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Teachers' Perspectives of the Common Core State Standards and Computer-Based Standardized Testing

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Teachers' Perspectives of the Common Core State Standards and Computer-Based Standardized Testing

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Lisa Flynn

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Dedication

This research is dedicated to all the students and teachers who face challenges with standardized testing. My work is also dedicated to my late Uncle Alan Ryle, a man who fought for the rights of individuals with disabilities for the greater part of his life. Education was very important to him, although I did not receive my bachelor's degree until I was 45, I do believe he was the loudest individual in the crowd when I walked. Sadly, he will never see the outcome of the thesis, but he was there in the beginning of the journey. Thank you, Uncle Al, for always believing in me, and always showing me just how proud you were of me.

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I want to give a special thanks to Terry Diss, my former boss, co-worker, and dear friend. You are an inspiration to those around you, and to those who know you and your work. The dedication you put into your work to make a difference in thousands of children's lives, was both a privilege and an honor to experience firsthand. Thank you for all the encouraging words and support that you have shown me over the past six years during this journey.

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Abstract

Theorist Jean Piaget in the 1920's abandoned standardized testing which he viewed as, "forcing children to respond into artificial channels of set questions and answers" (as cited in Crain, 2011, p. 119). Piaget decided to create a different type of assessment which included an open-ended interview, "which encourages the flow of spontaneous tendencies" (as cited in Crain, 2011, p. 119). John Locke (2003), believed that an individual learns through experiences. Jean Rousseau (2003), believed more in the natural child-centered, and experience-based learning. Pestalozzi (2003), believed that children learn by doing, and that children should be educated physically, emotionally, and mentally (Henson, 2003). The purpose of the study was to explore the developmentally appropriate implementation of both the Common Core State Standards and the computer-based standardized testing for students in grades third through sixth.

The FlyDAC questionnaire was distributed through email, to teachers who teach grades third through sixth. Seven participants answered demographic and developmentally appropriate Common Core State Standards, and computer-based standardized testing questions as well as open-ended questions. The demographics, the developmentally appropriate Common Core State Standards, and computer-based standardized testing data, were analyzed using frequencies. Qualitative analysis found three themes. 1) Developmental appropriate standards. 2) Teachers do not know what his or her students are being tested on. 3) Keyboards as a tool for written responses for students in the grades third through sixth. Further research should expand on the developmentally appropriate implementation of both the standards and computer-based testing by including more school districts. In addition, future researchers could compare

the possible educational gaps which may exist due to the differences from one school district that uses iPads as an educational tool, compared to other school districts who do not have enough access to computers within the same region.

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Chapter One

Introduction

For hundreds of years, well known theorists such as Piaget, Montessori, and Vygotsky, to name a few, have made huge discoveries through research concerning child development. Children learning, growing, experimenting, discovering, succeeding and failing. The most consistent findings involve the "whole child", the child grows cognitively, psychologically, and physically through experimentation, observation, exploration of one's environment, and working at his or her own pace. Children all develop by going through different stages, and at different times, hence; children are diverse. Therefore, there needs to be an education where all children can experience learning at his or her developmentally appropriate stage in life (Crain, 2011).

The influence and expectations from a society can hinder the natural learning process by trying to hinder children, and force one particular learning process for each child. All individuals have needs and once those needs are met, the individuals move on to meet other needs. A child's psychological, physical, and cognitive developments are the same. Individuals who work with children need to do more observing and assist when needed; the child has a natural ability to learn by using his or her needs from within. Children have a natural ability for creativity, curiosity, and a sense of learning in a way that fulfills each child's needs. Therefore, the educational experience for children should include a developmentally appropriate curriculum with developmentally appropriate assessments in which children's lives become enriched with knowledge, and because of the diversity which exists, the "whole child" should be assessed rather than limited to assessments of right or wrong answers (Crain, 2011).

Statement of the Problem

The purpose of this study was to examine the teachers' views on the implementation of the new Common Core State Standards (CCSS), and the computer-based standardized tests. The study identified and determined if the computer-based testing, with the requirement of the use of key boards is developmentally appropriate for students in grades third through sixth. One of the concerns with the new CCSS is the implementation of the Partnership for Assessment of Readiness for College and Careers (PARCC), standardized test which is given on a computer, with the use of keyboards to type written responses at the elementary grade levels (PARCC, 2015). The CCSS, "were never piloted in an actual classroom before implementation began" (Strauss, 2014, p. 6). Computer-based testing may be developmentally appropriate for students in middle school and high school; however, students who are in the third grade through sixth grade are still in the process of developing fine motor skills. Therefore, having to type a written response to questions in a timely manner could create anxiety and added pressure which could contribute to unnecessary stress (PARCC, 2015; Strauss, 2014).

Research has shown anxiety levels in both teachers and students increase during standardized testing. The expectations which are set for student's performance on standardized testing increases the anxiety levels of both lower- achieving students and higher- achieving students. For teachers, the anxiety increases during standardized testing, from the pressure of having his or her teaching abilities critiqued based on his or her students' performance on the tests (Paris, Lawton, Turner & Roth, 1991; Mulvennon, Stegman & Ritter, 2005; Segool, Carlson, Gofoth, Von Der Embse & Barterian, 2013; William, 2010).

Furthermore, the increasing demands which have been put on teachers and the educational systems through standardized testing has created a concern regarding the developmentally appropriate implementation of both the curriculum and testing for the students (Rothman & Henderson, 2014). There has been a growing concern with the accountability from standardized tests as a means for academic measurement and the influence in which the testing affects the teaching, curriculum, instructional time, and student learning (Aydeniz & Southerland, 2012). With the new CCSS one of the concerns with developmentally appropriate implementation, is the computer-based testing and the time in which is spent on the test preparation (Strauss, 2014).

Definitions of Terminology

1. No Child Left Behind Act (NCLB) 2002 was passed during the George W. Bush administration. No Child left Behind focused on high-stakes standardized testing and accountability, (Segool, Carlson, Goforth, Von Der Embse, & Barterian, 2013).
2. Race to the Top (RTTT), has replaced the previous name of NCLB (Wexler, 2014).
3. Partnership for Assessment of Readiness for College and Careers (PARCC), the test which accompanies the Common Core State Standards (PARCC, 2015).
4. Adequate Yearly Progress (AYP), is documented every year to show if students are making academic gains (Rotheman, & Henderson, 2011).
5. Common Core State Standards (CCSS), the new standards which have been put into place in the educational system for each state to follow, rather than each state having different standards (Turgut, 2013).

6. Developmentally Appropriate- Referring to the students age appropriate developments according to age (Strauss, 2014).
7. National Defense Education Act (NDEA), which was passed in 1958 (Turgut, 2013).

Significance of Study

According to Haugland and Shade (1988), "A computer is an educational tool; however, computer experiences must be designed and selected for young children to reflect a sound developmental approach to learning" (p. 37). Children learn by exploring the world in which he or she lives in. Natural learned behaviors such as walking, talking, knowing individuals within his or her life, being able to identify objects in the environment in which one is raised are all learned through knowledge and exploring (Haugland & Shade, 1988). Computer programs are very similar in this aspect. Computer programs designed for children need to be developmentally appropriate for the ages in which children are exploring (Haugland & Shade, 1988).

The technological advances within the United States have become a second nature to the younger generations. The iPod touch, tablets, iPad, smart boards, along with other technological devices which are touch screen are easily maneuvered by most children. Several computer-based learning programs where the use of a mouse is required, takes very little time to teach children. However, the use of a computer keyboard or keypad for children who attend the grades of third through sixth might take longer to teach, and for the children to maneuver the keyboard or keypad. Due to fine motor skills development and maturation of children at different stages and times, the use of a keyboard or keypad to type written responses, might take several months to years before children in the

grades third through sixth would be able to master this task. Therefore, further research needs to be conducted to determine if the PARCC standardized testing is developmentally appropriate for students grades third through sixth.

The significance of the study was to determine if the new CCSS, along with implementation of the PARCC computer-based testing, is developmentally appropriate for students in grades third through sixth. Currently, there exists little research on developmentally appropriate implementation on standardized testing for the grades third through sixth. This study will add to existing literature on both the developmentally appropriate implementation of the new CCSS and PARCC testing. The information which was collected will add to existing knowledge of developmentally appropriate curriculum and standardized testing. The information can assist teachers, school districts, and those who are responsible for creating standards for educational institutions. The in-depth information and the knowledge on the topic could assist with creating new policies to ensure that all children are receiving a developmentally appropriate education.

Research Questions

This study investigated the educational gaps which exist within the educational institutions, and investigated the developmentally appropriate implementation of both the Common Core State Standards and the computer-based standardized testing. This study identified the following research questions:

1. How much instructional time during a school day do teachers feel he or she spends on preparing students for the computer-based standardized tests?

2. From a teacher's perspective, are the type written responses, which are required for the computer-based standardized testing, developmentally appropriate for children in the grades third through sixth?

3. From a teacher's perspective, is there enough instructional time, during a school year, before the computer-based testing begins to cover all the material in which the children in grades third through sixth are required to know to perform to his or her best ability?

4. From a teacher's perspective, are all his or her students benefiting academically using the Common Core State Standards and the computer-based testing?

Chapter 2

Literature Review

Our educational institutions are becoming standardized due to high- stakes standardized testing, which are used as the measuring tool for children's academic abilities, for the quality of education children receive from teachers and from school districts. The goal of high- stakes standardized tests is to ensure that every child is receiving an equal education, and that children upon high school graduation will be prepared for a competitive global economy. For this equal education to take place, all children, future college students, and higher educational institutions who educate future teachers, along with future teachers, must be conformed or standardized in order to reach the federal standards which have been put into place (Wexler, 2014).

One of the most important concepts being overlooked when creating a high-stakes standardized test, is the child and how children learn and develop. For hundreds of years studies and research have been conducted and have proven that children learn differently and go through different developmental stages at different rates (Crain, 2011). Furthermore, most of the research has shown that children have an intrinsic clock in which human development and learning takes place. A child will learn how to crawl, pull one's self up, and how to walk with very little assistance if any at all from adults, but rather through the natural ability which comes from within the child, and through exploring one's environment (Crain, 2011). Unfortunately, our society has made a competition from children's development. Parents will often compare the development of his or her child to other children, creating an unnecessary stress for both parents and children. Children need to be able to learn at his or her own pace through

developmentally appropriate activities and learning materials with the assistance of caregivers and teachers (Crain, 2011).

Historical Perspective from Human Development Theorists

Learner-centered education was developed from the concepts which existed in the 4th and 5th centuries B.C. During this time Confucius and Socrates focused on the learner. Almost two millennia later, John Locke introduced experimental education (Henson, 2003). John Locke (2003), believed that an individual learns through experiences. Jean Rousseau believed more in the natural child-centered, and experience-based learning (Henson, 2003). Through both of Locke's and Rousseau theories, Johann Pestalozzi opened a school in Switzerland using the learner-centered curriculum. Pestalozzi believed, "that the whole child should be educated; physically, mentally, and emotionally, and should be nourished like a plant while he or she learned by doing" (Henson, 2003, p.8).

Theorist Jean Piaget in the 1920's was given an assignment to construct an intelligence assessment for children while working in the Binet Laboratory in Paris. According to Crain (2011), Piaget had no interest in scoring children's right or wrong answers: however, he found the wrong answers of the younger children to be intriguing. Piaget decided to abandon standardized testing which he viewed as, "forcing children to respond into artificial channels of set questions and answers" (as cited in Crain, 2011, p. 119). Piaget decided to create a different type of assessment which included an open-ended interview, "which encourages the flow of spontaneous tendencies" (as cited in Crain, 2011, p. 119). Piaget's research was focused on the cognitive-developmental process of children ages 4 to 12. Piaget (2003), found that children under the age of 7

think more qualitatively; where his or her thinking is more in depth and creative. At these ages children, do not just look for a right or wrong way to do things or to problem solve, the thinking process is endless, therefore there could be numerous different ways to perform a task (Crain, 2011). After the birth of his children, Piaget (2011), focused on the different stages of cognitive development from infancy to adolescent years. Through continued research, Piaget (2011), believed in, "an active construction process, in which children through their own activities, build increasingly differentiated and comprehensive cognitive structures" (Crain, 2011, p. 121).

The first world's kindergarten was created by using all three ideas; learner-centered, child-centered, and experienced-based, the kindergarten was developed in Germany by Friedrick Froebel (Henson, 2003). Colonel Francis Parker was the first learner-centered teacher in America. Parker taught teachers in Quincy, Massachusetts how to teach learner-centered techniques. Parker replaced drill teaching with inquiry activities and replaced memorizing facts to understanding the facts. The learner-centered education became advanced by the Progressive Education Association, which was developed in 1919. The learner-centered education was a huge success until the United States became active in World War II, up until this point, the progressive movement flourished (Henson, 2003).

The launching of the Sputnik by the Russian's made critics question the learner-centered education, they felt this was the reason why Americans were falling behind in science (Turgut, 2013). In 1958 the National Defense Education Act was passed, "to promote knowledge in Science, Math and Foreign Languages" (Turgut, 2013, p. 65). In 1965, President Johnson passed The Elementary and Secondary Education Act, as part of

his War on Poverty, in effort to help with equality within the educational systems, this Act was renamed the, *No Child Left Behind Act*, NCLB in 2002 under the George W. Bush Administration (Wexler, 2014). Using federal funding from NCLB to implement the Common Core State Standards, as part of the Race to the Top, RTTT, and the Obama Administration, "has a blueprint for a re-envisioned federal role in education" (Wexler, 2014, p. 53).

Education Reforms

In this fast paced and competitive world in which countries are all striving to be better than each other, and competing against each other in a very competitive global economy, has created an issue within our educational institutions. This issue has been growing over the years. How do we as Americans keep up with the rest of the world in terms of education and at what expense? Americans are always trying to improve the education of its children in order to keep up, and the answer always seems to be school reform. Unfortunately, young Americans often get lost in this process, or cheated out of a meaningful education.

Americans want the future leaders to be competitive with the rest of the world. Unfortunately, not all American children are receiving the best educations. There are 957 school districts in the state of Illinois alone, and in some districts the schools have enough money to provide for thousands of students, and then there are the school districts which are barely staying open (Nielsen, Sanders, Ashby, & Haeffele- Curry, 2002). Low-income families who are usually living in lower income neighborhoods attain less education than children from more advantaged families who live in middle to upper class neighborhoods (Rouse & Barrow, 2006).

According to Kozol (1991), schools in Illinois are mainly funded through property tax funds, federal funded grants, and money from the state if the school qualifies, which is determined by the academic performance of the students who attend the school. Unfortunately, schools within the same district receive different amounts of funding, because some neighborhoods are bringing in more money from property taxes than others (Kozol, 1991). Unfortunately, this has created a huge educational gap between the advantaged and the disadvantaged children. An example of one of those educational gaps is some of the poorest schools have kindergarten students coming to school who are three years delayed (Kozol, 1991).

High-stakes standardized testing has become the focus on who is considered highly qualified, or who exceeds beyond the average overall state score. Standardized testing, is a test which is given by all states to children in the grades third through eighth and again in the eleventh grade once a year (Procon.org, 2016). The intent behind standardized tests are to measure the student's academic ability compared to other students in the same grade across the state, and in other countries. Standardized tests have become known as high-stakes tests, where decisions are made based on the test scores, and accountability lies with the teachers, school districts, administrators, and often with the students (Wexler, 2014).

America's children are its future, and what we teach them, and what they take with them when they leave school will determine what their future holds for them. Therefore, it is up to the schools' administration and those responsible for implementing the educational curriculum to students to make sure that all students are receiving the best quality of education offered. Furthermore, it is also the responsibility of these individuals

and duty to ensure that every student's progress is assessed where the tests that are being administered are developmentally appropriate. Furthermore, it is also important that the high-stakes standardized test are compatible with the curriculum that is provided to the students. Parents need to be aware of how their children are being assessed and if the tests that are administered to their children are beneficial or not.

Standardized tests measure how well a student is performing. How well the student does or does not do on the test reflects on the school and the districts performance. According to the Chicago Tribune, (2000), "Illinois currently uses standardized testing to rate schools" (Brauer, 2000). Parents might question, how does one test which is administered once a year, determine the overall performance or progress of students and a district? It clearly is not about whether a state should implement achievement tests, but rather making sure the tests are beneficial to the students and to the schools. One of the concerns is how accurate are the standardized tests that are administered only once a year, and how can students and a school district be judged on their performance by a few short days of testing?

The Illinois Learning Standards document that was put into effect in 1997 clearly states areas of knowledge students should possess. The Illinois State Achievement tests (ISAT) which was the previous high-stakes standardized tests, (currently replaced by the Partnership for Assessment of Readiness for College and Careers, (PARRC) computer based high-stakes standardized test), which was given yearly, was based on the Illinois Learning Standards document. According to the Illinois Goal Assessment Program document, "after the Illinois Learning Standards document was put into effect the Illinois

Assessment Program was revised and became the Illinois State Achievement tests also known as the ISATS in 1999" (ISBE, 2016).

In 2001, the ISATS were revised again, and new stipulations were put into effect that went along with the No Child Left Behind Act (NCLB). The Adequate Yearly Report (AYP) has stipulations to go along with the ISATS as well. According to the AYP, "their goal by 2014 was to have all students meeting or exceeding standards in reading and math" (ISBE, 2016). This meant all students were to meet 100% in both reading and math or the school and school district would not meet the qualifications. Terry Diss, former principal and teacher of Charleston School District stated, "If schools and districts do not meet the qualifications of the AYP the consequences could lead to termination of the administrators and teachers" (T. Diss, personal communications, June 8, 2011).

Within the first four years of the NCLB, the federal money for education had increased more than 40%. An article of the NCLB progress report stipulated that, "this new and revised plan was one of the federal government's costliest and ambitious educational ventures" (Thomas, 2005). With the money that was spent by the federal government to improve schools and districts, so that all students would meet or exceed did not eliminate the problems that were wrong with the standardized tests. Unfortunately, there was not enough money being spent by the government to make the changes necessary. The funding received from the federal government was not an adequate amount to meet the needs of the NCLB mandate (Thomas, 2005).

Teaching to the Test

The ISATS were created with the intentions of coinciding with the curriculum. However, not all curriculum subjects were being tested, the tests focused on Reading, Math and Language Arts. Therefore, teachers concentrate on the areas where the students are tested. Due to the focus toward Reading, Math and Language Arts subjects such as Social Studies, Science and other special areas are not focused on as much and only taught where there is time. Beginning in 2014, standardized testing was shifted from each individual state to the federal level, where all states administer the same test. The implementation of standardized tests has changed as well, the tests have gone from filling in bubbles on a paper form test, to computer-based testing (Strauss, 2014). The schools who score better on standardized state tests receive more grant money for the schools (Nelson, McMahan & Torres, 2012). This has encouraged teachers who teach in the disadvantaged schools, to teach the test, which means the teachers only cover material which will be on the standardized tests. The goal of this would be to ensure that the students will score high enough to qualify for state money. However, the state funding is not equally distributed across the state of Illinois (Nielsen, Sanders, Ashby & Haeffele Curry, 2002). In disadvantaged schools the funding is needed to help with heat, lighting, plaster repairs where it is falling off the walls, holes in ceilings where buckets are used to catch the rain, updated teaching material and supplies, and teachers for some of the classes (Ashby, Haeffele Curry, Nielsen & Sanders, 2002; Kozol, 1991).

However, it is not just the teachers in the disadvantaged schools who are teaching to the test. Studies have shown since the NCLB high-stakes testing began, and with schools trying to meet the AYP, numerous schools are teaching the test, and reducing curriculum subjects which are not tested. Some states have found that teachers and

schools have cheated (changed the students answers) on the high-stakes standardized tests in order to meet the NCLB requirements (Musoleno &White, 2010). One study in particular estimated that 4-5% of elementary school classroom teachers in Chicago, Illinois cheat on high-stakes standardized testing. Research has also shown that administrators will re-classify low-achieving students as children with learning disabilities so the low scores will not be included in the AYP, in order to help with meeting requirements to receive funding for schools (Rouse & Barrow, 2006).

High-stakes standardized testing has not only increased educational gaps, but the expectations of the students' performance on the tests has instilled a sense of desperation from teachers to make sure the performance of his or her students is one in which the students will perform well enough to meet AYP, to receive grant funding. Unfortunately, high-stakes standardized testing is geared towards more of the upper middle to middle class students; therefore, the testing is considered to be a form of discursive control. The reference to high-stakes standardized tests as a form of discursive control is referring to, certain student's voices, experiences, cultures, and diversities which are removed or not seen as important within the curriculum due to the fact that not all student's identities are focused on, because the high-stakes standardized tests only test certain identities (Au, 2009). Therefore, certain students' identities (diversity, ethnicity, and culture), will be either accepted or rejected through the inclusion of certain student identities within the curriculum. Studies have shown that multicultural material is not being used in the classroom curriculum, because this content does not exist on the test (Au, 2009). The standardization of knowledge through the curriculum which is considered to be acceptable for children to learn, is determined by the high-stakes standardized tests itself,

and what is considered legitimate or not within the classroom content (Au, 2009). Therefore, schools are forced to adopt a basic, standardized, and non- multicultural curriculum because of high-stakes tests. This discursive control is standardizing American children, and is a form of controlling what is allowed to be learned and what is not allowed to be learned. Furthermore, "high-stakes tests may be understood as hegemonic devices which are uses by dominant elites to determine who is and who is not a part of the dominant discourse" (Au, 2009, p. 67).

Business Leaders Making Decisions within the Educational Institutions

In 1983, U.S. officials, educators, and societies were alarmed by a report which considered the United States to be a Nation at Risk (NAR). The contribution of the NAR reform was to include businessmen in educational decisions. Some individuals believed that business leaders could run educational institutions better than educators. Today, the increase of businessmen and women making school reform decisions has increased and continues to do so. Therefore, as the increasing involvement of the federal government and business leaders grew in the educational institutions, so did the focus on high-stakes standardized testing (Turgut, 2013).

The creators of the new Common Core State Standards (CCSS), are not current educators, however few are former teachers who taught at high school level not at the elementary level, and the majority of the writers are businessmen and women who have never taught in a classroom. The CCSS are funded by some of the richest private foundations in the United States, the main financial backer were Bill and Melinda Gates Foundation and the Board Foundation (Wexler, 2014). The National Governors Association Center for Best Practices, the Council of Chief State School Officers, and the

U.S. Department of Education are some of the federal agencies which back the CCSS (Wexler, 2014). The growing involvement of the Government and business leaders creating standards for the United States educational institutions creates an issue and concern of whether or not these particular individuals are really qualified to set educational standards. Individuals who are educators, with whom have a specific education geared towards working with children would have a better perspective on what standards would be developmentally appropriate and more beneficial to ensure all students are receiving an equal education.

Those who are successful in business and the global economy, began with an educational foundation, where each year of learning contributed to the next. Individuals cannot learn by going from A to Z, and skipping all of the middle. This concept would be like building a house on a glass foundation, without the walls, and then placing the roof on, obviously the house is not only incomplete, but has no purpose. Our educational institutions must have a purpose and the education which is implemented must be age appropriate and focus on each child's learning and developmental ability in order to narrow the gaps which exist (Robinson, 2013).

Standardizing Children, Future Teachers and Educational Institutions

Unfortunately, with the RTTT, along with the implementation of the new CCSS, not only is the diversity of children being ignored, but the diversity among new teachers as well. With the new CCSS reform, teachers are still held accountable for his or her student's outcomes on high-stake standardized tests, therefore to ensure that teachers are highly qualified, the new teacher certification has been reformed and called the edTPA, (Teacher Performance Assessment) which also follows the top-down, corporate method

which disrupts the expertise and sovereignty of universities with education programs. "higher education teacher certification programs will be required to teach to the test, readying candidates to be judged by data, driven by the Pearson Corporation's tests" (Wexler, 2014, p.55).

One of the most important duties as a teacher is to know his or her students, their behaviors at school and at home as well. A good teacher is aware if a student's performance has changed and takes the time to find out why. For example, if a student is going through a rough time at home due to a parent losing a job, a death in the family, or marital problems, teachers will often be in tune with the change in behavior with the child, hence knowing why the student is not performing at his or her best ability (Crain, 2011).

A teacher's personality cannot be tested to see if he or she has a highly qualified personality, along with empathy, good listening skills and communication skills, which are necessary qualities and skills in which one who is working with children should display. Teachers also know what a student has retained and comprehended from the coursework. Most teachers administer classroom assessments, to determine students reading levels, and a chapter quiz or test might be given to determine what students have actually comprehended. Regardless, the teacher assesses almost daily how his or her students are doing overall. "The ISATS are just one piece of the puzzle, there needs to be more information to determine how well a student is succeeding" (T. Diss, personal communication, June 8, 2011).

The NCLB and RTTT, have created huge gaps within the educational institutions, especially for those who live in urban areas. A few of the educational gaps which exist

for those who live in disadvantaged neighborhoods, where schools have not received enough money to hire better teachers, or replace and update learning materials and technology, have created an unequal education for the students who attend these schools (Kozol, 1991). Therefore, not only are these students behind due to outdated material and limited technology, but the education in which the students receive is not as enriched as the students who attend the schools which are located in the more advantaged neighborhoods.

These educational gaps have been obvious for years, hence reforms seem to be the answer and the focus of the reforms are put towards higher standards. The research which has been conducted through studies, and which has shown that the higher standards, and more high-stakes standardized testing is clearly not working, continue to be used as a measuring tool to determine who is highly qualified and who is not. Currently the American College Testing, (ACT) which is given to high school students during their junior year has shown lower scores; therefore, the ACT was redesigned for the spring of 2015, to better coincide with the CCSS (ACT, 2016). The ACT has been changed again for the 2016 test, "the test will continue to report English, Math, Reading, and Science scores, however sub scores such as Rhetoric skills and Art/Literature, will no longer be reported, but rather be replaced with a comprehensive set of reporting categories" (ACT, 2016). Therefore, this means the material on the ACT where students were stagnant or maintaining a level for the last three years, which was based on the NCLB curriculum and standards, are now required to take a test which currently was reformed to the RTTT, with the implementation of the new CCSS, which have been described as more rigorous than the NCLB (Wexler, 2014).

Developmentally Appropriate Curriculum

Diversity has become a threat within the educational institutions where high-stakes standardized testing exists, because it is contradictory to the process of standardization (Au, 2009). "Diversity is being subtracted from the curriculum because of high-stakes testing emphasis on standardization" (Au, 2009, p. 67). Furthermore, American children are to be conformed in order to meet the curriculum and state testing expectations (Robinson, 2013). NCLB stipulated that all children would be 100% proficient in both reading and math by 2014 (NCLB, 2001). The United States, which considers itself to be a melting pot since its establishment, should foster diversity and variety, instead of enforcing uniformity within the educational institutions (Turgot, 2013). Standardized testing cannot measure the "whole child" (Turgot, 2013, p. 69). A child's creativity, emotion, compassion, curiosity, and the natural intrinsic exploration in which children use to grow both cognitively and developmentally cannot be tested right or wrong (Turgot, 2013). Those who are creating the curriculum and the testing for children are forgetting one of the most important factors about children; diversity (Robinson, 2013).

Robinson (2013) explains diversity in terms which every parent can relate to, "there is not one of your children who is exactly the same as another" (Ted Talks, 2013). Children not only look different, but they act different, and learn differently. There are three principles in which life flourishes and humans have these qualities naturally; "diversity, curiosity, and creativity" (Robinson, 2013, Ted Talks). Standardized tests only measure a small portion of intelligence, and ignores the greater part of intelligence which cannot be measured by one answer. Therefore, an educational institution should focus on

the needs of each child to ensure that he or she is receiving the best education possible, and the testing process which measures the intelligence, or academic ability of a large variety of children should test a broad spectrum, rather than a narrow one.

Children, are naturally diverse, and learn differently. Some children are visual learners and need to see a process of learning the material through the use of pictures and demonstrations, some children are auditory learners, where just listening to the teacher helps him or her with comprehension of the material which is being taught, and then there are the children who learn better through kinesthetic or tactile, where learning is more productive for those students through actually doing, hands-on. Therefore, students need a diverse curriculum, one in which is developmentally appropriate, where all students can benefit academically (Robinson, 2013).

Instructional Time Spent on Preparing for Tests

Having a diverse curriculum not only intrigues children but the diversity brings out the natural curiosity and creativity in which all children have (Robinson, 2013). According to Robinson (2014), an individual's education needs to be a broad spectrum, although Math and Science are important, Arts, Humanities, and Physical Education are just as important to ensure a good quality education. Before the NCLB, during the Clinton Administration, Goals 2000, defined individual student success based on multiple criteria, "achieving a 90 percent graduation rate from high school, demonstrating competency over challenging subject matter, including English, Math, Science, Foreign Languages, Civics and Government, Economics, the Arts, History, and Geography" (Turgut, 2013, p. 67). Research has shown that teachers have to teach the test in order for the students to meet or exceed state expectations (Rothman & Henderson, 2011).

A nationwide survey was conducted using 349 school districts, out of those districts 62% reported an increase in instructional time spent on Math and English/language Arts in elementary school (Au, 2009). Another nationwide survey reported 71% of the school districts have cut at least one subject in order to focus more on Reading and Math (Au, 2009). Therefore, the instructional time which is spent preparing students for high-stakes testing has contributed to gaps within the educational experience. Preparing for testing has narrowed the education in which only those subjects that are on the test are focused on more, and other subjects are neglected (Musoleno & White, 2010).

One of the concerns in reducing certain subjects like Physical Education, is that studies have shown that students need physical activity in the curriculum (Ickovics, Carroll-Scott, Peters, Schwartz, Gilstao-Hayden, & McCaslin, 2014). Students need physical activity to help with concentration and with academic performance. Studies have shown that students perform better on tests when an activity takes place where students are active and the blood is flowing (Ickovics, 2014). By allowing students to move around during the day and participate in activities, the student's blood is flowing through the body and the brain, which will help the students perform better academically (Ickovics, 2014).

Other subjects which are being eliminated are Foreign Languages, which can be beneficial for students who are planning on going into a career and living in an area where different languages are spoken. In the United States Spanish is the most common fluently spoken language second to English language (U.S. Census, 2015). Other subjects which are cut especially for those students who are considered to be low-performing are

Science and Social Studies, allowing low-performing students more time to focus on subjects which will be tested (Au, 2009). This not only limits the education for low-performing students, but the emphasis of performing well on high-stakes standardized testing forces more pressure on students and creates unnecessary stress and anxiety (Segool, Carlson, Goforth, Von Der Embse & Barterian, 2013).

Increase in Anxiety for Both Students and Teachers

Studies have shown that the levels of anxiety increased in students when a classroom test is given, however "the levels of anxiety increase for both the teacher and the students when standardized tests are given" (Segool et al., 2013, p. 494). According to Segool et al., (2013), high-stake NCLB testing not only increased anxiety for teachers, but also contributed to an increase in stress, focus on test preparation, job stress, lowered motivation, and job satisfaction. Due to the accountability of the standardized testing, teachers and administrators fear the loss of jobs if test scores received are not high enough (Strauss, 2014).

The individual child is not looked at as far as age appropriate curriculum and performance, but rather the teacher's teaching ability, and the districts qualifications which are considered to be highly qualified. High-stake standardized testing has added to the anxiety and stress of both the teachers and the students. The importance of performing well on the standardized tests has created more stress and pressure on the teachers, which has contributed to teachers changing his or her instructional implementation to focus more on test preparation (Segool et al., 2013). The anxiety felt by the teacher may transfer to the student experiencing test anxiety (Segool et al., 2013).

Lower-achieving students feel more pressure to perform better on standardized tests, which contributes to more stress and anxiety (William, 2010). Research shows that more than 10 million students perform poorly on standardized tests than he or she should because an increase of anxiety interferes with his or her performance (Paris, Lawton, Turner & Roth, 1991). As these students go on to higher grades the anxiety will increase leading students to not only perform poorly on tests, but studies have shown due to the frustration, students begin to make designs or patterns such as a Christmas tree, or alternating letters on the tests, rather than answering the questions and filling in the correct bubble (Paris et al., 1991). Low-achieving students are not the only students who get test anxiety, high-achieving student do as well.

High-achieving students worry about performing well on the high-stakes tests, as the tests are an evaluation of his or her academic ability. Most high-achieving student's value making good grades, not wanting to disappoint teachers or his or her parents. The added pressure from performing well on high-stakes testing contributes to anxiety for these students (Paris et al., 1991). Mulvennon, Stegman and Ritter (2005) conducted a study in a school district, using nine different schools where the average pay scale was almost $4,000 higher than the state average, and the schools continued to see growth in both students and staff within a five-year period. Of the students who participated, 10% of the respondents received free and reduced lunch, and 5% of the students who participated were minorities (Mulvennon, Stegman & Ritter, 2005). The majority of the students who participated in the study indicated that the high-stakes standardized test did not create anxiety, rather the anxiety came from the pressure of the teachers and parents

to perform well on the tests. The study also showed that the majority of the teachers do not like the standardized testing process (Mulvennon, Stegman & Ritter, 2005).

Increased Drop-out Rates

Research has shown that some teachers believe if most the instructional time is spent on test preparation especially when it becomes all they do every day, the time in which it is spent preparing for testing is not effective, and creates a lack of interest from students towards the subject content. Furthermore, students begin to show little to no interest in the activities which are going on inside the school when everything in centered on passing the test (Nelson, McMahan & Torres, 2012). Therefore, the lack of interest which is occurring from students because of the intense standardized testing has contributed to an increase in drop-out rates, especially in the urban areas. The urban areas house most of the poor schools and test scores are very low (Wexler, 2014). With the high demand of increasing test scores, to qualify for federal funding, teachers have to teach the test (Rothman & Henderson, 2011). The school districts which are located in the urban areas, are mainly low-income, and non-white students. These districts are institutionalizing high-stakes testing pressures at greater rates than the high-income, predominately Caucasian students, "which is creating more restrictive, less enriching educational environments for the students in which the high-stake standardized test educational reforms like NCLB are supposed to be helping" (Au, 2009, p. 68).

A study by Nelson, McMahan and Torres (2012), focused on the effects of a comprehensive two-year community intervention partnership inside an urban high-risk junior high school to measure the impact on student attendance, the students themselves and the faculty, and the school climate. The school climate defined by the National

School Climate Center is the quality and character of a school, the educational experience, interpersonal relationships, and the organizational processes and structures within a school (NSCC, 2016). The study was a longitudinal design using survey questionnaires, open-ended questions, interviews, and focus groups. Both quantitative and qualitative data were used in the study. The sample included 758, 7th and 8th grade students from an urban junior high school, who were purposefully selected for the research of the intervention. There were two groups, an experimental group and a control group. Both groups had to come from the same type of school and be in the geographical area (Nelson, McMahan & Torres, 2012).

Therefore, both groups were from junior high schools located in the urban area, which was economically disadvantaged, and the minority rate was high. Of the 758 participants (52.5%) were male and (47.5%) were female. Ethnicity of the participants were Hispanics (51%), followed by African-Americans (32.2%), Caucasians (11.4%), Asian/Pacific Islanders (4.8%), and American-Indian/Alaska Natives (0.3%) The data was collected over a two-year period. The first year of intervention showed positive changes within the school climate. However, the second year dropped, showing negative changes within the school climate, due to a change within the administration with whom focused more on preparing for standardized testing (Nelson, McMahan & Torres, 2012). A follow-up was conducted at the end of the third year, the result of the new administration and the focus on testing rather than improving the school climate led to an increase in drop-out rates, and more negative attitudes toward optimism, school climate, responsibility, social support, and self- efficacy (Nelson, McMahan & Torres, 2012).

Most of the schools located in the urban areas qualify for tutoring programs because they have not met the AYP (Wexler, 2014). "If the school has Title 1 funding and does not meet AYP for three or more years, funding is provided for tutoring or some form of program to help assist students to perform better on the tests, in 2005-2006 over half of the schools with Title 1 qualified" (Rothman & Henderson, 2011, p 1). Those numbers have since increased, "almost half of the nation's schools did not meet AYP in 2012" (Wexler, 2014, p. 54).

The United States government has attempted to narrow the gaps within the educational systems by creating the Title 1 program which was intended to help close the gap between the advantaged and disadvantaged children and the schools in which he or she attends. Research has shown that schools who receive Title 1 compared to schools who do not receive Title 1 do not score better on high-stakes standardized tests (Baker & Johnston, 2010).

Impact of Socioeconomic Status of Parents and Neighborhoods towards Schools

Paul Piff, (2013) a social psychologist, conducted a study using the monopoly game to demonstrate and help individuals to understand how the United States, which is based on capitalism, run by a hierarchy society, where the wealthy are located at the top and low-income to poverty are on the bottom. Piff, (2013) divided a group of 100 pair of students into two groups, the rich and the poor. He rigged the monopoly game to give the rich students an advantage so they received twice the money, they could use two dice to move around the board quickly, and they were given twice the money when passing Go. During a 15-minute observation with hidden cameras, the rich students began to move the pieces around the board more loudly, they began to show signs and verbal expressions of

dominance, power, and celebration. The rich students also became rude and less sensitive towards the poor students, and began bragging about how well they were doing. The ideology of self-interest which Piff and his colleagues have studied shows that individuals who are at an advantage show less signs of empathy and compassion for those who are at a disadvantage. The wealthier an individual becomes, the more of an entitlement one feels (Piff, 2013).

Research has shown that socioeconomic status (SES) does make a difference in test scores, grade retention and high school graduation outcomes (Rouse &Barrow, 2006). Former President George W. Busch, enforced high-stakes standardized testing as a measurement tool for accountability within the educational institutions by signing the Elementary and Secondary Education Act in 2002 (Baker & Johnston, 2012). "Analyzed data from the National Assessment of Educational Progress (NAEP), found that increased high –stakes test scores do not equate to increased learning" (Baker & Johnston, 2012, p. 193). Further research showed that schools with high-stakes standardized testing policies compared to schools without high-stakes standardized testing policies had a lower percentage of students reaching reading proficiency. These findings have shown that lower-socioeconomic schools although the Title 1 program exists, is still not helping the students perform better on high-stakes standardized testing (Baker & Johnston, 2012).

As stated previously, diversity needs to be considered to help narrow gaps within the educational institutions. Diversity, covers such a broad spectrum including the SES, which exists from low-socioeconomic, middle socioeconomic, upper socioeconomic, to the wealthy, therefore, the diversity of SES needs to be considered. The high-stakes tests promote accountability, but it does not promote understanding the diversity in which

exists throughout the educational institutions. Students who come from low-socioeconomic homes and neighborhoods tend to have less support financially, academically, technologically, and encouragement from home (Baker & Johnston, 2010).

Distributing federal funding equally among schools within the same district as stated early would only break the tip of the iceberg. Not only does the SES within neighborhoods and schools need to be considered, but the SES backgrounds in which students come from. The SES of the families of the students' needs to be considered when teachers assign projects which require outside of school work. Most low SES children do not have the same resources as other middle SES students, therefore the lack of easily available resources, creates another educational gap between the disadvantaged students and the advantaged students.

Technology in the Schools

The first educational technology which was used by teachers were visual education and visual instruction, since everything was seen by the eyes. The films during this time were silent, and most of the educational objects were visuals, meaning the use of chalkboards, posters, and anything hands-on. The audiovisual was added to the educational technology when sound was added to films. The radio was the next educational technology which was used in the classrooms beginning in 1925 (Education, 2016). During the 1950's and 1960's instructional television was used as an educational technology in the classroom. It was during this time that the Ford Foundation and its other agencies donated over 170 million dollars to education television (Education, 2016). In the 1980's the computer was introduced to schools, and most schools had computer laboratories for use. In the year 2000, 97% of the schools in the United States

had internet (Education, 2016). By 2003, most classrooms had a smartboard, which connects to the internet and allows students to enjoy an interactive, hands-on-learning experience through technology.

Today computer laboratories are still used, however, the school libraries and classrooms have computers as well. Educational programs are used on the computers for individualized learning, which has been shown to be a great asset for those students who are lower-level learners (Education, 2016). However, the computer programs need to be age appropriate to help children succeed. Jean Piaget's cognitive development theory, discusses how children build from his or her own knowledge without being formally taught, but rather through exploring his or her environment (Crain, 2011).

Age appropriate computer programs can be a very useful educational tool for children to explore and learn through a micro world where the children are in control. "A micro world is a child-oriented computer experience, where children are in control, acting on software to make events happen rather than reacting to pre-determined questions and closed-ended problems" (Haugland & Shade, 1988, p. 37). One of the computer programs which was designed specifically for a three-year-old girl was referred to as the beach world, because this was the three year olds creation. Through interaction and redesigning the beach world she learned how to recognize words in the beach world, but she could also point out these words on paper (Haugland & Shade, 1988). Further research shows that micro worlds can also help young children witness processes and cause and effect relationships in which he or she may find more difficult to observe in other settings (Haugland & Shade, 1988).

Although computers can be an educational tool, not all students have access to a computer at home, or the means of getting to a public library to use one. Students who are low-income often times will not have a computer at home, or have the experience of using a computer compared to the more advantaged students. Therefore, the lack of experience and or the lack of the resources which are available to some children, are not available to all students, leaving an educational gap between the disadvantaged students and the advantaged students. Furthermore, not all schools can afford computers, and if they do have computers, the programs are so outdated from the lack of funds to update programs when needed. The schools which are in the rural areas still have dial up internet and cannot use the resources like the urban and city schools (Education, 2016). Therefore, further research needs to be conducted to determine if using technology in the schools is beneficial for all students or if the use of too much technology is going to create more educational gaps within the educational institutions.

Summary of Literature Review

In conclusion, school reform through higher standards and high-stakes standardized testing has been shown through research to increase educational gaps, rather than narrowing the gaps. The new Common Core State Standards have only been in effect since the summer of 2011, and research has already shown the standards are more rigorous than previous standards, yet all the K-12 schools, along with the college entrance exams, and the higher educational institutions who educate and prepare future teachers, along with the teacher certification test have all been changed to meet the new standards (Wexler, 2014).

The NCLB, proved to have left many children behind, created huge gaps within the education system, and increased drop-out rates (Robinson, 2013). All areas in school need to be focused on in order to obtain a broad educational experience and to further reach all students. The computer-based testing implementation to children who may not be ready both cognitively and physically, could create more inequality gaps among students, if the tests are not developmentally appropriate. Therefore, further research needs to be conducted on the developmentally appropriate implementation of both the CCSS and the PARCC.

Chapter 3

Methodology

The purpose of this study was to determine if the new Common Core State Standards curriculum and the computer-based standardized testing are developmentally appropriate for children in the grades third through sixth from a teacher's perspective. This study was designed to gather information from qualified and experienced individuals who were able to provide important insight about the developmentally appropriate implementation of both the curriculum and the computer-based testing for children in the grades third through sixth.

The study answered the following research questions:

1. How much instructional time during a school day do teachers feel he or she spends on preparing students for the computer-based standardized tests?

2. From a teacher's perspective, are the type written responses, which are required for the computer-based standardized testing, developmentally appropriate for children in the grades third through sixth?

3. From a teacher's perspective, is there enough instructional time during a school year, before the computer-based testing begins to cover all the material in which the children in grades third through sixth are required to know to perform to his or her best ability?

4. From a teacher's perspective, are all his or her students benefiting academically using the Common Core State Standards and the computer-based testing?

Research Hypotheses

Four hypotheses were developed and the importance of the hypotheses are briefly described.

Hypothesis 1: In order to better prepare students in grades third through sixth for computer-based testing, more instructional time during the school day would be effected to ensure successful outcomes for the test. The first hypothesis will examine the relationship between instructional time and successful outcomes from the computer-based tests.

Hypothesis 2: The effects of the developmentally appropriate keyboard use which is required for the computer-based standardized testing would be determined by the development of the child's motor skills. The second hypothesis will examine the relationship between the development of the students and the task of being required to type written responses for the computer-based testing.

Hypothesis 3: The required knowledge and comprehension for children grades third through sixth to perform at his or her best ability on the computer-based standardized testing would be effected by the time in which all of the material can be covered before the testing begins. The third hypothesis will examine the time allotted within a school year and the comprehension from the required curriculum for the students.

Hypothesis 4: The final outcome of the computer-based standardized tests scores would determine the effects of the developmentally appropriate implementation of the computer-based tests, and whether all students are benefiting academically. The final and fourth hypothesis will examine, the relationship between the overall

performance of the students and the developmentally appropriate implementation of the computer-based tests.

Design of the Study

The design of the study was a non-experimental, random, descriptive, and cross-sectional design using an online survey questionnaire to collect information focusing on developmentally appropriate implementation of both the Common Core State Standards curriculum and the computer-based standardized testing. The survey questionnaire asked both open-ended and closed-ended questions. Both qualitative and quantitative data was collected for this study.

Sample

The sample consisted of seven teachers who teach grades third through sixth in which the study focused on, and who are responsible for implementing the Common Core State Standards curriculum and administering the computer-based standardized tests among the school districts within the Regional Office of Education #11. The school districts were randomly selected by choosing every other school district from the list in which the researcher was given from the Regional Office of Education #11.

Instrumentation

The Flynn Developmentally Appropriate Computer-based standardized testing questionnaire (FlyDAC) which was developed based on existing research, (Ickovics, Carroll-Scott, Peters, Schwartz, Gilstao-Hayden,& McCaslin, 2014; Aydeniz & Southerland, 2012; Kozol, 1992; Musoleno & White, 2010; Mulvenon, Stegman & Ritter, 2005; Nelson, McMahan, & Torres, 2012; Robinson, 2013; Rothman & Henderson, 2011), and literature reviews pertaining to but not limited to standardized

testing (Au, 2009; Baker & Johnston, 2010; Brauer, 2002; Procon.org., 2016; National School Climate Center, 2016; Paris, Lawton, Turner, & Roth, 1991; Rouse, & Barrow, 2006; Segool, Carlson, Goforth, Von Der Embse, & Barterian, 2013; Strauss, 2014; Census Bureau., 2016; Wexler, 2014; William, 2010), human development (Crain, 2011; Haughland & Shade, 1988; Henson, 2003; Piff, 2013; Education., 2016), education reform, (Nielsen, Sanders, Ashby & Haeffele-Curry, 2002; Turgut, 2013), and educational policies (ACT. 2016; ISBE, 2016; PARCC, 2015). The questionnaire was viewed by three professors, and the feedback was used to revise the questionnaire (See Appendix A).

The survey was piloted by 8 teachers within the Charleston School District #1. After the survey had been piloted through a statistical research project, changes have been made to the survey questionnaire from the use of the feedback.

Procedure for Data Collection

The researcher was given approval from Eastern Illinois University Institutional Review Board. The FlyDAC questionnaire was sent out directly to the participant's personal school email which are listed on each school's homepage through an email using the Qualtrics program at Eastern Illinois University. There was a link which had a volunteer and an informative consent form explaining the confidentiality and privacy of the individuals who choose to participate in the survey. There was no tracking of IP addresses, and the participants were informed that the researcher was the only one who had access with a password log in. The email explained the reason for the questionnaire survey, the participants were told the information would only be used for the thesis, possible publications, and presentations. The participants were also told that the

information is anonymous. The email was sent out two weeks after the 2016-2017 school year began, a reminder was sent two weeks later, and one more follow up email two weeks after that. An incentive was offered to each participant with a separate email for the drawing of a $25.00 gift certificate to Starbucks. The data collected was put into SPSS for analysis.

Data Analyses

Descriptive statistics were computed on all the demographics including, gender, years of teaching, and what grades are taught, and how many students each teacher has. To answer research question number one, which asks how much instructional time during a school day do teachers feel he or she spends on preparing students for the computer-based standardized tests, will be answered with question number 7, the mean and standard deviation were calculated. To answer research question number two, which asked if teachers feel that the type written responses which are required for the computer-based standardized test are developmentally appropriate for students grades third through sixth, were answered with questions number 5 and number 6, the mean and standard deviation were reported for question number 5, and question number 6 was categorized by the most constant reasons. The third research question which asked if teachers feel there is enough time during a school year before the computer-based testing begins to cover all of the material in which students third grade through sixth grade are required to know in order to perform to his or her best ability, was answered with questions number 16,17, 18, and 19, the percentages were reported of yes and no answers for question number 16, and the answers to question number 17 were categorized based on constant reasons, the mean and standard deviation were reported for question number 18, and for

question number 19 the answers were categorized by constant reasons. The last research question number four which asked if teachers feel that all students are benefiting academically through the use of the Common Core State Standards and the computer-based testing, was answered with questions number 21, 22, and 23, the answers were categorized based on constant answers and the percentages were calculated.

For the qualitative data, a constant comparative analysis was conducted with the assistance of one of the thesis committee members to ensure that any bias from the researcher did not interfere with the proper data collection. The first question from the survey which required a constant comparative analysis in order to answer research question two, which asked if teachers feel that the type written responses which are required for the computer-based tests are developmentally appropriate for students in grades third through sixth, was answered by question number 6 where teachers were asked to explain his or her answer to question number 5 on the questionnaire. The next question which required a constant comparative analysis in order to answer research question three, which asked if teachers feel there is enough time during a school year before the computer-based testing begins to cover all of the material which students in the third through sixth grades are required to know in order to perform at his or her best ability, was answered by questions 17 and 19, which both asked the participant to explain his or her answer from questions 16 and 18. Questions number 21, 22 and 23 on the questionnaire required a constant comparative analysis which answered research question four, which asked if teacher's feel that all students are benefiting academically through the use of the Common Core State Standards curriculum and the computer-based testing.

The remaining questions on the questionnaire numbers 20, 24-28 required a constant comparative analysis.

Chapter Four

Results

The purpose of this study was to determine if the new Common Core State Standards and the computer-based standardized testing are developmentally appropriate for children in the grades third through sixth from a teacher's perspective.

The research questions were as follows.

1. How much instructional time during a school day do teachers feel he or she spends on preparing students for the computer-based standardized tests?
2. From a teacher's perspective, are the type written responses which are required for the computer-based standardized testing developmentally appropriate for children in the grades third through sixth?
3. From a teacher's perspective, is there enough instructional time during a school year before the computer-based testing begins to cover all the material in which the children in grades third through sixth are required to know to perform to his or her best ability?
4. From a teacher's perspective, are all his or her students benefiting academically using the Common Core State Standards curriculum and the computer-based testing?

Sample

The sample was comprised of seven elementary school teachers who teach grades third through sixth. Of the seven participants, 14.3% (n = 1) teaches third grade, followed by 42.9% (n = 3) fourth grade, 14.3% (n = 1) fifth grade, and 28.6% (n = 2) sixth grade. The percentages of years teaching by the participants were 6 years 1.3% (n = 1), followed

by 7 years 14.3% (n = 1), 14 years 14.3& (n = 1), 19 years 28.6% (n = 2), 21 years 14.3% (n = 1), and 23 years 14.3% (n = 1). Of the seven participants 85.7% (n = 6) identified themselves as female, 14.3% (n=1) as male. Table 1 illustrates the percentages of the participants.

Table 1
Demographics of Participants (frequencies and percentages)

Variables	Frequencies (n)	Percentages (%)
Gender		
Male	1	14.3
Female	6	85.7
Total	7	100.0
Grades taught		
Third grade	1	14.3
Fourth grade	2	28.5
Fifth grade	3	42.9
Sixth grade	1	14.3
Total	7	100.0
Years teaching		
Six years	1	14.3
Seven years	1	14.3
14 years	1	14.3
19 years	2	28.5
21 years	1	14.3
23 years	1	14.3
Total	7	100.0

Percentages based on seven participants.

Instrumentation

Data were collected using The Flynn Developmentally Appropriate Computer-based standardized testing questionnaire (FlyDAC) (Appendix A),which was developed based on existing research, (Ickovics, Carroll-Scott, Peters, Schwartz, Gilstao-Hayden, & McCaslin, 2014; Aydeniz & Southerland, 2012; Kozol, 1992; Musoleno & White, 2010; Mulvenon, Stegman & Ritter, 2005; Nelson, McMahan, & Torres, 2012; Robinson, 2013; Rothman & Henderson, 2011), and literature reviews pertaining to but not limited

to standardized testing (Au, 2009; Baker & Johnston, 2010; Brauer, 2002; Procon.org., 2016; National School Climate Center, 2016; Paris, Lawton, Turner, & Roth, 1991; Rouse, & Barrow, 2006; Segool, Carlson, Goforth, Von Der Embse, & Barterian, 2013; Strauss, 2014; Census Bureau., 2016; Wexler, 2014; William, 2010), human development (Crain, 2011; Haughland & Shade, 1988; Henson, 2003; Piff, 2013; Education., 2016), education reform, (Nielsen, Sanders, Ashby & Haeffele-Curry, 2002; Turgut, 2013), and educational policies (ACT. 2016; ISBE, 2016; PARCC, 2015). The questionnaire was viewed by three professors, and the feedback was used to revise the questionnaire. The questionnaire consisted of twenty-eight questions, twelve of which were quantitative, and sixteen were qualitative.

Data Analysis

The design of the study required a two-part process for both quantitative and qualitative data. Data frequencies were analyzed through Qualtrics, then exported to SPSS where descriptive statistics were computed on demographic data. SPSS was also used for further analysis which was computed for the qualitative data using percentages based on the participant's answers through the process of constant comparative analysis.

Quantitative Analysis Data

Of the seven participants, he or she indicated the percent of instructional time during a school day spent preparing students for the test, (n = 1) 25% of instructional time, followed by (n = 3) 50%, (n = 2) 75%, and (n = 1) 100%, which was the first research question. Table 2 illustrates the respondents' percentages.

Table 2

Responses from teachers indicating the percent of instructional time in a school day preparing students for computer-based testing (frequencies and percentages)

Variables	Frequencies (n)	Percentages (%)
Instructional time		
25%	1	14.3
50%	3	42.9
75%	2	28.5
100%	1	14.3
Total	7	100.0

Teachers were asked how much instructional time during a school day is spent preparing students for computer-based testing. Teachers answered by indicating the percentage of instructional time in a school day, by choosing between 25% and 100%.

Research question number two asked if type written responses were developmentally appropriate for students in the grades third through sixth. Using a Likert Scale 1 indicating the least developmentally appropriate and 5 indicating the most developmentally appropriate, the $M = 2.17$ ($SD = .488$). The participants were asked to explain his or her answer to question number 5 from listing reasons in question number 6 from the questionnaire. The qualitative data was grouped by common and repetitive responses and then categorized. The responses were then categorized. The constant comparative analysis was then calculated and analyzed using percentages. Table 3 illustrates the percentages and the mean from the participants.

Table 3

Teachers' responses to developmentally appropriate computer-based testing (frequencies and percentages)

Variables	Frequencies (n)	Percentages (%)
Developmentally appropriate computer-based testing		
Least	0	0
Slightly	2	28.6
Moderately	5	71.4
More	0	0
Most	0	0
Total	7	100.00

Using a Likert scale teachers rated how developmentally appropriate computer-based testing is for his or her students. The scale: 1 = Least developmentally appropriate to 5 = Most developmentally appropriate.

The participants were asked in question 9 on the survey to indicate how many instructional minutes were spent on computers using keyboards. To answer this question the participants chose the minutes between 15 and 60. Out of the seven participants, the indicated minutes of instructional time spent in a week; (n =5) 30 minutes, followed by (n = 1) 45 minutes, and (n = 1) 60 minutes. The participants were then asked in question 10 using a Likert Scale to rate students' developmental readiness to type written responses, using the computer keyboards.1 indicating not ready at all. And 4 indicating very ready. Participants indicated; (n = 1) not ready, (n = 4) somewhat ready, and (n = 2) ready. The participants were asked to explain his or her answer to question number 10 by listing reasons in question number 11 from the questionnaire. The qualitative data was grouped by common and repetitive responses and then categorized. The responses were then categorized. The constant comparative analysis was then calculated and analyzed using percentages. Table 4 illustrates the percentages of the participants. Table 5 illustrates the percentages and the mean.

Table 4

Instructional time in minutes spent on computers in a week (frequencies and percentages)

Variables	Frequencies (n)	Percentages (%)
Time spent on computers		
15 minutes	0	0.0
30 minutes	5	71.4
45 minutes	1	14.3
60 minutes	1	14.3
Total	7	100.0

Teachers indicated how many minutes of instructional time a week is spent on the computers, which was question number nine on the survey. Teachers were asked to indicate the minutes spent in a week, choosing from 15 minutes to 60 minutes.

Table 5

Teachers' responses to students' readiness to typed written responses (frequencies and percentages)

Variables	Frequencies (n)	Percentages (%)
Developmentally appropriate typed written responses		
Not ready	1	14.3
Somewhat	4	57.1
Ready	2	28.6
Very Ready	0	0
Total	7	100.00

Teachers were asked to rate students' readiness developmentally to typed written responses in question 10 on the survey using a Likert scale from 1 = not ready to 4 = very ready.

The third research question asked if there was enough instructional time during a school year before the computer-based testing began to cover all the material which is expected for the students to perform at his or her best ability. The participants which answered no, 85.7% (n = 6), and yes, 14.3% (n =1), to number 16 from the questionnaire were asked to specifically explain why he or she chose the answer to number 16. The participants were asked to explain his or her answer to question number 16 by listing reasons in question number 17 from the questionnaire. The qualitative data was grouped by common and repetitive responses and then categorized. The constant comparative

analysis was then calculated and analyzed using percentages. Using a Likert Scale 1 representing not ready at all and 4 representing very ready, the $M = 2.14$ ($SD = .378$). The participants were asked to explain his or her answer to question number 18 from listing reasons in question number 19 from the questionnaire. The qualitative data was grouped by common and repetitive responses and then categorized. The constant comparative analysis was then calculated and analyzed using percentages. Table 6 illustrates the frequencies, the percentages and the Mean of the participants' answer to students being prepared to perform at his or her best ability on the computer-based standardized tests.

Table 6

Teachers' responses to students' preparation to perform at his or her best ability (frequencies and percentages)

Variables	**Frequencies (n)**	**Percentages (%)**
Perform at best ability		
Not ready	0	0
Somewhat	6	85.7
Ready	1	14.3
Very Ready	0	0
Total	7	100.00

Teachers were asked to rate students' preparation to perform at his or her best ability on computer-based testing in question number 18 on the survey using a Likert scale from 1 = not ready to 4 = very ready.

The seven participants were asked if he or she felt that all his or her students were benefiting academically from the Common Core State Standards which have been put in place for teachers to implement to his or her students. Of the seven participants 71.4% (n = 5) answered no, and 28.6% (n = 2) answered yes. The participants were then asked to explain the answer in questions number 21, 22, and 23, on the questionnaire by listing reasons in questions number 21, 22, and 23, from the questionnaire. The qualitative data was grouped by common and repetitive responses and then categorized. The constant

comparative analysis was then calculated and analyzed using percentages. Table 7 illustrates the percentages of the participants.

Table 7
All students benefit academically from CCSS (frequencies and percentages)

Variables	Frequencies (n)	Percentages (%)
All students benefit academically		
No	5	71.4
Yes	2	28.6
Total	7	100.0

Participants were asked if all students benefit academically from the use of the Common Core State Standards by indicating no or yes.

Qualitative Analysis Data

The questionnaire had several open-ended questions for the participants to explain or elaborate, using his or her expertise and experience as teachers to contribute further to the study by providing qualitative data. The qualitative questions further addressed the research questions. Question number 6 on the questionnaire asked the participants to elaborate on question number 5 on the questionnaire which asked the participants to rate the computer-based standardized testing, using a Likert Scale with 1indicating the least developmentally appropriate and 5 indicating the most developmentally appropriate. Questions number 5 and 6 on the questionnaire answered research question number two. The qualitative responses were grouped by common and repetitive responses and then categorized. The constant comparative analysis was then calculated and analyzed using percentages. The analysis shows that 71.4% (n = 5), participants reported students do not have enough experience on the keyboards. Further analysis shows 71.4% (n = 5), participants reported students are not proficient in typing. In addition, 42.9 % (n = 3), participants reported that students just click in order to be finished with the test. Table 1 illustrates the categories and the percentages from the participants.

Table 1

Teachers' responses towards computer-based testing (frequencies and percentages)

Variables	Frequencies (n)	Percentages (%)
Lack of skills	5	71.4
Not Proficient in typing	5	71.4
Not enough access to computers	2	28.5
Creates discouragement and frustration	2	28.5
To many steps per problem	4	57.1
Just click to be done	3	42.9
Students experiment with features	3	42.9
Not an accurate tool for measuring students' academic abilities	7	100.0
Students who have an IEP		
Test is above developmental ability	7	100.0

Teachers listed reasons why he or she rated question number five on the survey. "How would you rate the new computer-based standardized testing for your students?"
Teachers responses for question 14 on the survey, "In your professional opinion, do you feel the computer-based standardized testing is developmentally appropriate for your students who have an IEP?" Question 22 on the survey, "In your professional opinion do you feel the PARCC standardized tests results are an accurate measurement of assessing your students' academic abilities?"

Questions number 17 on the questionnaire asked participants to explain his or her answer to question number 16 on the questionnaire, which helps to answer research question number three. Of the seven participants 85.7% (n = 6), responded no, and 14.3% (n =1), responded yes, to question number 16 on the questionnaire, which asked if he or she felt there was enough instructional time in a school year to prepare students to perform at his or best ability on the computer-based standardized tests. The qualitative responses were grouped by common and repetitive responses and then categorized. The constant comparative analysis was then calculated and analyzed using percentages. The analysis shows 71.4% (n = 5), respondents reported there is not enough instructional time to master skills before moving on to the next skill. Further analysis shows 57.1% (n = 4),

respondents reported there is not enough time to cover all of the standards. Questions number 18 and 19 on the questionnaire also help to answer research question number 3. The participants were asked in question number 19 on the questionnaire to explain why he or she chose the answer to question number 18, which asked, using a Likert Scale to rate how well prepared the students are, and if he or she will be able to perform at his or her best academic ability when the tests are implemented, with 1 being not at all, and 4 being very ready the $M = 2.14$ ($SD = .378$). The qualitative responses were grouped by common and repetitive responses and then categorized. The constant comparative analysis was then calculated and analyzed using percentages. The analysis shows 57.1% (n = 4) of the respondents reported the standards are too rigorous, and there is not enough repetition for grasping concepts. Table 2 illustrates the categories and percentages from the participants.

Table 2

Instructional time to prepare students to perform at his or her best ability (frequencies and percentages)

Variable	Frequencies (n)	Percentages (%)
Enough instructional time		
No	6	85.7
Yes	1	14.3
Total	7	100.0
Not enough time to cover all standards	4	57.1
Standards are too rigorous	4	57.1
Not enough repetition to grasp concepts	4	57.1
Not enough to master skills before moving onto the next	5	71.4

Participants were asked if there was enough instructional time to cover all standards before testing begins. The frequencies of yes and no are given in percentages. The participants were then asked to list why he or she answered yes or no. The constant comparative analysis with categories are listed with percentages from the participants.

Questions number 21, 22, and 23 specifically asked the participants to elaborate using his or her expertise and experience as teachers who teach grades third through sixth, and who are responsible for implementing both the CCSS and the computer -based standardized tests. Question number 21 on the questionnaire asked participants if he or she feels that all the students are benefiting academically using the CCSS. Of the seven participants 71.4% (n = 5), reported no, and 28.6% (n = 2), reported yes. Participants where then asked to elaborated on his or her answer. The qualitative responses were grouped by common and repetitive responses and then categorized. The constant comparative analysis was then calculated and analyzed using percentages. The analysis shows 85.7% (n = 6), did not elaborate, 14.3% (n = 1), indicated the math has become too difficult for students who are lower level readers due to all the story problems aligned with the CCSS. Question number 22 on the questionnaire asked participants if he or she feels the computer-based standardized tests are an accurate measurement of assessing students' academic ability. The analysis shows 100% (n = 7), reported no. The qualitative responses were grouped by common and repetitive responses and then categorized. The constant comparative analysis was then calculated and analyzed using percentages. The analysis shows 100% (n = 7), reported the computer-based standardized testing was above development levels for students having an IEP. In addition, 28.6%, reported students often get kicked off the computer and are unable to finish the test. Question number 23 on the questionnaire asked participants if the instructional time is enough to cover all of the content which will be tested on the computer-based standardized test is a sufficient amount of time, 85.7% ($N = 6$) reported no, and 14.3% ($N = 1$), reported yes. The qualitative responses were grouped by common and repetitive responses and then

categorized. The constant comparative analysis was then calculated and analyzed using percentages. Analysis shows 14.3% (n = 1), indicated students learn at different rates. Analysis also shows 28.6% (n = 2), reported students are not exposed to all the standards before being tested on them. Table 3 illustrates the categories and percentages from the participants.

Table 3
All students benefit academically using Common Core State Standards (frequencies and percentages)

Variables	Frequencies (n)	Percentages (%)
All students benefit academically		28.6
No	5	71.4
Yes	2	28.6
Total	7	100.0
Standards are good	2	28.6
Standards are well rounded	2	28.6
Encourages teachers to teach concepts in different ways	4	57.1
To many standards	6	87.5
Not enough instructional time for depth and mastery	6	87.5
Students learn at different rates	1	14.3
Not exposed to all standards before testing	2	28.6

Participants were asked specifically if all students benefit academically from the use of Common Core State Standards. The frequencies of yes and no are given in percentages. The participants were then asked to list why he or she answered yes or no. The constant comparative analysis with categories are listed with percentages from the participants.

Questions number 24, 25, 26, 27, and 28 specifically asked participants if he or she could make changes to the CCSS and computer-based standardized testing, what would he or she change, or not change. The qualitative responses were grouped by common and repetitive responses and then categorized. The constant comparative

analysis was then calculated and analyzed and contributed to the specific themes which were found when conducting the constant comparative analysis; developmentally appropriate standards, the use of keyboards as a tool to write responses, and teachers not knowing what is on the computer-based standardized tests,

Developmentally Appropriate Standards. Data revealed that participants feel there needs to be more input from highly effective teachers who are experts in the grades third through sixth. Participants overwhelming reported there needs to be fewer standards to cover them all in the instructional time which is provided. Participants also agreed that the standards are rigorous and there needs to be more time for repetition before moving on to another skill. One participant reported, "We've been using a CCSS-aligned math program. In the past, if students were struggling in reading, they could still be good in math. Due to the number of word problems in each math lesson, that is no longer the case. As a result, these students experience very little success in reading or math. In addition, there is not enough repetition for students to solidify their learning. For example, we get to multiplication of double digit numbers in chapter 5. The homework has anywhere from 4 to 17 problems. Then after the chapter ends, double digit multiplication is not reviewed in other chapters. Some problems in subsequent chapters involve these, but we have to take extra time to reteach it because too much time has passed between the times that it was originally covered." Another participant responded similarly, "there needs to be more scope and sequence that is more cohesive from grade level to grade level with no gaps as students move from skill to skill."

Data also revealed the majority of the participants feel they are no longer able to teach using best practices to provide the best instruction for students. One participant

reported, "most of the standards are well grounded which I have no problem, however with too many standards to be taught in one year it's becoming a more cookie-cutter type education with little diversity." Another participant reported, "I have seen science and social studies all but eliminated in grades 4-5. Everything is focused on reading and math to do well on the tests. Things are not well-rounded in my opinion." Two of the participants viewed the standards differently reporting, "the standards as being good, it just depends on how they are being taught. The standards encourage teachers to teach concepts in more than one way, which allows different types of learners to grasp the concepts. Students also get to learn using all different kinds of media, not just text books."

Keyboards as a tool for written responses for students in the grades third through sixth. Analysis also revealed the theme of keyboards being used a tool for written responses for students in the grades third through sixth. An overwhelming response from the participants was the use of keyboards to type written responses was above the development level for students in the grades third through sixth. One participant reported, "keyboarding skills are not proficient enough to write a long written response, and students do not write all their capable of because of keyboarding difficulties." Another participant reported, "the idea of working on the computers for a test is attractive to my students; however, they are not proficient in typing and that affects their efficiency and time that it takes them to enter answers. In addition, they have been less inclined to reread or check their work if it's on the computer." One participant reported, "students have been typing on iPads for several years."

Teachers do not know what his or her students are being tested on. Analysis also revealed that teachers are not allowed to look at the computer-based test, therefore, leaving teachers in the dark as to what his or her students are being tested on. Furthermore, the results from the computer-based tests do not specifically show a teacher where his or her students are exceeding or not. One participant reported, "the information that is provided on PARCC results is not terribly helpful. There doesn't seem to be a lot of tangible results. For example, on the ISATs, the sections of the reading and math tests were broken down into their respective skills or standards, and we could see how many of the questions students answered correctly in each part. On the PARCC results, we just see that students are approaching, meeting, or exceeding broad areas."

Summary

The current study used a questionnaire to collect information regarding the developmentally appropriate implementation of both the new Common Core State Standards and the computer-based standardized testing. Overall, more than half of the participants feel both the Common Core State Standards and the computer-based standardized testing are above developmental levels for students in the grades third through sixth. However, there were a few of the participants who support the standards, there just needs to be fewer standards to cover them all within the amount of instructional time which is allotted. In the discussion, the researcher has applied each of the themes to further answer the stated research questions.

Chapter Five

Summary of Study

The purpose of this study was to determine if the new Common Core State Standards curriculum and the computer-based standardized testing are developmentally appropriate for children in the grades third through sixth from a teacher's perspective.

The research questions were as follows.

1. How much instructional time during a school day do teachers feel he or she spends on preparing students for the computer-based standardized tests?
2. From a teacher's perspective, are the type written responses, which are required for the computer-based standardized testing developmentally appropriate, for children in the grades third through sixth?
3. From a teacher's perspective, is there enough instructional time during a school year before the computer-based testing begins to cover all the material in which the children in grades third through sixth are required to know to perform to his or her best ability?
4. From a teacher's perspective, are all his or her students benefiting academically using the Common Core State Standards and the computer-based testing?

Discussion

Overall, seven participants participated in the current study. All seven of the participants are elementary school teachers who are responsible for implementing both the Common Core State Standards and the Partnership for Assessment of readiness for College and Careers computer-based standardized test to students who are in the grades

third through sixth. Fifty-seven percent of the participants (n = 4) stated that over 50% of the instructional time in a school day is spent preparing students for the computer-based standardized test. The majority of the participants reported the computer-based standardized tests for type written responses are not developmentally appropriate for students who are in the grades third through sixth. Furthermore, 100% (n = 7) of the participants agree that the computer-based standardized testing is above development ability for students with an IEP. The current study also showed that 100% (n = 7) of the participants do not feel the computer-based standardized tests are an accurate measuring tool for assessing the students' academic abilities. Although 57.1% (n = 4) of the participants stated that over 50% of the instructional time during a school day is spent preparing students for the computer-based standardized tests, 85.7% (n = 6) of the participants indicated that there is still not enough instructional time in the school year to cover all the material before the tests are implemented in order for students to perform at his or her best abilities. Furthermore, 71.4% (n = 5) of the participants do not feel that all students are benefiting from the Common Core Standards, and 85.7% (n = 6) participants do not feel that all students are benefiting from the computer-based standardized tests.

Research Question #1: How much instructional time during a school day do teachers feel he or she spends on preparing students for the computer-based standardized tests?

Standardized testing has been around for hundreds of years as a measuring tool to assess the performance of students' academic abilities. Existing research has shown that over the years, due to standardized testing, instructional time has been limited for certain subjects in order to focus on other subjects which will be on the test. Therefore, by not

allowing enough instructional time to cover all subjects, creates a loss for an enriched education (Au, 2009; Robinson, 2014; & Turgut, 2013). The current study showed that the participants spend over 50% each school day of instructional time preparing students for the computer-based standardized tests.

Research Question #2: From a teacher's perspective are the type written responses which are required for the computer-based standardized testing developmentally appropriate for children in the grades third through sixth?

Existing research has shown that computers can be a great learning tool, however the programs need to be age appropriate in order for the students to successfully perform the tasks which are expected (Haugland & Shade, 1988). Furthermore, existing research has also shown that depending on the geographical location, depends on the availability of computers and the internet. There are some school districts due to low funding, cannot afford computers, and some districts because of the geographical locations only have dial up internet (Education, 2016). According to the current study, 85.7% (n = 6) of the participants indicated that computer-based standardized test with the use of keyboards to type written responses is not developmentally appropriate for students in grades third through sixth. Further analysis from the current study found in the theme of using keyboards as a tool for written responses was an overwhelming response from the participants, the skills needed to type written responses is above development levels.

Research Question #3: From a teacher's perspective is there enough instructional time during a school year before the computer-based testing begins to cover all of the material in which the children in grades third through sixth are required to know in order to perform to his or her best ability?

Instructional time for both the teachers and the students is very important for teaching, learning, and to be able to comprehend the material in which needs to be covered before the computer-based standardized testing begins. Existing research shows that numerous schools are teaching to the test because there is not enough instructional time to meet all of the standards (Musoleno &White, 2010). The current study shows that 85.7% of the participants reported there is not enough instructional time throughout the school year to prepare students to perform at his or her best ability on the computer-based standardized test. Analysis from the current study found in the theme of developmentally appropriate standards shows that 71.4% (n = 5) of the participants stated there is not enough instructional time to master a skill before moving onto the next skill.

Research Question #4: From a teacher's perspective, are all his or her students benefiting academically through the use of the Common Core State Standards and the computer-based testing?

For hundreds of years' huge discoveries have been made through research on child development. The most consistent finding in existing research is the "whole child", the child grows cognitively, psychologically and physically through experimentation, observation, and exploration of one's environment, and by working at his or her own pace (Crain, 2011). The current study shows that 87.5% (n = 6) of the participants reported there are too many standards to cover in a school year. The current study also shows that 87.5% (n = 6) of the participants indicated there is not enough instructional time for depth and mastery. Further analysis also shows that 71.4% (n = 5) of the participants indicated that his or her students do not have the skills or proficiency to type written responses.

Limitations

There were limitations to the current research study. The sample size (n = 7) was not representative to the entire teacher population who are employed within the regional #11 area. The online questionnaire was sent to emails of 130 potential participants' school emails through the Qualtrics program. The low response rate may have been due to the online distribution method of the survey. The limitations of online surveys through emails could be the clutter or spam, where emails are sent if the email does not recognize the URL. This was a limitation due to lack of personal contact with the researcher. Further limitations were the open-ended questions where the full understanding of the qualitative responses could have been misunderstood. Furthermore, there were two school districts within the regional #11 area in which take paper form PARCC testing because of the limited access to computers, therefore, were unable to participate in the current study.

Recommendations for Future Research

It would be beneficial for future researchers to focus on the geographical area of the study. Within the regional #11 area, there are school districts where sixth grade is included in the middle schools, and other districts sixth grade is still at the elementary level, this could make the developmental level different. Further recommendations would be further research on the school districts where students have been using iPads as a learning tool for several years, and some school districts where there are not enough computers for all the students, it would be interesting to see the difference in performance. In addition, it would be beneficial to researchers to include or determine

why teachers who teach the grades first through sixth are not included in developing the standards or why teachers do not have access to view the computer-based standardized tests. Lastly, it would be beneficial for future researchers to present the study through a presentation explaining the purpose of the study, this would allow teachers to ask questions, and the researchers could include face-to face interviews for the qualitative data. The face-to-face data collection method as opposed to the online survey used for this study might increase the participant response rate.

Conclusion

The study focused on the developmentally appropriate implementation of both the Common Core State Standards and the computer-based standardized testing from a teachers' perspective. Educational institutions need standards and assessments for teachers to follow and make sure his or her students are meeting the expectations. However, according to the current study the standards and the computer-based standardized testing has too many expectations for students in grades third through sixth. The current study has shown from the participants' expertise and experience that he or she do not feel there is enough instructional time, whether it be in a single school day or over the entire school year, to cover all of the standards, therefore hindering the students' performance on the computer-based standardized tests. Furthermore, due to the computer-based standardized testing with the use of keyboards as a tool to type written responses for students in grades third through sixth, teachers felt this is above his or her students' developmental levels.

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APPENDIX A

CONSENT FORM

EIU Behavioral Consent Form

Are our children being standardized in order to conform to a competitive global economy? Developmentally appropriate implementation of both, the new Common Core State Standards and the computer-based standardized testing from a teachers' perspective.

You are invited to be in a research study where the implementation of both the new Common Core State Standards curriculum and the new computer-based standardized testing will be investigated to determine if both are developmentally appropriate for children in the grades third through sixth. You were selected as a possible participant because you are an elementary teacher. Please read this form and ask any questions you may have before agreeing to be in the study.

This study is being conducted by Lisa Flynn, a graduate student in the School of Family and Consumer Sciences at Eastern Illinois University.

Background Information:

The purpose of this study is to examine the teachers' views on the implementation of the new Common Core State Standards (CCSS) curriculum and the computer-based standardized tests which goes along with the new standards.

Procedures:

If you agree to be in this study, I would ask you to do the following things:
Complete a survey that will take approximately 20 minutes and answer questions from your personal and professional experience and expertise as an elementary teacher about the implementation process of both the CCSS and the computer-based standardizing test.

Compensation:

You will be entered into a drawing for a $25.00 gift certificate to Starbucks upon completion of the survey. The drawing for this gift certificate will take place on September 30, 2016.

Confidentiality:

The records of this study will be kept private and confidential to the extent permitted by law. Future publication, presentations, and educational seminars will not include any information that will make it possible to identify a subject. Research records will be stored securely and only the researcher will have access to the records.

Voluntary Nature of the study:

Participation in this study is voluntary. Your decision whether or not to participate will not affect your current or future relations with Eastern Illinois University. If you decide to participate, you are free to not answer any question or withdraw at any time without affecting those relationships.

Contact and Questions:

The researcher conducting this study is Lisa Flynn. You may ask any question you have now. If you have a question later, you are encouraged to contact her at (217) 251-8808 or llwinnett@eiu.edu. Or you may contact Dr. Katherine A. Shaw, Eastern Illinois University, Department of School of Family and Consumer Sciences at kashaw2@eiu.edu.

If you have any questions or concern regarding this study and would like to talk to someone other than the researcher or committee members, you are encouraged to contact the EIU IRB at the Office of Research and Sponsored Programs 1102 Blair Hall Charleston, IL 61920, or (217)581-2125.

You will be given a copy of this information to keep for your records.

Statement of Consent:

I have read the above information. I have asked questions and have received answers. I consent to participate in the study

Signature	Date
Lisa L. Flynn	8-26-16
Signature of Investigator	Date

APPENDIX B

RECRUITMENT EMAIL

Hello, my name is Lisa Flynn and I am a graduate student in the School of Family and Consumer Sciences at Eastern Illinois University. I am currently recruiting participants to complete a survey as part of my master's thesis research. The survey will take approximately 20 minutes to complete and after completion you will be entered to win a $25 gift certificate from Starbucks. My research topic focuses on the developmentally appropriate implementation of both the new Common Core State Standards along with the computer-based standardized testing from a teacher's perspective.

In order to participate you must:

- ✓ Be an elementary school teacher who teaches one of the grades between 3rd and 6th.

All of the information that I receive from you during research will be kept completely confidential. I will not use your name or identifying information in any reports of the research.

If you are interested in participating, please respond to this email or contact me at (217) 251-8808.

Thank you,

Lisa Flynn

Graduate Student

School of Family and Consumer Sciences

Eastern Illinois University

APPENDIX C

Flynn Developmentally Appropriate Computer-based Standardized Testing Questionnaire

You are being asked to participate in a study which requires your expertise and experience in regards to the implementation of computer-based standardized tests and the new Common Core State Standards. Results of this study will be used for a Master's thesis at Eastern Illinois University in the School of Family and Consumer Sciences, future presentations, and possible publications. Your participation is completely voluntary and for the purpose of research only. Please answer each question to the best of your ability. You may choose to withdraw from the study at any time. The information that is obtained for this study will remain anonymous.

1. Gender _____Male _____Female

2. What grade do you teach? _____

3. How many students are in your classroom? _____

4. How long have you been teaching? _____

5. Using a scale of 1- 5, with 1being the least developmentally appropriate and a 5 being the most developmentally appropriate how would you rate the new computer-based standardized testing for your students? _____

6. Please explain why you rated the way you did.

_____

_____

_____

_____

7. Using a scale where 25%, 50%, 75%, and 100% represent the instructional time spent during a school day. How much instructional time during a school day is spent on preparing students for the computer-based test? _____

8. Please explain your answer.

_____

_____

_____

_____

9. How much instructional time in a week is spent using computer keyboards? 15 minutes, 30 minutes, 45 minutes, 60 minutes, please indicate _____

10. Do you feel your students are developmentally ready to type written responses, using the computer keyboards? Using a scale of 1-4, 1 being not at all, 2 being somewhat ready, 3 being ready, 4 being very ready. _____

11. Please explain why you feel this way.

_____

_____

_____

_____

12. In your opinion do you feel the time which is allotted for the computer-based standardized tests is age appropriate for your students? Using a scale of 1-4, 1 being not at all, 2 being somewhat, 3 being enough time, and 4 being too much time._____

13. Please explain why you chose this answer to question #12.

_____

_____

14. In your professional opinion, do you feel the computer-based standardized testing is developmentally appropriate for your students who have an IEP? _____

15. Please explain your answer to question #14.

16. In your professional opinion, do you feel there is enough time in the school year to cover all the material which is expected to be taught to your students which is required by the Common Core State Standards? _____

17. Please explain your answer to question # 16.

18. Using a scale of 1-4, 1 being not at all, 2 being somewhat, 3 being ready, and 4 being very ready, do you feel your students are well prepared and will be able to perform at his or her best academic ability when the tests are implemented? _____

19. Please explain your answer to question #18.

20. From your professional experience as a teacher, do you feel that the Common Core State Standards are providing an enriched educational experience for your students? Please use the space below and feel free to elaborate on your professional opinion based on your expertise and experience as a teacher.

21. In your professional opinion do you feel all of your students are benefiting academically with the use of the CCSS?

22. In your professional opinion do you feel the PARCC standardized tests results are an accurate measurement of assessing your students' academic abilities?

23. Do you feel the instructional time in which is allotted in order to cover the content which will be tested on the PARCC standardized tests is a sufficient amount of time?

24. If you were allowed to make changes to the CCSS, what changes or improvements would you make?

25. If you were allowed to make changes to the CCSS, what would you not change?

26. If you were allowed to make changes to the PARCC standardized test, what changes or improvements would you make?

27. If you were allowed to make changes to the PARCC standardized test, what would you not change?

28. What suggestions do you have to better prepare students for the CCSS curriculum and the PARCC testing?