson *r* was calculated. The Pearson *r* for reading data and AIT represented a large positive correlation between AIT and percentage of students scoring 3 or above, $r(70) = +.56$, $p < .01$. Greater amounts of AIT were related to greater levels of student achievement in reading as measured by FCAT 2.0.



Note. $r^2 = 0.31$

Figure 5. Allocated Instructional Time (AIT) vs. % ≥ 3 (Reading)

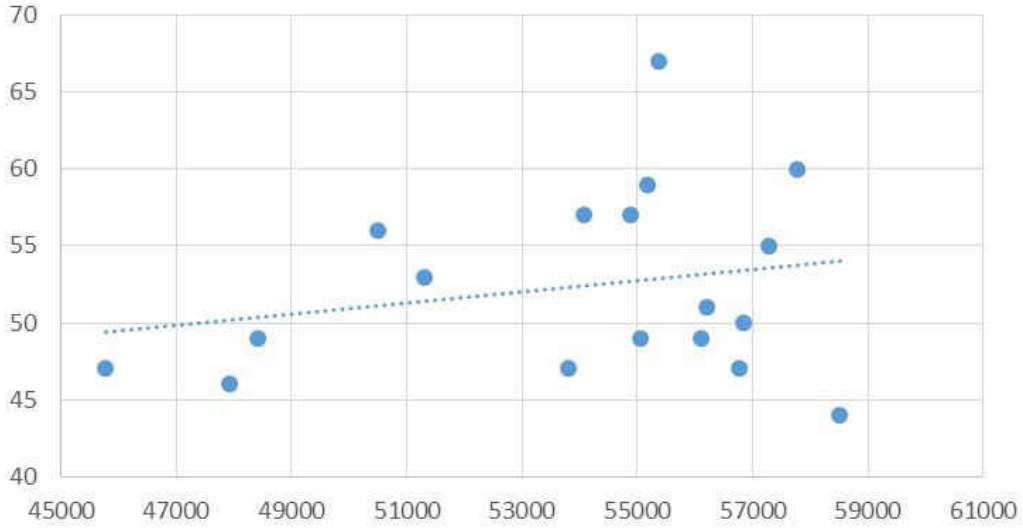
As shown in Figure 6, overall data related to student achievement in mathematics and AIT had an $r^2 = 0.10$. Mathematics achievement was measured using the available FCAT 2.0 Mathematics results for Grades 3 through 8 respective to each school district in the sample. A Pearson *r* was calculated to determine the possible relationship between AIT and achievement in mathematics. The Pearson *r* calculated for mathematics data and AIT represented a moderate positive correlation between AIT and percentage of students scoring 3 or above, $r(52) = +.32$, $p < .05$. Greater amounts of AIT were related to greater levels of student achievement in mathematics as measured by FCAT 2.0.



Note. $r^2 = 0.10$

Figure 6. Allocated Instructional Time (AIT) vs. % ≥ 3 (Math)

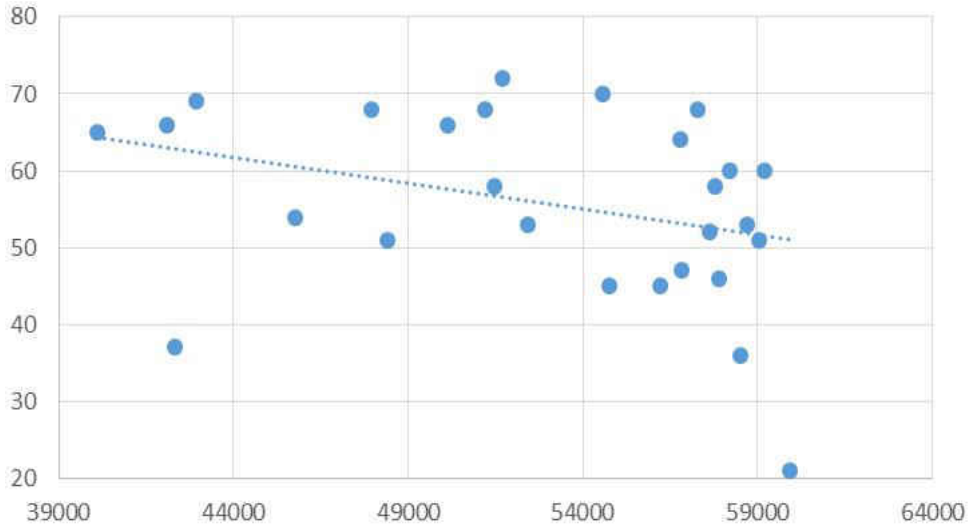
As shown in Figure 7, data related to student achievement in science and AIT had an $r^2 = 0.05$. Science achievement was measured using the available FCAT 2.0 Science results for grades 5 and 8 respective to each school district in the sample. A Pearson *r* was calculated and was found to be $r(16) = .23$, $p > .05$. The Pearson *r* calculated for science data and AIT represented no significant correlation between AIT and percentage of students scoring 3 or above. Greater amounts of AIT were not related to greater levels of student achievement in science as measured by FCAT 2.0.



Note. $r^2 = 0.05$

Figure 7. Overall: Allocated Instructional Time (AIT) vs. % ≥ 3 (Science)

As shown in Figure 8, overall data related to student achievement in writing and AIT had an $r^2 = 0.11$. Writing achievement was measured using the available FCAT 2.0 Writing results for Grades 4, 8, and 10 respective to each school district in the sample. A Pearson *r* was calculated. The Pearson *r* calculated for writing data and AIT represent no significant correlation between AIT and percentage of students scoring 3.5 or above, $r(25) = .33$, $p > .05$. The amount of AIT was not related to levels of student achievement in writing as measured by FCAT 2.0.



Note. $r^2 = 0.11$

Figure 8. Overall: Allocated Instructional Time (AIT) vs. % ≥ 3.5 (Writing)

As shown in Figure 9, overall data related to student achievement in civics and AIT had an $r^2 = 0.11$. Civics achievement was measured using the available Civics EOC results for grade 7 respective to each school district in the sample. Achievement levels were reported as scale scores by the State of Florida. The scale scores were used to determine the possible relationship between AIT and Civics achievement. A Pearson *r* was calculated. The Pearson *r* calculated for Civics EOC data and AIT demonstrated no significant correlation between AIT and student achievement as measured by scale score, $r(7) = .56$, $p > .05$.

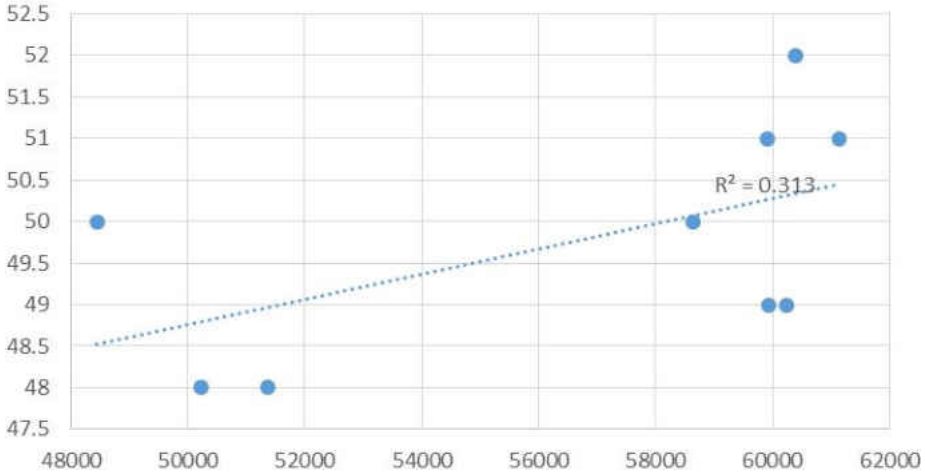


Figure 9. Allocated Instructional Time and End-of-course Examination (Civics)

As shown in Figure 10, overall data related to student achievement and AIT had an $r^2 = 0.04$. Algebra achievement was measured using the available Algebra EOC results for Grade 9 respective to each school district in the sample. A Pearson *r* was calculated. The Pearson *r* calculated for Algebra end-of-course (EOC) data and AIT represented no significant correlation between AIT and percentage of students scoring 3 or above, $r(7) = .19$, $p > .05$.

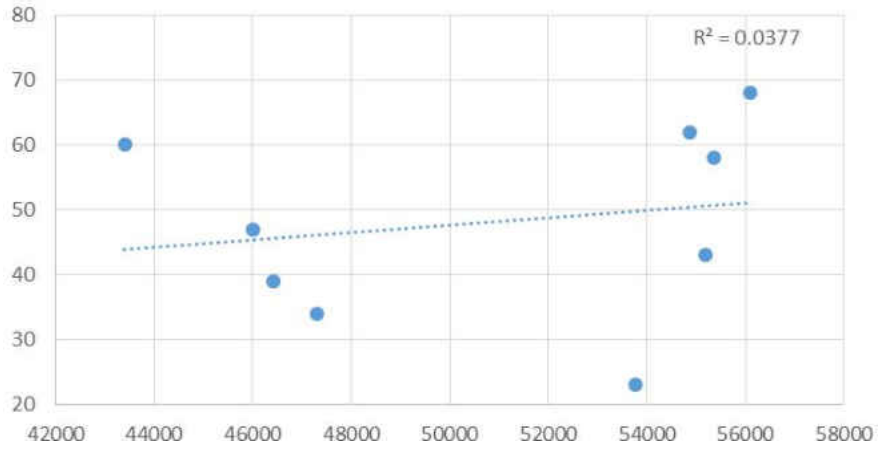


Figure 10. Allocated Instructional Time and End-of-course Examination (Algebra)

As shown in Figure 11, overall data related to student achievement in Biology and AIT had an $r^2 = 0.35$. Biology achievement was measured using the available Biology EOC results for Grade 10 respective to each school district in the sample. The Pearson *r* calculated for Biology EOC data and AIT represented no significant correlation between AIT and percentage of students scoring 3 or above $r(7) = .59$, $p > .05$. It must be noted that although the relationship was not statistically significant, the Biology results represented the strongest of the relationships between AIT and student achievement. The small sample size, $n = 9$, affected the measurement of statistical significance.

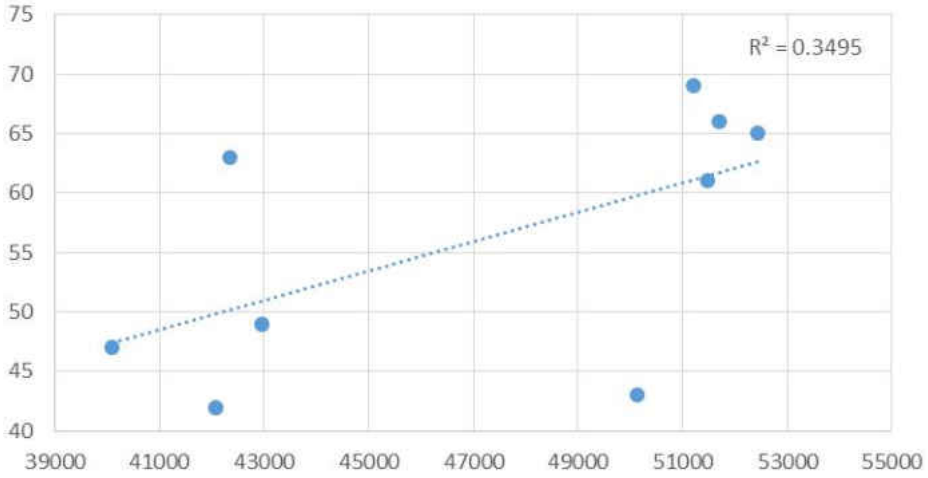


Figure 11. Allocated Instructional Time and End-of-course Examination (Biology)

As shown in Figure 12, overall data related to student achievement in Geometry and AIT had an $r^2 = 0.24$. Geometry achievement was measured using the available Geometry EOC results for Grade 10 respective to each school district in the sample. A The Pearson *r* calculated for Geometry EOC data and AIT represented no significant correlation between AIT and percentage of students scoring 3 or above $r(7) = .49$, $p > .05$.

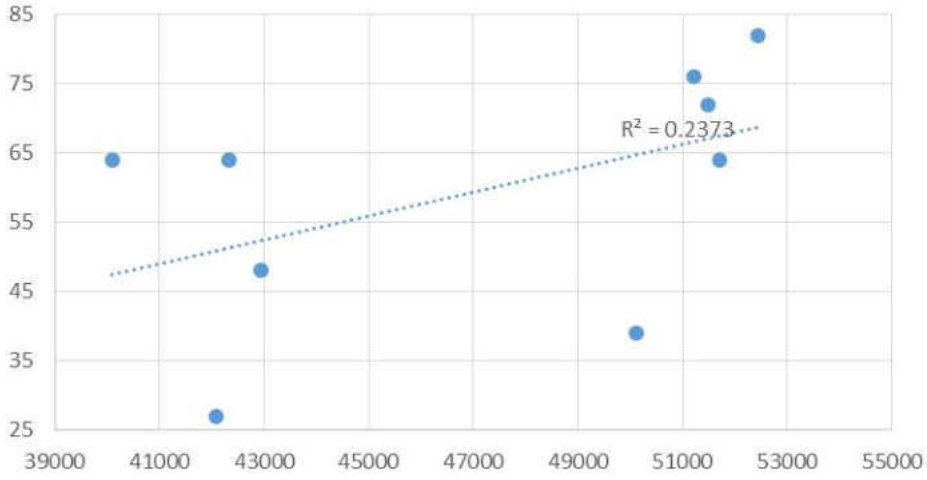


Figure 12. Allocated Instructional Time and End-of-course Examination (Geometry)

As shown in Figure 13, overall data related to student achievement in U. S. History and AIT had an $r^2 = 0.09$. U. S. History achievement was measured using the available U. S. History EOC results for Grade 11 respective to each school district in the sample. U. S. History EOC results were reported as mean scale scores. The mean scale scores were used in the calculation of a Pearson *r* between AIT and student achievement in U. H. History. The Pearson *r* calculated for U. S. History data and AIT represented no significant correlation between AIT and students' mean scale scores $r(7) = .33$, $p > .05$.

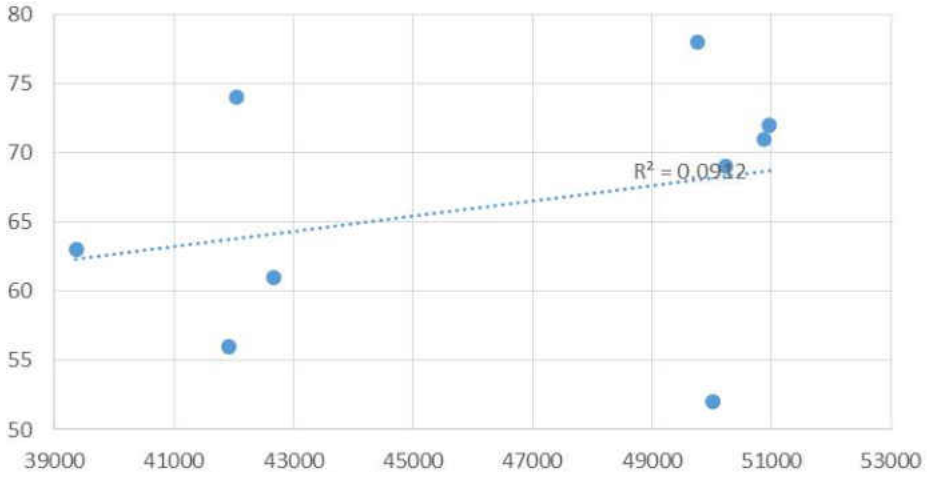


Figure 13. Allocated Instructional Time and End-of-course Examination (U. S. History)

Summary

Examination of specific assessments demonstrated no relationship between allocated instructional time (AIT) and student achievement as measured by the FCAT 2.0 Mathematics, Reading, Science, and Writing Scores in addition to Algebra, Geometry, Biology, Civics, and U. S. History EOC assessments. When the available assessment results were combined, there was revealed a significant positive relationship between AIT and student achievement. When taken separately, reading and mathematics achievement showed a significant relationship to AIT. The other assessed subject areas did not show significant relationships between student achievement and AIT. It is important to note that, when taken as a whole, a significant positive relationship was revealed between AIT and student achievement.

The purpose of this study was to compare allocated assessment time to allocated instructional time in randomly selected small, medium, and large school districts in

Florida. The results of the data analysis to answer the five research questions which guided this study have been presented in this chapter. Tabular data and figures have been used with accompanying narratives to present and explain the findings of the study. Chapter 5 contains a summary and discussion of the findings, and the connection between research questions is further explored. In addition, the results are discussed in relation to earlier research findings, and recommendations for the future study of allocated time are proposed.

CHAPTER 5
CONCLUSIONS AND RECOMMENDATIONS

Introduction

Chapter 1 provided background for the study, problem statement, and purpose of the study. The conceptual framework was presented. Chapter 1 introduced the set of six research questions that formed the foundation of the study. Delimitations and limitations of the study were provided and a synopsis of the methodology was discussed. Chapter 2 was a review of literature related to the study. A review of research related to allocated time, educational assessment, and student achievement was synthesized to further develop the conceptual framework.

Chapter 3 included further description of methodology used to collect and analyze data necessary for well-developed research question evaluation. In Chapter 4, the data results were discussed and the research questions answered. Chapter 5 explores the connection between research questions. In addition, the results are discussed in relation to earlier research findings and recommendations for the future study of allocated time are proposed.

Research Questions

The following five questions and related hypotheses were used to guide this research study:

1. What mandated assessments are administered in Florida's school districts?
2. How many minutes are used in preparation for mandated assessments administered in Florida's school districts?

3. How many minutes are used to administer mandated assessments in Florida's school districts?
4. What, if any, relationship exists between school district size and minutes of allocated assessment time in Florida's school districts?

   H_{01}. There is no relationship between school district size and minutes of allocated assessment time in Florida's school districts.
5. What, if any, relationship exists between amount of allocated instructional time and student achievement in Florida's school districts?

   H_{02}. There is no relationship between amount of allocated instructional time and student achievement in Florida's school districts.

Summary and Discussion of Findings

Qualitative analyses used in this study were addressed in Research Questions 1, 2, and 3. Quantitative analysis was necessary to determine the responses to Research Questions 4 and 5. In this chapter, the findings for the first three questions are supported in the discussion of findings related to Research Questions 4 and 5. The research questions were used in order to determine the possible practical implications of the study. They were also used to guide the discussion of recommendations for further research.

Research Question 1

What mandated assessments are administered in Florida's school districts?

The differences between school districts were examined through the school district mandated assessments. Every school district was required by statute to adhere to the state mandated assessment schedule. Therefore, differences among school districts were most apparent in the lists of school district mandated assessments. The school districts' assessment inventories were collected using publicly available assessment calendars, school improvement plans filed with the State, and school board documentation that demonstrated approval of the assessment calendar. School districts were reported in groups by school district size.

First, the small school district's assessment inventories contained a minimum of six and a maximum of 21 assessments by grade level. Medium school districts' assessment inventories contained a minimum of nine and a maximum of 14 assessments by grade level. Large school districts' assessment inventories had a minimum of two and a maximum of 41 assessments by grade level. Lastly, the state-mandated assessment inventory had a minimum of two and a maximum of 11 assessments by grade level.

An assessment was included in the study if it was used in the general student population. Assessments needed for measurement of specific subgroups were not included because of the lack of generalizability of the results. For example, the CELLA, Access Point assessment, and Language acquisition for students identified as ESE and ELL were not within the scope of this study.

Research Question 2

How many minutes are used in preparation for mandated assessments administered in Florida's school districts?

Data from Research Question 1 were used in arriving at the response to Research Question 2. A rubric was used to further categorize mandated assessments administered in Florida's school districts.

Data were disaggregated using a rubric relating time spent in preparation to the relative significance of the test to schools and students. The rubric was an adaptation of a rubric created by Howard Nelson (2013) in his study of time spent in preparation for assessments in school districts. In order to determine significance of an assessment, the rubric allowed for delineation between high-stakes and low-stakes assessment.

High-stakes assessments were those assessments that had an impact on school grade, and low-stakes assessments did not. In addition, the rubric included the student-centered aspect of impact on course grade. The rubric allowed for separation of assessments into low-grade and high-grade as related to course impact. A high-grade assessment had an impact greater than 15% on a student's course grade or impacted the credits received for the course.

State-mandated assessment preparation time was found to be a minimum of 300 and a maximum of 12,600 minutes of preparation per grade level. The total number of minutes used for state mandated assessment preparation across grade levels was 68,520. The following school district preparation times include preparation time for state-mandated assessments:

Small school districts' assessment preparation time ranged from a minimum of 1,020 to a maximum of 20,700 minutes of preparation by grade level. The average number of minutes used for school district mandated assessment preparation across grade levels was 105,300. Medium school districts' assessment preparation time ranged from a minimum of 300 to a maximum of 13,200 minutes of preparation by grade level. The average number of minutes used for school district mandated assessment preparation across grade levels was 84,920. Finally, large school districts' assessment preparation time ranged from a minimum of 420 to a maximum of 22,140 minutes of preparation by grade level. The average number of minutes used for school district mandated assessment preparation across grade levels was 145,780.

Research Question 3

How many minutes are used to administer mandated assessments in Florida's school districts?

State-mandated assessment administration time was found to be a minimum of 30 and a maximum of 1,440 minutes by grade level. The average number of minutes used for state mandated assessment administration across grade levels was 573. Small school districts' assessment administration time was found to be a minimum of 45 and a maximum of 855 minutes by grade level. The average number of minutes used for school district mandated assessment administration was 4,655. Medium school districts' assessment administration time was found to be a minimum of 0 and a maximum of 1,278 minutes by grade level. The average number of minutes used for school district

mandated assessment administration across grade levels was 10,302. Finally, large school districts' assessment administration time, excluding state mandated assessments, was found to be a minimum of 0 and a maximum of 2,076 minutes by grade level. The average number of minutes used for state and school district mandated assessment administration was 15,676.

There was up to a 39% loss of allocated instructional time in order to accommodate certain assessment plans. In many cases, the time lost was in the classroom where students missed content lessons in order to prepare for local and state mandated assessments.

The most dramatic increase in allocated assessment time (AAT) and resulting decrease in allocated instructional time (AIT) occurred in Grades 10, 11, and 12. Considering the drop-out concerns of policy-makers and administrators at this level, assessment practices must be discussed to help students be more qualified entering the work-force. Current legislation in the State mandates that assessments comprise no more than 5% of allocated educational time. Some grade levels examined in the study showed percentages closer to 40%.

Research Question 4

What, if any, relationship exists between district size and minutes of allocated assessment time in Florida's school districts?

The null hypothesis that guided Research Question 4 was that there was no relationship between school district size and AAT. The null hypothesis was not rejected,

as findings did not demonstrate a significant relationship between school district size and AAT. There were significant differences in the amount of AAT and school district size between small and large as well as medium and large school districts. No significant difference was found between small and medium sized school districts. Findings in this study showed that a significant difference in allocated assessment time existed between small and large, as well as medium and large school districts.

Results of the data analysis for Research Question 4 demonstrated larger school districts developed more expansive assessment programs. The results of this study support the findings of Rowe (1997) who determined that school districts were a rule-oriented bureaucratic organization. As the organization grew, more organization-focused expectations became apparent.

The use of assessments were linked to the need for higher levels of teacher accountability. The need for teacher accountability was examined in Wong's (2008) study which showed that the politics of educational funding has led to a focus on educational outputs, specifically, student achievement on standardized assessments. Teacher accountability became the intermediary, and teachers were subject to organizational rules which required them to assess students regularly to determine their own effectiveness, not the students' achievement.

Florida's class size law dictated the number of teachers in each school district based on the number of students enrolled. Greater numbers of students enrolled mandated a greater numbers of teachers. The greater the number of teachers in each

school district, the wider the scope of distribution of school district resources and the development of the rule-oriented bureaucracy described by Rowe (1997).

Research Question 5

What, if any, relationship exists between amount of allocated instructional time and student achievement in Florida's school districts?

The null hypothesis that guided Research Question 5 was that there was no relationship between allocated instructional time (AIT) and student achievement as measured by the FCAT 2.0 Mathematics, Reading, Science, and Writing Scores in addition to Algebra, Geometry, Biology, Civics, and U. S. History EOC assessments. The null hypothesis was rejected. When the available assessment results were combined there was a significant positive relationship between AIT and student achievement discovered during the study. When taken separately, Reading and Mathematics achievement showed a significant relationship to AIT. The other assessed subject areas did not show significant relationships between student achievement and AIT. It is important that, when taken as a whole, a significant positive relationship was revealed. As allocated instructional time increased, student achievement increased. The results of the present study supported prior research that demonstrated instructional time was positively related to levels of student achievement (Butler, 1925, 1936; Bell & Davidson, 1976; Wyss et al., 2013).

Increased AIT was related to higher levels of student achievement in the subjects of mathematics, reading, and science. The findings of this study related to writing

student achievement did not demonstrate significant levels of correlation. Possible reasons for this finding could be the differences in assessment scoring. The mathematics, reading, and science assessments used a standard, multiple choice answer sheet and were scored by machine. The writing assessment was free response and scored by humans. Increased human error could have caused more variability within writing assessment score data that resulted in lower levels of significance between the writing assessment and student achievement.

The primary implication of the results of the study was the correlation between amount of allocated assessment time (AAT) and student achievement. The lower the students' assessment scores, the more they were assessed. The resulting decrease in AIT detracted from students' learning more in order to assess more. Students with lower assessment scores should be given more instructional time, not less. This primary implication of the results of the data analysis for Research Question 5 supplement a 2012 study by Escue (2012) who found students of lower socioeconomic status were the most negatively impacted by high-stakes assessments. When combined with the notion that low socioeconomic students tend to be concentrated in low performing geographic areas, the results of this study imply that high levels of AAT may increase the achievement gap.

Implications for Practice

The assessment plans used by educational organizations serve the purpose of monitoring student progress and shaping the learning in the classroom to meet the needs of every student. In order to reach these goals, it is necessary to be sure that any

assessment plan does enhance student learning. The purpose of this study was to examine the relationship between the amount of time spent in assessment preparation and administration in Florida's public schools. Based upon the results, and as educational reform continues to be a prevalent topic of interest in society, more attention must be paid to the issue of loss of instructional time to assessment.

The methodology outlined in this study could be used by school districts to examine their assessment plans. The data used in this study were composed of publicly available documents. At the school district level, more thorough information could be collected from within the organization, and a better understanding of student learning and assessment could be gleaned. Additionally, school districts would have access to more thorough student data. The use of local assessment data could further enhance understanding of student learning and the relationship to assessment.

Recommendations for Further Study

Possible research extensions include further disaggregation of student data. A foreseeable analysis could include specific effects of AAT on sub-groups within a school district. The data gathered in the follow-up study could be used to determine assessment practices for sub-groups at each strata of AAT. The study presented could also be extended by examination of assessment time using different demographic variables. For example, the methodology could be used to examine the relationship between AAT and student achievement at the national, community, or school level. The data would allow for more targeted understanding of the students' needs. A study at the school or national

level would also shift the focus of educational reform towards more refined assessment practices.

APPENDIX A
UCF IRB APPROVAL

University of Central Florida Institutional Review Board
Office of Research & Commercialization
12201 Research Parkway, Suite 501
Orlando, Florida 32826-3246
Telephone: 407-823-2901, 407-882-2012 or 407-882-2276
www.research.ucf.edu/compliance/irb.html

From : **UCF Institutional Review Board #1**
FWA00000351, IRB00001138

To : **Samuel Crupi, Jr.**

Date : **November 06, 2014**

Dear Researcher:

On 11/06/2014 the IRB determined that the following proposed activity is not human research as defined by DHHS regulations at 45 CFR 46 or FDA regulations at 21 CFR 50/56:

Type of Review:	Not Human Research Determination
Project Title:	The Effect of Allocated Assessment Time and Allocated Instructional Time on Student Achievement in Small, Medium, and Large School Districts in Florida
Investigator:	Samuel Crupi Jr.
IRB ID:	SBE-14-10693
Funding Agency:	
Grant Title:	
Research ID:	N/A

University of Central Florida IRB review and approval is not required. This determination applies only to the activities described in the IRB submission and does not apply should any changes be made. If changes are to be made and there are questions about whether these activities are research involving human subjects, please contact the IRB office to discuss the proposed changes.

On behalf of Sophia Dziegielewski, Ph.D., L.C.S.W., UCF IRB Chair, this letter is signed by:

Joanne Muratori

Signature applied by Joanne Muratori on 11/06/2014 02:18:53 PM EST

IRB Coordinator

APPENDIX B
ALLOCATED ASSESSMENT TIME CALCULATIONS

Descriptor	K	1	2	3	4	5	6	7	8	9	10	11	12
Broward													
Br prep	420	900	900	5700	5400	8400	3600	3600	6600	15000	19200	19800	19800
Br admin	0	90	240	1158	930	840	840	980	930	1380	1470	1520	1380
District AAT	420	990	1140	6858	6330	9240	4440	4580	7530	16380	20670	21320	21180
State AAT	60	30	30	310	280	500	280	440	500	1120	1180	1440	1440
Br AAT	480	1020	1170	7168	6610	9740	4720	5020	8030	17500	21850	22760	22620
AT	64800	64800	64800	64800	64800	64800	64800	64800	64800	64800	64800	64800	64800
AIT	64320	63780	63630	57632	58190	55060	60080	59780	56770	47300	42950	42040	42180
% AIT	99.25926	98.42593	98.19444	88.93827	89.79938	84.96914	92.71605	92.25309	87.60802	72.99383	66.28086	64.87654	65.09259
% AAT	0.740741	1.574074	1.805556	11.06173	10.20062	15.03086	7.283951	7.746914	12.39198	27.00617	33.71914	35.12346	34.90741
Duval													
Duval Prep	3660	4140	4140	7740	8340	11040	13740	14040	16440	18240	21540	22140	22140
Duval Admin	585	951	1176	1061	1421	1961	1986	2031	2076	2031	1986	1856	1555
District AAT	4245	5091	5316	8801	9761	13001	15726	16071	18516	20271	23526	23996	23695
State AAT	60	30	30	310	280	500	280	440	500	1120	1180	1440	1440
Duval AAT	4305	5121	5346	9111	10041	13501	16006	16511	19016	21391	24706	25436	25135
AT	64800	64800	64800	64800	64800	64800	64800	64800	64800	64800	64800	64800	64800
Duval AIT	60495	59679	59454	55689	54759	51299	48794	48289	45784	43409	40094	39364	39665
% AIT	93.35648	92.09722	91.75	85.93981	84.50463	79.16512	75.29938	74.52006	70.65432	66.9892	61.87346	60.74691	61.21142
% AAT	6.643519	7.902778	8.25	14.06019	15.49537	20.83488	24.70062	25.47994	29.34568	33.0108	38.12654	39.25309	38.78858
Hillsborough													

Descriptor	K	1	2	3	4	5	6	7	8	9	10	11	12
Hill Prep	2640	5400	5820	10500	9300	13020	11820	12360	14460	15540	19740	19440	20640
Hill Admin	180	543	633	678	633	768	1188	1938	1908	1713	1803	1260	1350
District AAT	2820	5943	6453	11178	9933	13788	13008	14298	16368	17253	21543	20700	21990
State AAT	60	30	30	310	280	500	280	440	500	1120	1180	1440	1440
Hill AAT	2880	5973	6483	11488	10213	14288	13288	14738	16868	18373	22723	22140	23430
AT	64800	64800	64800	64800	64800	64800	64800	64800	64800	64800	64800	64800	64800
Hill AIT	61920	58827	58317	53312	54587	50512	51512	50062	47932	46427	42077	42660	41370
% AIT	95.55556	90.78241	89.99537	82.2716	84.2392	77.95062	79.49383	77.25617	73.96914	71.6466	64.93364	65.83333	63.84259
% AAT	4.444444	9.217593	10.00463	17.7284	15.7608	22.04938	20.50617	22.74383	26.03086	28.3534	35.06636	34.16667	36.15741
Citrus													
Citrus Prep	420	300	300	5700	5400	9000	4200	4200	6600	8400	12000	13200	13200
Citrus Admin	0	0	0	405	405	405	405	405	405	405	405	405	405
District AAT	420	300	300	6105	5805	9405	4605	4605	7005	8805	12405	13605	13605
State AAT	60	30	30	310	280	500	280	440	500	1120	1180	1440	1440
Citrus AAT	480	330	330	6415	6085	9905	4885	5045	7505	9925	13585	15045	15045
AT	64800	64800	64800	64800	64800	64800	64800	64800	64800	64800	64800	64800	64800
Citrus AIT	64320	64470	64470	58385	58715	54895	59915	59755	57295	54875	51215	49755	49755
% AIT	99.25926	99.49074	99.49074	90.10031	90.60957	84.71451	92.46142	92.21451	88.41821	84.68364	79.03549	76.78241	76.78241
% AAT	0.740741	0.509259	0.509259	9.899691	9.390432	15.28549	7.53858	7.785494	11.58179	15.31636	20.96451	23.21759	23.21759
Indian River													
IR Prep	2220	3300	3300	7200	6000	9600	4800	4800	7200	9000	12600	12300	11400

Descriptor	K	1	2	3	4	5	6	7	8	9	10	11	12
IR Admin	648	858	858	1278	900	900	900	1080	900	900	900	180	0
District AAT	2868	4158	4158	8478	6900	10500	5700	5880	8100	9900	13500	12480	11400
State AAT	60	30	30	310	280	500	280	440	500	1120	1180	1440	1440
IR AAT	2928	4188	4188	8788	7180	11000	5980	6320	8600	11020	14680	13920	12840
AT	64800	64800	64800	64800	64800	64800	64800	64800	64800	64800	64800	64800	64800
IR AIT	61872	60612	60612	56012	57620	53800	58820	58480	56200	53780	50120	50880	51960
% AIT	95.48148	93.53704	93.53704	86.43827	88.91975	83.02469	90.7716	90.24691	86.7284	82.99383	77.34568	78.51852	80.18519
% AAT	4.518519	6.462963	6.462963	13.56173	11.08025	16.97531	9.228395	9.753086	13.2716	17.00617	22.65432	21.48148	19.81481
Nassau													
Nassau Prep	420	300	300	5220	4920	8520	3720	3720	6120	7920	11520	12720	12720
Nassau Admin	0	0	0	405	405	405	405	405	405	405	405	405	405
District AAT	420	300	300	5625	5325	8925	4125	4125	6525	8325	11925	13125	13125
State AAT	60	30	30	310	280	500	280	440	500	1120	1180	1440	1440
Nassau AAT	480	330	330	5935	5605	9425	4405	4565	7025	9445	13105	14565	14565
AT	64800	64800	64800	64800	64800	64800	64800	64800	64800	64800	64800	64800	64800
Nassau AIT	64320	64470	64470	58865	59195	55375	60395	60235	57775	55355	51695	50235	50235
% AIT	99.25926	99.49074	99.49074	90.84105	91.35031	85.45525	93.20216	92.95525	89.15895	85.42438	79.77623	77.52315	77.52315
% AAT	0.740741	0.509259	0.509259	9.158951	8.649691	14.54475	6.79784	7.044753	10.84105	14.57562	20.22377	22.47685	22.47685
Dixie													
Dixie Prep	2820	2700	2700	5700	5400	9000	4200	4200	7200	8400	12000	13200	12300
Dixie Admin	240	408	408	90	90	135	90	90	255	90	135	135	45

Descriptor	K	1	2	3	4	5	6	7	8	9	10	11	12
District AAT	3060	3108	3108	5790	5490	9135	4290	4290	7455	8490	12135	13335	12345
State AAT	60	30	30	310	280	500	280	440	500	1120	1180	1440	1440
Dixie AAT	3120	3138	3138	6100	5770	9635	4570	4730	7955	9610	13315	14775	13785
AT	64800	64800	64800	64800	64800	64800	64800	64800	64800	64800	64800	64800	64800
Dixie AIT	61680	61662	61662	58700	59030	55165	60230	60070	56845	55190	51485	50025	51015
% AIT	95.18519	95.15741	95.15741	90.58642	91.09568	85.13117	92.94753	92.70062	87.72377	85.16975	79.45216	77.19907	78.72685
% AAT	4.814815	4.842593	4.842593	9.41358	8.904321	14.86883	7.052469	7.299383	12.27623	14.83025	20.54784	22.80093	21.27315
Franklin													
Franklin Prep	3720	3600	3600	6600	6300	9900	12300	12300	15000	16800	20400	20700	20700
Franklin Admin	478	478	478	315	315	315	855	855	885	885	885	750	750
District AAT	4198	4078	4078	6915	6615	10215	13155	13155	15885	17685	21285	21450	21450
State AAT	60	30	30	310	280	500	280	440	500	1120	1180	1440	1440
Franklin AAT	4258	4108	4108	7225	6895	10715	13435	13595	16385	18805	22465	22890	22890
AT	64800	64800	64800	64800	64800	64800	64800	64800	64800	64800	64800	64800	64800
Franklin AIT	60542	60692	60692	57575	57905	54085	51365	51205	48415	45995	42335	41910	41910
% AIT	93.42901	93.66049	93.66049	88.85031	89.35957	83.46451	79.26698	79.02006	74.71451	70.97994	65.33179	64.67593	64.67593
% AAT	6.570988	6.339506	6.339506	11.14969	10.64043	16.53549	20.73302	20.97994	25.28549	29.02006	34.66821	35.32407	35.32407
Gulf													
Gulf Prep	1140	1020	1020	4620	4320	7920	3120	3120	5520	7320	10920	12120	12120
Gulf Admin	270	270	270	270	270	270	270	270	270	270	270	270	270

Descriptor	K	1	2	3	4	5	6	7	8	9	10	11	12
District AAT	1410	1290	1290	4890	4590	8190	3390	3390	5790	7590	11190	12390	12390
State AAT	60	30	30	310	280	500	280	440	500	1120	1180	1440	1440
Gulf AAT	1470	1320	1320	5200	4870	8690	3670	3830	6290	8710	12370	13830	13830
AT	64800	64800	64800	64800	64800	64800	64800	64800	64800	64800	64800	64800	64800
Gulf AIT	63330	63480	63480	59600	59930	56110	61130	60970	58510	56090	52430	50970	50970
% AIT	97.73148	97.96296	97.96296	91.97531	92.48457	86.58951	94.33642	94.08951	90.29321	86.55864	80.91049	78.65741	78.65741
% AAT	2.268519	2.037037	2.037037	8.024691	7.515432	13.41049	5.66358	5.910494	9.70679	13.44136	19.08951	21.34259	21.34259

LIST OF REFERENCES

American Recovery and Reinvestment Act (ARRA) of 2009, Pub. L. No. 111-5, 123 Stat.115, 516 (Feb. 19, 2009).

Anderson, K. B. (2012). Science education and test-based accountability: Reviewing their relationship and exploring implications for future policy. *Science Education, 96*(1), 104-129.

Bell, Michael L., & Davidson, Charles W. (1976). Relationships between pupil-on-task performance and pupil achievement. *The Journal of Educational Research, 69*(5),172-176.

Berliner, D. C. (1978, April). *Allocated time, engaged time, and academic learning time in elementary school mathematics instruction.* Paper presented at the annual meeting of the National Council on Teaching Mathematics, San Diego, CA.

Berryhill, J., Linney, J., & Fromewick, J. (2009). The effects of education accountability on teachers: Are policies too stress provoking for their own good? *International Journal of Education Policy and Leadership, 4*(5), 1-14.

Beyer, L. E. (2002). The politics of standardization: Teacher education in the USA. *Journal of Education for Teaching, 28*(3), 239-245.

Brophy, J. E., Rohrkemper, M., Rashid, H., & Goldberger, M. (1982). Relationships between teachers' presentations of classroom tasks and students' engagement in those tasks. The Institute for Research on Teaching. Michigan State University.

Broward County Public Schools. (2013). *2013 – 2014 District-Wide Testing Calendar*. Fort Lauderdale, FL.

Broward County Public Schools. (2013). *Elementary school test administrator's manual: Benchmark assessment test: Grades K - 5*. Fort Lauderdale, FL.

Broward County Public Schools. (2013). *High school test administrator's manual: Benchmark assessment test: Grades 9 - 12*. Fort Lauderdale, FL.

Broward County Public Schools. (2013). *Middle school test administrator's manual: Benchmark assessment test: Grades 6 - 8*. Fort Lauderdale, FL.

Butler, C. H. (1925). School achievement and attendance. *The School Review*, *33*(6), 450-452.

Butler, C. H. (1936). The relation of achievement and attendance in one high school. *The School Review*, *44*(4), 288-290.

Carroll, J. (1963). A model of school learning. *Teachers College Record, 64*, 723-733.

Chapman, E. (2003). Alternative approaches to assessing student engagement rates. *Practical Assessment, Research & Evaluation, 8*(13).

Cheng, L., Andrews, S., & Yu, Y. (2011). Impact and consequences of school-based assessment (SBA): Students' and parents' views of SBA in Hong Kong. *Language Testing, 28*(2), 221-249.

Chiang, H. (2009). How accountability pressure on failing schools affects student achievement. *Journal of Public Economics, 93*(9), 1045-1057.

Citrus County Schools. (2013). *2013 - 2014 District-wide assessment calendar*. Inverness, FL.

Citrus County Schools. (2014). *2014 - 2015 District-wide assessment calendar*. Inverness, FL.

Citrus County Schools. (2012). *2012 - 2013 District-wide assessment calendar.* Inverness, FL.

Citrus County Schools. (2013). *2013 - 2014 District-wide assessment calendar.* Inverness, Florida.

Conway, P.F., & Murphy, R., (2013): A rising tide meets a perfect storm: New accountabilities in teaching and teacher education in Ireland. *Irish Educational Studies, 32*(1), 11-36.

Craig, S. G., Imberman, S. A., & Perdue, A. (2013). Does it pay to get an A? School resource allocations in response to accountability ratings. *Journal of Urban Economics, 73*(1), 30-42.

Curriculum Associates, LLC. (2012). *I-Ready diagnostic and instruction.* Retrieved from http://www.curriculumassociates.com/

Derrington, M., & Larsen, D. E. (2012). Principal pressure in the middle of accountability. *Journal of Cases in Educational Leadership, 15*(4), 65-75.

Devine, D., Fahie, D., & McGillicuddy, D. (2013). What is 'good' teaching? Teacher beliefs and practices about their teaching. *Irish Educational Studies. 32*(1), 83-108.

Diamond, J. B. (2012). Accountability policy, school organization, and classroom practice: Partial recoupling and educational opportunity. *Education and Urban Society, 44*(2), 151-182.

Discovery Education. (2013). *Assessment user's guide*. Retrieved from www.discoveryeducation.com.

Dixie District Schools. (2014). *2013-2014 Assessment calendar*. Cross City, FL.

Doppelt, Y., Mehalik, M. M., Schunn, C. D., Silk, E., & Krysinski, D. (2008). Engagement and achievements: A case study of design-based learning in a science context. *Journal of Technology Education, 19*(2), 22-39.

Duffy, M., Giordano, V. A., Farrell, J. B., Paneque, O. M., & Crump, G. B. (2008). No Child Left Behind: Values and research issues in high-stakes assessments. *Counseling and Values, 53*(1), 53.

Duval County Public Schools. (2013). *Assessment and survey calendar 2013 - 2014*. Jacksonville, FL.

Duval County Public Schools. (2013). *Curriculum guide assessments (CGA)/ Collaborative assessment system for teachers (CAST): Test administration manual*. Jacksonville, FL.

Elementary and Secondary Education Act of 1965 (ESEA) (P.L. 89-10)

Escue, C. (2012). Adequate yearly progress as a means of funding public elementary and secondary education for impoverished students: Florida funding. *Journal of Education Finance, 37*(4), 347-373.

Finlay, Krystina, A. (2006) Quantifying school engagement: Research report. National Center for School Engagement (NCSE).

Finn, J. D. (1989). Withdrawing from school. *Review of Educational Research*, *59*(2), 117-142.

Finn, J. D. (1993). *School engagement & students at risk.* Washington, DC: National Center for Education Statistics.

Finn, J. D., & Rock, D. A. (1997). Academic success among students at risk for school failure. *Journal of Applied Psychology*, *82*(2), 221-234.

Florida Department of Education. (2012). *Strategic Plan.* Retrieved from https://www.fldoe.org/board/meetings/2012_10_09/strategicv3.pdf

Florida Department of Education. (2013). *Understanding FCAT 2.0 reports, Spring 2013*. Tallahassee: Author.

Florida Department of Education. (2014a). *Florida Education Finance Program 2013-14: Fourth calculation.* Tallahassee: Author.

Florida Department of Education. (2014b). *2013 - 2014 Algebra 1 End Of Course (EOC) Assessment Fact Sheet*. Retrieved from http://www.fldoe.org/accountability/assessments/k-12-student-assessment/historyof-fls-statewide-assessment/archived-publications.stml

Florida Department of Education. (2014c). *2013 - 2014 Biology 1 End Of Course (EOC) Assessment Fact Sheet*. Retrieved from http://www.fldoe.org/accountability/assessments/k-12-student-assessment/history of-fls-statewide-assessment/archived-publications.stml

Florida Department of Education. (2014d). *2013 - 2014 Civics End Of Course (EOC) Assessment Fact Sheet*. Retrieved from http://www.fldoe.org/accountability/assessments/k-12-student-assessment/history -of-fls-statewide-assessment/archived-publications.stml

Florida Department of Education. (2014e). *2013-2014 Florida Comprehensive Assessment Test (FCAT) 2.0 Reading, Mathematics, Science, and Writing fact*

sheet. Retrieved from http://www.fldoe.org/accountability/assessments/k-12-student-assessment/history-of-fls-statewide-assessment/archived-publications.stml

Florida Department of Education (2014f). *Florida Comprehensive Assessment Test 2.0 Results*. Retrieved from www.fldoe.org.

Florida Department of Education. (2014g). *2013 - 2014 Geometry End Of Course (EOC) Assessment Fact Sheet*. Retrieved from http://www.fldoe.org/accountability/assessments/k-12-student-assessment/history-of-fls-statewide-assessment/archived-publications.stml

Florida Department of Education. (2014h). *Florida Statewide Assessment Program: 2013 - 2014 schedule*. Retrieved from http://www.fldoe.org/accountability/assessments/k-12-student-assessment/assessment-schedules.stml

Florida Department of Education. (2014i). *2013 - 2014 United States History End Of Course (EOC) Assessment Fact Sheet*. Retrieved from http://www.fldoe.org/accountability/assessments/k-12-student-assessment/history-of-fls-statewide-assessment/archived-publications.stml

Frahm, R., & Covington, J. (1979). *What's happening in minimum competency testing*. Bloomington, IN: Phi Delta Kappa.

Franklin County School District. (n.d.). *Assessment calendar 2013 - 2014*. Eastpoint, FL.

Fredricks, J., McColskey, W., Meli, J., Mordica, J., Montrosse, B., & Mooney, K., (2011). Measuring student engagement in upper elementary through high school: A description of 21 instruments. *Summary. Issues & Answers,* (98).

Frymier, J. (1998). Accountability and student learning. *Journal of Personnel Evaluation in Education, 12*(3), 233-235.

Good, C. J. (2010). A Nation at Risk: Committee members speak their minds. *American Educational History Journal, 37*(2), 367-386.

Good, R. H., & Kaminski, R. A. (Eds.) (2002). *Dynamic indicators of basic early literacy skills* (6th ed.). Eugene, OR

Gulf District Schools. (n.d.). *2013 - 2014 Testing schedule*. Port Saint Joe, FL.

Hattie, J. (2009). *Visible learning: A synthesis of over 800 meta-analyses relating to achievement*. London, UK: Routledge.

Hillsborough County Public Schools. (2013). *Testing Calendar: 2013 – 2014*. Tampa, FL.

Hirsch, L. (2007). Closing the gaps of No Child Left Behind: The assessment debate for essential schools. *Horace, 23*(1).

Huot, B., O'Neill, P., & Moore, C. (2010). A usable past for writing assessment. *College English, 72*(5), 495-517.

Jacob, B. A. (2005). Accountability, incentives and behavior: The impact of high-stakes testing in Chicago Public Schools. *Journal of Public Economics, 89*(2005), 761-796.

Jennings, J. L. (2012). The effects of accountability system design on teachers' use of test score data. *Teachers College Record, 114*(11).

Johanningmeier, E. V. (2010). "A Nation at Risk" and "Sputnik": Compared and reconsidered. *American Educational History Journal, 37*(2), 347-365.

Kallemeyn, L. M. (2009). Responding to the demands of assessment and evaluation in Catholic Education. *Catholic Education: A Journal of Inquiry and Practice, 12*(4), 498-518.

Kelly, A. E., & Leavy, A. (2013) The design space of student learning: Who is accountable and accountable for what?. *Irish Educational Studies, 32*(1), 1-6.

Klinger, D. A., DeLuca, C., & Miller, T. (2008). The evolving culture of large-scale assessments in Canadian education. *Canadian Journal of Educational Administration and Policy*, (76), 1-34.

Krieg, J. M. (2011). Which students are left behind? The racial impacts of the No Child Left Behind Act. *Economics of Education Review*, *30*(4), 654-664.

Loughman, David, F. (2012). Cognitive Abilities Test. Rolling Meadows, IL: Riverside.

Mausethagen, S. (2013). A research review of the impact of accountability policies on teachers' workplace relations. *Educational Research Review, 9*(1), 16-33.

Mendro, M. (1998). Student achievement and school and teacher accountability. *Journal of Personnel Evaluation in Education, 12*(3), 257-267.

Nassau County School District. (n.d.). *2013 - 2014 Calendar*. Fernandina Beach, FL.

National Commission on Excellence in Education. (1983). *A nation at risk: The imperative for educational reform : A report to the Nation and the Secretary of Education, United States Department of Education*. Washington, DC: The Commission.

National Governors Association Center for Best Practices & Council of Chief State School Officers. (2010). *Common core state standards*. Washington, DC: Authors. Retrieved from http://www.corestandards.org/the-standards

Nelson, H. (2013). *Testing more, teaching less*. Retrieved from http://www.aft.org/sites/default/files/news/testingmore2013.pdf

New York State Education Department. (2004). *The impact of high-stakes exams on students and teachers*. Policy brief.

Nichols, S. L., Glass, G. V., & Berliner, D. C. (2012). High-stakes testing and student achievement: Updated analyses with NAEP data. *Education Policy Analysis Archives, 20.*

No Child Left Behind (NCLB) Act of 2001, 20 U.S.C.A. § 6301 et seq. (West, 2003).

No Child Left Behind Act of 2001 (NCLB), 20 U.S.C. (2002).

Olvera, G. (2015). Language Assessment Scales Links. CTB/McGraw Hill. Retrieved from www.ctb.com

Ravitch, D. (2010). *The death and life of the great American school system: How testing and choice are undermining education.* New York, NY: Basic Books.

Reback, R. L. (2008). Teaching to the rating: School accountability and the distribution of student achievement. *Journal of Public Economics, 92*(5-6): 1394-1415.

Rodriguez, A. J. (2006). The politics of domestication and curriculum as pasture in the United States. *Teaching and Teacher Education, 22*(7), 804-111.

Roswell, F.G., Chall, J.S., Curtis, M.E., & Kearns, G. (2013). *Diagnostic assessments of reading*. Retrieved from www.proedinc.com.

Rowe, Sandra G. (1997). The impact of experience, education, and training on the prosocial decision-making of school board members and school district superintendents in Florida. Unpublished dissertation.

Sanford, T., & Hunter, J. M. (2011). Impact of performance-funding on retention and graduation rates. *Education Policy Analysis Archives, 19*(33).

Scholastic Testing Services. (2011). Kindergarten Readiness Test. Retrieved from www.ststesting.com

School District of Indian River County. (2014). *Local assessment schedule 2013-2014*. Vero Beach, FL.

Scott, T. (2011). A nation at risk to win the future: The state of public education in the U. S. *Journal for Critical Education Policy Studies, 9*(1), 267-316.

Seton Testing Services. (n.d.). *IOWA administration and completion times*. Retrieved from http://www.setontesting.com/iowa-tests/

Smith, E. (2008). Raising standards in American schools: Problems with improving teacher quality. *Teaching and Teacher Education, 24*(3), 610-622.

Spanjers, D., Burns, M., & Wagner, A. (2008). Systematic direct observation of time on task as a measure of student engagement. *Assessment for Effective Intervention*, *33*(2), 120-126.

Supovitz, J. (2009). Can high stakes testing leverage educational improvement? Prospects from the last decade of testing and accountability reform. *Journal of Educational Change, 10*(2-3), 211-227.

Taut, S., Santeliches, V., Araya, C., & Manzi, J. (2010). Theory underlying a national teacher evaluation program. *Evaluation and Program Planning, 33*(4), 477-486.

Tetlock, P. E., Vieider, F. M., Patil, S. V., & Grant, A. M. (2013). Accountability and ideology: When left looks right and right looks left. *Organizational Behavior and Human Decision Processes, 122*(1), 22-35.

U. S. Department of Education. (2009a). President Obama, U.S. Secretary of Education Duncan announce national competition to advance school reform [Press release]. Retrieved from www2.ed.gov/news/pressreleases/2009/07/07242009.html

U. S. Department of Education. (2009b). Race to the Top executive summary. Retrieved from http://www2.ed.gov/programs/racetothetop/executive-summary.pdf

Vernaza, N. A. (2012). Teachers' perceptions of high-stakes accountability in Florida's Title I elementary schools. *Current Issues in Education*, *15*(1).

Waters, J. K. (2012). Resolving the formative assessment catch-22. *T.H.E. Journal, 39*(7), 8-14.

Wiliam, D. (2011). What is assessment for learning?. *Studies in Educational Evaluation,37*(1),3-14.

Wong, K. K. (2008). Political context of education finance in the United States. *Educational Studies in Japan: International Yearbook,* (3), 41-52.

Wyss, V. L., Dolenc, N., Kong, X., & Tai, R. H. (2013). Time on text and science achievement for high school biology students. *American Secondary Education, 41*(2), 49-59.

§ 1001.30, Fla. Stat. (2013).

§ 1003.428, Fla. Stat. (2013).