THE IMPACT OF *I*STATION READING PROGRAM ON READING ACHIEVEMENT OF THIRD GRADE STUDENTS: A MIXED METHODS INQUIRY

A Dissertation

by

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This dissertation meets the standards for scope and quality of
Texas A&M University-Corpus Christi and is hereby approved.

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ABSTRACT

Americans have viewed literacy as an important aspect, not only in education, but also as a necessity for improving individual lives as they develop into productive citizens. The federal government has implemented several programs to help struggling students achieve literacy skills.

The primary purpose of the study was to examine the impact of the *I*station reading program on standardized academic achievement in reading. The setting for the mixed methods study was an elementary school in south Texas. The State of Texas Assessments of Academic Readiness (STAAR) scores were analyzed to test the hypothesis that third graders who used the *I*station reading program (n=102) would score higher on standardized reading than did the students who had not used the *I*station reading program (n=109). For the qualitative component of the study, a focus group was conducted to document the perspectives of a sample of teachers, n=7 regarding the effectiveness of the *I*station reading program.

The quantitative results showed that the third graders who used the *I*station reading program scored higher in the STAAR Reading Category 2: Understanding and Analysis of Literary Texts compared to the comparison group; however, group differences on the basis of the Reading Category 1: Understanding across Genres, and Reading Category 3: Understanding and Analysis of Information Texts were not statistically significant. Analysis of qualitative data resulted in eight themes, namely, (1) chronicles, (2) simplicity, (3) augmentation, (4) convenience, (5) parent accessibility, (6) intervention, (7) students' delight in, and (8) deficiencies and extraneous variables.

The results of the study suggested that *I*station offers various resources which are not utilized properly due to the lack of time and appropriate training needed to correctly implement

the program. If implemented properly, the *I*station reading program can be instrumental in providing the students with an experiential teaching/learning environment and experience. It is recommended to conduct an experimental study with three groups: (1) no *I*station, (2) *I*station, and (3) *I*station plus a teacher trained to deliver *I*station's supplemental intervention lessons with academic achievement in reading as the outcome measure.

DEDICATION

First and foremost, I would like to take this opportunity to thank the good Lord for allowing me to fulfill my lifelong dream and goal of pursuing a doctorate. Without God's blessings, I would not be writing this dedication and dissertation. Through God, and with God, all things are made possible.

This dissertation is dedicated to my family whom I love very much. My siblings: Lucas, Mary, Elena, Eddie, Rey, and Raul. I want to thank the following: my husband, Aureliano Marin, my daughter, Jessica Marin, Perry Sanchez, my son-in-law, my mother, Irma R. Jasso, and immediate family members for always having the confidence in my abilities to accomplish my goals. To my husband thank you for providing me the support, love, and stability at home while I was buried in school work. For my loving and caring daughter who demonstrated great patience and endless love as I spent many long hours away from home, in front of the computer, and placing my studies before you. Jessica, as you grow older, I hope that I have instilled in you the love to keep learning as much as I have. Perry, thanks for always keeping track of time and having me go to bed when my work took me into the following morning early hours. To my mother and family members, who never stopped believing in my capabilities, I thank you for always offering lots of prayers, words of encouragement, and advice. Your guidance, support, and unending love throughout the years made me a stronger and capable person. To my nieces and nephews, especially my nephew, Javier Jose (JJ), who counted on me as their primary inspiration as they pursued their educational goals. I thank my brother Lucas, who always pushed me to move forward and to never give up. Lastly, I am thankful to my friends, Dr. Rebecca Palacios, Lamar and Theresa Childress, Dr. Fernando Cortez, Rita Balderas, and Dr. Valentin Ekiaka Nzai, who encouraged me to finish my dissertation.

Finally, this dissertation serves as a special dedication to the memory of my father, Manuel Jasso, who was such a God-sent to my existence. My heart will always be filled with the beautiful memories my dad left me with. I know that he is now one of God's angels who still watches over me. His insistence in pursuing a good education was the drive to complete this educational goal.

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TABLE OF CONTENTS

LIST OF TABLES

LIST OF FIGURES

Chapter 1

INTRODUCTION

Background and Setting

Throughout history, Americans have viewed literacy as an essential component in educational instruction for students in school and for adults (U.S. Department of Education, National Center for Education Statistics, 1996). According to the United States Department of Education's strategic plan for the fiscal year 2011-2014, schools need to do a better job in ensuring not only that students graduate in a timely manner, but also that students are prepared for college and a career (U.S. Department of Education, FY 2011-2014). Schools have always been expected to maintain high standards of literacy. When children reach third grade, it is often possible to predict who will eventually drop out of school and who will earn a high school diploma (Fiester, 2010).

If children are not reading on grade level by third grade, their chances of graduating from high school are significantly lessened (Hernandez, 2012). In order for teachers to positively impact students who are struggling with literacy, they must diagnose students and implement appropriate programs.

The federal government began its Title I (formerly known as Chapter 1) Remedial Literacy Program in order to aid students who are struggling to achieve literacy skills. The Title I program was the largest federally funded program designed to offer schools with high numbers of at-risk students extra financial funds to appropriately and effectively deal with struggling readers. A 2000 National Assessment of Educational Progress report found that Title I funding and its programming regulations did not meet its original goals (Connor, Morrison & Katch, 2004). In fact, in many instances, school populations lost ground. Title I did, however, confirm

that attendance, gender, and socioeconomic status played a vital part in student success rates. It has also been suggested that a number of additional risk factors be carefully considered when placing labels on poor student achievement, such as grade retention, behavior problems, and being enrolled in schools with a large percentage of poor children (Natriello, McDill, & Pallas, 1990).

Early intervention strategies are being utilized in order to enhance the literacy of children, for the most part, at-risk children, by employing different educational programs. One such program that has been implemented for reading achievement is the Texas Students Using Curriculum Content to Ensure Sustained Success (SUCCESS). Texas SUCCESS provides state-funded access to interactive mathematics and reading programs for Texas public school students in grades 3-8:

> These engaging and interactive online programs support students at all skill levels and, most importantly, encourage and enable progress and achievement as they move through the activities and curriculum. The Texas Education Agency (TEA) and Education Service Center (ESC), Region 20 provides access to *I*station Reading and Think Through Math. *I*station Reading is a computer-based adaptive learning system that provides research based reading instruction. Think Through Math is an adaptive online learning program that deepens students' understanding of critical math concepts and problem-solving skills (Texas Education Agency & Education Service Center, Region 20, 2014, para. 1-2).

The consequences of ineffective early instruction and curriculum deficiency in the beginning years of school are higher dropout rates throughout the country (Hernandez, 2012). The *I*station reading curriculum developers state that their program specifically addresses the

difference between language development and reading skill needs, with particular attention to English Language Learners (ELLs). The *I*station reading program claims to make English reading clear by using sheltered instructional techniques. The *I*station reading program helps ELL students understand the academic vocabulary words that the students will need to know throughout their years in school and beyond (*I*station, 2010).

Statement of the Problem

In a South Texas Title I elementary school, third graders are struggling with acquiring much needed literacy skills. This South Texas Title I school started using the *I*station reading program during the academic year of 2013-2014 in an attempt to supplement literacy skills. As of this writing, the school serves approximately 810 students, ranging from Head Start three-year olds to 5th grade. The overwhelming majority of the students, 98.00%, are economically disadvantaged and 67.00% are at-risk. The Limited English Proficient population consists of 13.30% of the students, and 7.50% of the students are classified as special education. The ethnic distribution consists of 6.20% Whites, 0.25% Native Americans, and 92.30% Hispanics, and 2.00% African Americans. The school has two Head Start three-year-old classes, four PK-4 classes, six kindergarten classes, seven first-grade classes, seven second-grade classes, six third-grade classes, five fourth-grade classes, and four fifth-grade classrooms. Each grade level class has approximately 21 students.

Implementation of the *I*station reading program is funded through the Texas Education Agency (TEA) and Education Service Center (ESC), Region 20, under the heading, "Texas SUCCESS" for students in Texas schools. These agencies provide access to the *I*station Reading and Think Through Math free of charge for third through eighth grades. The *I*station Reading program provides reading instruction using an online computer-based system that provides free

program access on a continuous basis to teachers, students, and parents. The *I*station Reading program also helps students build self-confidence and achieve educational success (Texas Education Agency, 2013). However, the *I*station reading program has not been systematically evaluated at this elementary school.

Theoretical Framework

Lev Vygotsky, a Russian psychologist, conceptualized an idea known as the zone of proximal development (ZPD), which theorized that the way a child performed was based on what a child could do independently as opposed to what a child could do with assistance (Vygotsky, 1978). Reading is generally thought to be multidimensional, and calls for intellectual processes that operate on numerous distinctive types of abilities that help attain various kinds of reading achievement. Intellectual capacity happens as the reader constructs one or more mental image of a text message (Kintsch & Rawson, 2005). Education and development is a social, shared activity. The contact children exhibit with grown-ups and other peers is important, especially when using technology to improve corresponding, contacting, and networking with others' which helps enrich their learning environment (Maddux, Lamont-Johnson & Willis, 1997).

Vygotsky posited an elaborate and active connection between wisdom and development that is set on what he describes as a child's *zone of proximal development* (ZPD). Vygotsky's assumption is established on the belief that information can guide growth, and growth can lead learning (Kozulin,Gindis, Vladimir, Ageyev & Miller, 2003). The ZPD is the point in the midst of a learner's level of self-reliant attainment (often called developmental level) and the level of supportive completion, that is, what the child can do with help. "Independent performance is the best the learner can do without help, and assisted performance is the maximum the learner can

achieve with help" (Mishra, 2013, p.23). By keeping an eye on assisted accomplishments, one can explore a scholar's potential regarding current paramount level of functioning. By way of detection of a learner's ZPD, educators can discover what knowledge, talents, and understandings have not thus far emerged for the learner, but are on the verge of materializing (Ozer, 2004). Teachers, in a similar way, examine ways to interest the learner in shared or co-operative learning experience based on the student's ZPD (Vygotsky, 1978). Teaching towards a student's ZPD consists of accomplishing more than just finishing an assignment in a joint practice; it entails increasing the student's developed cognitive capacity, such as the means to design, assess, learn, and justify. Classroom learning experience should be reality-based and relevant with real world experiences, such as in using technology to take a virtual field trip to learn about distant countries and customs (Maddux, LaMont-Johnson, & Willis, 1997).

Purpose of the Study

The primary purpose of the study was to examine the impact of the *I*station reading program on third-grade standardized reading achievement in a South Texas Title I elementary school setting. The secondary purpose of the study was to document the perspectives of third grade teachers regarding the effectiveness of the *I*station. The study was guided by the following research questions:

1. How do third grade students using the *I*station reading program perform in standardized reading achievement compared to students who do not use the program?
2. What are the perspectives of third grade reading educators regarding the effectiveness of the *I*station program?

Standardized reading achievement was measured by the number of correct answers to questions in each of the three State of Texas Assessments of Academic Readiness (STAAR)

reading categories: Category 1: Understanding a variety of written texts across reading genres; Category 2: Understand and analyze literary texts; and Category 3: Understand and analyze the informational texts. Focus group qualitative data were analyzed to document the perspectives of reading teachers regarding the pros and cons of the *I*station.

Glossary of Terms

At risk — Refers to students who fall short of the reading proficiency required for their grade and need special intervention to reduce the possibility of serious failure.

Competence — Refers to students' performance at the expected mastery of 75% to 100% scores on standardized tests.

English Language Learner (ELL) — Refers to an individual whose first language is other than English.

The State of Texas Assessments of Academic Readiness (STAAR) - A series of state-mandated standardized tests used in Texas public primary and secondary schools to assess a student's achievements and knowledge learned in the grade level.

Success for All – A comprehensive restructuring reading program developed by Robert Slavin and Nancy Madden at John Hopkins University (1987), to identify students who are likely to fail (Quint, Balu, DeLaurentis, Rappapart, Smith, & Zhu, 2013).

Technology Integration Reading Instruction – Refers to the infusion of technology as a tool to enhance reading instruction in the classroom.

Texas SUCCESS – Provides state-funded access to interactive mathematics and reading programs for Texas public school students in grades 3-8.

Title I (Chapter 1) – Federally funded program which provides additional funding to schools based on the ratios of children at or below the poverty level (United States Department of Education, 2004).

School wide Title I school – Refers to a school receiving Title I federal funds and having at least 50% of its student population enrolled in school or residing in the school attendance area and are from low-income homes and having at least 50% of students receive free or reduced price lunches (U.S. Department of Education, 1996).

Delimitations, Limitations, and Assumptions

The study was delimited to Hispanic third-grade students in one Title I campus in a South Texas school district and the outcome measures of academic achievement in reading. Due to the non-probability nature of sampling, external validity was limited to study participants. No causal inferences were drawn due to the non-experimental nature of the study. The study assumed (1) existing data provided to the researcher were accurate, (2) focus group participants would articulate their experiences with the *I*station honestly, and (3) the researcher remained academically rigorous with objectivity and subjectivity in both the quantitative and qualitative portions of the study respectively.

Significance of the Study

The study investigated whether the *I*station reading program improved standardized reading achievement among third graders who were at risk of becoming poor readers. It is reported that "Reading scores on the National Assessment of Educational Progress are embarrassingly low for all children and abysmal for minorities" (Guernsey & Mead, 2013, para.2). Test scores on international examinations show that U.S. students are not achieving at the levels of their counterparts in other countries.

To become productive members of the 21st century work force, students must learn how to collect, understand, and manipulate information, and to prepare for jobs that have not yet been created (Jerald, 2009). According to Ken Kay, Chief Executive Officer (CEO) of EdLeader 21, "Today's students need critical thinking and problem-solving skills not just to solve the problems of their current jobs, but to meet the challenges of adapting to our constantly changing workforce" (National Education Association, n.d., p.6). "For many students, six hours of seat time and lecturing every day crushes their interest in learning. Many students learn better and learn more through meaningful, relevant applications of academic knowledge, using engaging technologies and other tools" (Career and Technical Education, 2010, p.17).

The study's findings are particularly important because of the criticism about the Title I educational program due to the lack of positive educational influence involving literacy. Success For All (SFA) is one program put into practice with Title I funds that school administrators may want to consider utilizing as an option to customary Title I programming. School administrators may also need to think about alternative programs as they begin to look into other ways to educate previously identified low performing students lacking in literacy skills. The *I*station reading program may be instrumental in influencing standardized reading achievement.

Chapter II

REVIEW OF THE LITERATURE

Introduction

The Imagination Station (*I*station) is an internet-based program which helps supplement and contains intervention for at-risk students. The program is meant to be utilized to help prevent up-and-coming readers from staying behind and to supplement the fundamental reading program for kindergarten through third grade students that include Special Education, comprehensive education, English Language Learners (ELL), and readers who are lacking behind their peers (Florida Center for Reading Research, 2006).

The primary purpose of the study was to examine the impact of the *I*station reading program on third-grade standardized reading achievement in a South Texas Title I elementary school setting. The secondary purpose of the study was to document the perspectives of third grade teachers regarding the effectiveness of the *I*station. Chapter 2, Review of the Literature, is arranged into seven crucial fields: Early Literacy, Legislative History, Title I of the Elementary and Secondary Act of 1965, Success for all, State of Texas Assessments of Academic Readiness (STAAR), Technology in Education, and *I*station Reading Program.

Early Literacy

Schools have always been required to have and uphold high standards of literacy. Reading is probably the single most important intellectual ability we acquire (Cook & Cook, 2009). According to Fiester (2013), many of our nation's children are not reading at grade level. Today's demands from the general public require that even higher standards be applied. Contrary to the common idea that recent information technologies would decrease the ability to

rely on the printed word, reading and writing are even more important than ever before (Lemke, 2002).

"Sometimes, in spite of administrators' and teachers' best efforts, a significant number of children continue to fall short of achieving the success that is required in elementary school to enable them to make satisfactory educational progress. This problem is a wide-spread one that varies from system to system" (Atkinson, 1998, p. 9). Educational progress presents children with opportunities for an assortment of career choices and improves their chances of having a happy, productive life. According to Snow and O'Connor (2013), prompting students to recall pertinent background knowledge is important when they need to assess new information.

Reading is a necessary skill; however, it is not easily mastered by everyone. "The number of children identified with learning disabilities also continues to rise in the United States" (Hall, Hughes & Filbert, 2000, abstract). These children, who are identified with learning disabilities, tend to suffer more in the area of reading. Educators continue to search for interventions to improve students' reading skills. According to Hall, Hughes, and Filbert (2000), "about 23 million adults have basic skills at a fourth grade level or below, and are classified as functionally illiterate" (p. 173).

Educators acknowledge that children are always learning and developing skills, even from the time they are born. Society must invest enough time, money, and energy towards children's educational upbringing. Children's early experiences may produce either a strong and sturdy foundation or one that is weak and frail for the child (The Annie E. Casey Foundation, 2013). "Third grade is an important pivot point in a child's education, the time when students shift from learning to read and begin reading to learn" (Hernandez, 2012, p. 5).

Teachers cite children's lack of educational skills as the most frequent problem they encounter when entering the school (Rimm-Kaufman, Pianta, & Cox, 2000). Children who enter school possessing some academic skills do better later on in their educational achievement (Entwisle & Alexander, 1993). Student assessment scores in the elementary school years are associated with how the student's economic outcomes, such as employment and earnings, will fare in adulthood (Krueger, 2003).

There have been numerous studies which show that when a child is read to at a young age, the child acquires an advantage for achieving in school (Whitehurst, Arnold, Epstein, Angell, Smith, & Fischell, 1994). Reading expands a child's vocabulary and writing skills, promotes social and emotional development, enhances attention span, improves memory, and increases creative and critical thinking skills in school (Lane & Wright, 2007). When children are read to, their vocabulary tends to increase due to their exposure to the spoken language. Children's vocabulary and knowledge of words increase from the oral reading, and, therefore, the child tends to do better in reading and develops high self-esteem (Duursma, Augustyn, & Zuckerman, 2008).

Guernsey and Mead (2013) stated that we should invest in creating a high-quality educational system that starts with educating three-year-olds all the way up to third grade. Reading proficiently by the end of third grade plays an important role in a student's future educational success, as measured by assessment tests and other indicators of academic achievements (Barth, 2012). If children are not reading at grade level by third grade, their chances of graduating from high school are significantly lessened (Feister, 2013). Teachers can have a positive influence on students' literacy when they have the information about the students' abilities.

Baker (2008) conducted a study of low performing, high poverty schools. In this study, a strong support regarding the ability to read fluently as an essential part of reading abilities was noted. Barth (2012) stated that "true reading comprehension is not just the ability to recognize words and articulate them, but also the ability to understand the underlying concepts expressed by those words" (p.3). Barth further explained that reading is also completely, but not directly, linked to future educational success and is crucial to a student's development throughout all subject areas.

As students proceed from third to fourth grade, the school work becomes more intense, and students require proficient reading skills in order to successfully complete the educational tasks. Students are now transitioning from third to fourth grade and are making the leap from learning to read to using reading in every aspect of learning. "When more than two-thirds of students cannot read at grade level and barely three-quarters are graduating from high school on time, it is time to re-evaluate not just how well our schools and teachers are doing, but whether the entire system needs an overhaul" (Guernsey & Mead, 2013, para 2). When a child fails to achieve reading proficiency, other factors come into play such as low self-esteem. Students are also more likely to engage in behaviors that lead to disciplinary problems, which may even call for suspension, thereby causing students to lose instructional time and fall further behind in their schoolwork. In secondary education, reading skills are lacking because students are not being exposed to what they need to read, and scholastic textbooks contain easier reading materials rather than challenging students in vocabulary and reading comprehension (Adams, 2010-2011). When students do not have enough practice with reading materials or the materials are difficult to decode and comprehend, the students become dispirited due to their reading experiences, and

then it becomes probable that they may not take part in reading-related activities (Cunningham & Stanovich, 2001).

Generally educators think that students who are able to proficiently read aloud also understand everything they read, and this is usually not true. Massey (2007) commented on this problem: “With the increased emphasis on phonics in the primary grades, many students are becoming excellent word callers, while lacking in comprehension skills. As these students reach the intermediate grades, they may struggle to transition from word calling to text comprehension” (p. 656).

A study by the National Institute of Child Health and Human Development reported that since 1996, state and federal reading initiatives had centered on the crisis of reading failure at kindergarten and the primary grades (Moats, 2002). The spotlight on early intervention is important, given the compelling fact that research-based instruction, beginning in kindergarten, significantly reduces the number of children who experience reading difficulty. Once children fall behind, it is difficult for them to catch up in schools, which inevitably affects their future. Problems with reading arise when students are not able to form whole words using blend words found in printed text (Cook & Cook, 2009). Students’ comprehensions of terms are considerably strengthened due to vocabulary instruction (Adams, 2010-2011).

Barth (2012) stated that a longitudinal study of nearly 4,000 American young people, born between 1979 and 1989, found that below-basic readers failed to obtain a high school diploma by age 19. Bridgeland, Dilulio, and Morison (2006) found that “high school dropouts are more likely to be unemployed, spend more time in poverty, use more public assistance, and end up on death row than people who have a high school diploma” (p. i). Failure to succeed in school creates a problem not only for individuals but also for the society because it affects the

nation, which lacks productive workers, and loses the added tax revenue that comes with them. According to Bridgeland et al (2006), "... there are other social factors which are also affected by individuals who drop out of school. Housing prisoners, healthcare for uninsured persons, unemployment, and social services are among other costs that society must pay when students drop out and cannot provide for themselves" (p. i). If reading skills are not developed during a child's early school years, "the United States will lose a growing and essential proportion of its human capital to poverty, and the price will be paid not only by individual children and families, but by the entire country" (Fiester, 2010, p. 7).

The Annie E. Casey Foundation (2013) stated that, "federal spending on children has declined and is projected to continue to decline as a percentage of Gross Domestic Product (GDP) over the next decade to its lowest point since the Great Depression" (p. 1). If the nation does not invest in our children's educational welfare, students in the lower grades tend to suffer, both presently and in the future. Studies, such as those conducted by The Annie E. Casey Foundation in 2010, have demonstrated that children who cannot read by the end of third grade will most likely experience setbacks as adults. If a child is not proficient in reading by the end of third grade, consequences can proceed into adulthood. Nearly 80% African-American, Hispanic, and American Indian children are not proficient readers, according to the Campaign for Grade-Level Reading (as cited in The Annie E. Casey Foundation policy report, 2013). When a child enters school with low or below-average skills but is physically healthy and possesses strong emotional skills, that individual can still acquire literacy skills at a subsequent time during their elementary years.

Parents should be the first teachers in a child's life. However, due to reasons such as stress, poverty, or other barriers, children from such environments are often not provided with

the adequate educational skills needed to succeed in school. "Children who live in persistent poverty or in low-income families are more likely to be poor between the ages of 25 and 30, give birth as teens out of wedlock, struggle to maintain stable employment and have poor overall health" (Annie E. Casey Foundation, 2013, p.5).

Legislative History

Throughout the United States, school districts are carefully developing ways to ensure that all children achieve educational skills so that no child is left behind. Teachers, politicians, and government officials are paying attention to the K-12 instructional techniques. They are noticing that from the moment certain adolescents enter kindergarten, some of the students are already behind their classmates in educational preparedness (Reynolds, Magnuson & Ou, 2006).

Texas has a history of support for education. In 1836, the Texas Declaration of Independence identified the Mexican government's policies as being the cause for the lack of education in the public system. Over the years, a number of regulations have awarded cities and towns additional independence in the growth and management of their educational institutions, bringing about the development of independent school districts (Texas Education Agency, 2010).

In 1984, House Bill (HB) 72 revamped the state's system of public school finances to include more financial assistance for property-poor school districts so that children would have a chance of improving academically. The HB 72 also called for a pay raise for teachers, with expectations of providing better quality instruction for the children.

In 1995, the 74th Legislature, under Senate Bill 1, formed a State Board of Education, and provided additional power for local school districts. Additionally, Senate Bill 1 granted the governor the right to designate the commissioner and form an independent State Board for Educator Certification.

Senate Bill 7 established financial equity for school districts and created the accountability system. This accountability system holds educational institutions and districts liable for the student accomplishments on assessment tests and the rates of students who withdraw from school. With Senate Bill 7, students in grades three through 11 have to pass rigorous tests in order to be considered and labeled academically proficient.

The Elementary and Secondary Education Act (ESEA) of 1965 was initiated by President Lyndon B. Johnson who declared his commitment to end poverty so that all low-income families would have a way to help themselves (Boteach, Stegman, Baron, Ross, & Wright, 2014). The act was authorized through 1970 and intended for the ESEA to allow equal access to a good education for all students. The act was designed to reduce achievement gaps, hold high teaching standards, and provide accountability. The ESEA has been reauthorized every five years since its implementation, with the most noted reauthorization known as the "No Child Left Behind (NCLB)" act, authorized by George W. Bush in 2001.

Initially, the focus of the NCLB was on the persistent disparity of educational performance, especially among African-American and Latino scholars. The general agreement was that the inequitable distribution of educational results and benefits was due to low socio-economic resources, as well as schools within the community (Valenzuela, 2004). The NCLB was intended to close the gap among the low-income and minorities. With this act, one of the goals was to have students become capable and knowledgeable individuals, and ready to be productive in a fast-changing society.

Through the NCLB Act, there were certain criteria to set in place, such as highly qualified teachers, a quality education for all students regardless of language, opportunities for English-language learners, the option to transfer out of failing schools, and empowering parents by giving

them choices on how to best educate their children. The NCLB took effect in 2002 with the intention of producing children knowledgeable in mathematics and reading by 2014. "The No Child Left Behind Act required states to test reading skills annually for all students beginning in third grade, and to report these results for children by poverty status and race-ethnicity, as well as for English Language Learners and for children with disabilities" (Hernandez, 2012, p. 5). In March 2010, President Barak Obama and his administration revised the ESEA/No Child Left Behind Act, requiring a higher increase in federal funding for reading programs (Putting Reading First) and advocated for the United States to be placed back on the top charts by ensuring more high school and college graduates.

The Department of Education allots approximately 66% of revenue toward federal aid to public schools (Checkley, 2008). According to the State of Texas Legislative Budget Board report of 2013, "In order to continue to receive funding, states must meet the goal of having 100 percent of students score at state-defined proficiency levels on reading and math tests by the 2013–14 school year" (p.55). Two of the many federal funding programs for public schools in Texas have been Title I and Success for All.

Title I of the Elementary and Secondary Education Act of 1965

The fundamental goal of the new Title I of the Elementary and Secondary Education Act (ESEA) of 1965 (Sec. 1001) is to help those children who are at risk of failing in school improve their academic achievement. In an effort to deal with this severe lack of literacy, the federal government began its Title I (formerly known as Chapter I) Remedial Literacy Program to help address these problems. The Title I program is the largest federally funded program designed to offer schools with high numbers of at-risk students some extra financial funds to appropriately and effectively deal with the lack of literacy. The National Assessment of Educational Progress

reports in 1984 and 1997, respectively, found that Title I funding and its programming regulations did not meet its original goals. In fact, in many instances, school populations lost ground (Snell & Anderson, n.d.). According to Title I findings, the attendance of students at school, the student's gender, and the student's household income, played a vital part in the student's educational outcome. Poor student achievement is related to a number of additional risk factors, such as grade retention, student discipline, and the enrollment in schools having a large percentage of children who live in poverty (Natriello, McDill, & Pallas, 1990).

A greater emphasis on the understanding of the impact of Title I in the local setting was called for by the National assessment of Title I (Department of Education, 1996), which showed that "despite gains in reading and math performance, the students in the highest-poverty schools remained substantially below their more advanced peers in meeting basic standards of performance in both reading and math" (U.S. Department of Education, 1999, p. 15). The disturbing findings regarding the academic disadvantage of low-income children called for educators and legislators to seek different ways to undertake this educational problem. A variety of programs have been implemented to enhance the literacy of children, mostly "at risk" children, by making use of early intervention strategies. Recent Title I laws rely on studies that help develop student performance over a course of time. Texas SUCCESS is one of the programs that has been put into practice and funded by Title I to help in the development of reading skills of at-risk children.

Success for All

In 1999, then Governor George W. Bush gained the backing from state lawmakers to help create a reading program to deal with issues regarding low student performance. This new plan called for all students to read at grade level, or higher, by the end of third grade, and continue on

reading at grade level, or higher, throughout their schooling (Sims, 2008). Due to Governor Bush's new plan, the Texas Student Success Initiative was launched. The Texas SUCCESS program stands for *Texas Students Using Curriculum Content to Ensure Sustained Success* (Texas Education Agency, 2013).

Texas SUCCESS provides state-funded access to interactive mathematics and reading programs for Texas public school students in grades three through eight (Garland, Shields, Booth, Shaw, & Samii-Shore, 2015). The online programs support students at all skill levels and are interactive, which is helpful in keeping the students engaged. As students move through the activities and the curriculum, interaction with the program continues to help maintain motivation and encouragement.

"Success For All (SFA) is a school-based achievement-oriented program for disadvantaged students in grades pre-K through fifth" (Slavin & Madden, 1993, para. 1). During the early years, by effectively coordinating instructional and family support resources within the regular classroom, the aim was to ensure that every student in a high-poverty school would complete the third grade with grade-level reading skills (Balkcom & Himmelfarb, 1993). The SFA is based on the premise that every child can learn as long as the child is given the right support. Achieving in the lower grades is important for future success in school with emphasis on intervention strategies, such as one-to-one tutoring for students experiencing difficulty with reading (Livingston, 1997). The theme driving the SFA is that no student will be neglected, nor overlooked, while on the path to acquiring good reading skills.

In 2009, the 81st Texas Legislature modified the 1999, 76th Texas Legislature Student Success Initiative (SSI), which required students registered in grades five and eight to take the State of Texas Assessment of Academic Readiness (STAAR) reading and mathematics tests

(Technical Digest, 2008-2009). The student was to move on to the next grade level only by being successful in the standardized state tests, or by a decision agreed upon by the grade placement committee. The committee's agreement regarding the decision to promote the student was that students would demonstrate an effort to successfully perform at their grade level after receiving more instruction. The goal of the SSI is to ensure that all students receive the instruction and support they need to be academically successful in reading and mathematics through a joint effort involving schools, parents, and community members (Texas Education Agency, 2014).

State of Texas Assessments of Academic Readiness (STAAR)

The State of Texas has launched several statewide testing programs since 1979. Throughout the years, several changes to the statewide testing have taken place, not only in the name of the tests, but also in what was expected for students to achieve. The 81st Texas Legislature executed House Bill (HB) 3 in June, 2009, which replaced the way assessments were achieved (Technical Digest, 2013-2014). The new assessments were to measure across grades, culminating in college readiness, by looking at performance standards in Algebra II and English III. In the spring of 2012, the STAAR assessment became the replacement for the Texas Assessment of Knowledge and Skills (TAKS). The STAAR assessment places emphasis on quality preparation towards acquiring readiness standards which are essential toward obtaining educational and occupational skills. In 2011-2012, The STAAR program encompassed 12 end-of-course (EOC) assessments, mandated by Senate Bill (SB) 1031, as well as the third-to-eighth-grade assessments, mandated by HB 3 (Technical Digest, 2008-2009). "One of the state's goals in developing STAAR is that Texas will be among the top 10 states for graduating college-ready students by the 2019-2010 school year" (Patarapichayatham, Fahle, & Roden, 2014, p. 3).

Technology in Education

Technology has evolved rapidly and is constantly changing. "Today's students think and process information fundamentally differently from their predecessors" (Prensky, 2001, p. 1). Many schools are now using technology to supplement lessons in the classroom and are seeing a significant difference in their students' developmental skills. The International Society for Technology in Education (ISTE) and the State Education Technology Directors Association (SETDA) stated, "For more than a generation, the nation has engaged in a monumental effort to improve student achievement. We've made progress, but we're not even close to where we need to be" (n.d., p. 2). Teachers are using pre- and post- testing to assess students' educational progress, and to create differentiated instruction, especially for students who are at risk of academic failure.

Hall, Hughes, and Filbert (2000) examined 17 studies between 1980 and 1997 that dealt with computer-assisted instruction and the interventions utilized in reading that assisted students who lacked educational schooling in grades K-12. Computer Assisted Instruction (CAI) is based on the premise that educator-based lessons can be passed on to computer applications with added benefits (Rieth & Semmel, 1991). Hall, Hughes, and Filbert (2000) found that, "CAI can (a) instruct the difficult to teach at an individual pace, (b) provide immediate feedback, (c) provide instructive and consistent corrections, (d) allow for extensive rehearsal or needed repetition, and (e) be highly motivating" (p. 176).

Although the computer is not a replacement for the classroom teacher, it helps to reinforce classroom instruction and allows the teacher to devote instructional time to other students (Grimes, McCabe, & Rodman, 2007). Students need help to increase skills in decoding, phonemic awareness, word attack, comprehension, and phonics. Incorporating technology into

classroom instruction is more important than ever because schools are continually searching for ways to close the achievement gap (Grimes, McCabe, & Rodman 2007).

Supplemental funds to increase student educational success by means of the use of technology in elementary and secondary schools, as amended by the No Child Left Behind Act (NCLB), is found under Title II, Part D, of the Texas Education Agency (TEA) website. The "Enhancing Technology" program is intended to help every student become well-educated in technology by the end of eighth grade. "The program encourages the integration of technology resources and systems with teacher training and professional development to establish research-based instructional models" (Texas Education Agency, 2012, n.p.).

Today's classrooms are incorporating many different types of technology in lesson plans. Computers, interactive whiteboards, multimedia, and the Internet have been widely used in the last few years. Past research studies have debated whether or not using technology in an educational setting has helped improve student learning. Cheung and Slavin (2012) noted that educators need to realize that technology is here to stay and must find ways on how to best incorporate the different types of technology to supplement student instruction. According to Atkinson and Fletcher, "the benefit of technology most often cited has been the capacity to completely individualize the pace and level of instruction to the needs of each child" (as cited in Cheung & Slavin, 2012, p. 7). Using electronic media with children aids the rethinking of education (Guernsey, 2012). A research study conducted by Guernsey, Levine, Chiong, and Severns (2012) found that well-thought out and executed use of technologies can aid children who are failing to reach satisfactory performance during their early reading assessments.

Ken Kay, CEO of EdLeader21 stated that "Today's students need critical thinking and problem-solving skills not just to solve the problems of their current jobs, but to meet the

challenges of adapting to our constantly changing workforce" (as cited in National Education Association, n.d., p. 6). "Effective technology integration must happen across the curriculum in ways that research shows deepen and enhance the learning process" (Edutopia, 2008, n.p.) According to Ritz (2009), "To develop meaningful instructional programs for technology education, goals need to be in place to direct the outcomes of curriculum development and teaching. Goals provide direction so content can be delivered for long-term impact to students who study the subject" (p. 50). Experimental studies indicate that when children interact and talk with their parents, interaction is reduced when the television is always on; however, other studies indicate that children who used educational media helps increase language development (Guernsey, 2012).

A study conducted by Ogura, Coco, and Bulat (2007) found that even the most severely handicapped students are attracted to technology. Significant gains were noted in the study using LeapPads in The Literacy Center. Due to students' high engagement using the LeapPads, there was fewer behavioral problems and an increase in social awareness and responsibility.

*I*station reading program

The Texas Education Agency and Education Service Center (ESC), Region 20, offer the *I*station Reading and Think Through Math programs for students in third through eighth grades via the state-funded program called Texas SUCCESS. *I*station Reading is a computer-based flexible informational system that supplies research-based reading instruction. Think Through Math is a flexible online educational program that expands students' comprehension of essential mathematics ideas and problem-solving abilities (Texas Education Agency & Education Service Center, Region 20, 2014).

Matheson, Torgesen, and Herron (2014) reported that the *I*station reading program for early reading (Pre-K through 3rd grade) consists of phonemic awareness, alphabetic knowledge, vocabulary, comprehension, and fluency. It provides unique instruction, depending on the needs of each child, inclusive with age-appropriate content suited for Pre-K through high school students. "*I*station's Indicators of Progress (ISIP) is a sophisticated Internet- and Web-delivered computer-adaptive testing system that provides continuous progress monitoring assessments in the critical domains of reading in prekindergarten through eighth grade" (Patarapichayatham, 2014, p. 3). *I*station was formerly known as Imagination Station. This program is now used in elementary school districts as a remedial reading program for students who struggle with reading (Florida Center for Research, 2006).

*I*station has been the subject of research studies. During 2003-2004, a research project took place in the Chambersburg area school district in Pennsylvania in collaboration with Shippensburg University to study the *I*station program effects, using nine kindergarten classrooms. The data were provided by Chambersburg Area School District in Pennsylvania in the spring of 2004. The experimental and comparisons groups were 180 and 384, respectively. The experimental group was asked to use the *I*station at least three-five times per week for 30 minutes during each sitting while the comparison group was provided with the regular language arts curriculum and some teacher intervention strategies. The Florida Center for Reading Research (2006) further reports that all students were issued benchmark assessments three times throughout the year. Students' progress was overseen for those needing monitoring regularly. At the beginning, only students enrolled in the Title I schools took part in the experiment, but as the year went on, non-Title I schools also had their students who were low-performing use the *I*station program. The results of the study showed significant improvements made by the

experimental group in three of the four measured areas. The gains made by the experimental group were from September to May in the areas of Letter Naming Fluency (LNF), Phoneme Segmentation Fluency (PSF), and Nonsense Word Fluency (NWF). The researcher noted that due to the lack of random assignment, the results could not be attributed to the *I*station program alone (Florida Center for Reading Research, 2006).

A study in 2003-2004 conducted in Fort Worth, Texas funded under the Texas Application Readiness GRANTS for Empowering Texas (TARGET), was applied in 14 poverty-stricken schools in grades kindergarten through second grade. The study involved 4,337 students and 231 teachers, who implemented the Imagination Station (*I*station) as the main activity, and utilized other services such as visits from curriculum coaches, training in technology, and varied programs pertaining to reading. TARGET's assessment of the effect of *I*station activities on reading success by the learner was done comparing examination scores of two matched, randomly assigned groups of students. The randomly assigned groups of students were as follows: (1) the *I*station students, and (2) students using other interventions. Texas Primary Reading Inventory (TPRI) scores and the recommendation of the teacher of students to use *I*station were the criteria used in identifying the 1722 students for this experimental design. From the 1722 students, 862 were chosen from the TARGET study to follow in the assessing and implementation regarding the effectiveness of the program. The students were paired within the classroom by means of using their socioeconomic status, gender, origin, language skills, and beginning TPRI scores and then assigned at random to one of the two groups (experimental or control). The progress of pre-determined reading levels (tiers), reading scores, Stanford 10 (SAT 10), and TPRI were used to measure the outcomes in the Fort Worth, Texas study. The *I*station recommended implementation of 90 minutes per week did not take place in the fall due to the

late start, however, by spring semester; an average of 85 minutes per week per student was implemented equal to the range of 63 to 112 minutes. Three 30-minute weekly sessions by the control group engaged in other interventions, such as Lexia TPRI intervention activities, Read Well, My Reading Coach, Voyager Passport, SOAR to Success, and 100 Easy Lessons (Florida Center for Reading Research, 2006). The *I*station group was noted to have significantly greater gains than participants in the control group. The TPRI scores taken from the beginning and end of year, and the end of the year SAT 10 reading scores, showed a positive effect on the reading skills in the TARGET study. Kindergarteners using the *I*station met the screening and intellectual capacity measures at 4% and 2%, in that order, more than the control group. First graders in the *I*station group met the screening criteria, comprehension criteria, and words per minute at 2%, 4%, and 3%, in that order, in comparison to the control group. Second graders from the *I*station group progressed in the same way as the control group from the beginning of the school year to the end of the year; however, the *I*station group showed gains in the percentage of students who met the words per minute criteria by 2% in comparison to the control group. The Florida Center for Reading Research (2006), stated that no major effect was studied on the reading capability overall as measured by the SAT 10 in the Fort Worth, Texas TARGET research.

In a study conducted in 2009 by *I*station, "data from *I*station's indicators of Progress (ISIP), Early Reading have been shown to be valid and reliable" (Mathes, 2010, p.3). Torgesen (2004) stated that educators "... now have tools that reliably identify the children who are likely destined for early reading failure. Given the results of a number of intervention studies, researchers say that if we intervene early, intensively, and appropriately, we can provide these

children with the early reading skills that can prevent almost all of them from ever entering a downward spiral (p. 2).

According to Mathes, Torgesen, and Herron (2014), "the ISIP Early Reading is intended to (a) detect children susceptible to having reading problems, (b) offer a check of developmental skills on a continuous basis that can be predictors of later reading achievement, and (c) provide instant and regular connections of evaluation statistics toward learning needs, which makes it easier for differentiated lessons" (p. 1-1).

In a nation that calls for more and more state of the art expertise of its citizens, it cannot be expressed sufficiently that teaching each child to become literate is by no means an option; it is merely an indispensible thing. In any instructional design, for assessment data to alter teaching and student outcomes, instruction should be appropriate (Mathes, Torgesen, & Herron, 2014).

Many schools are now using technology with great success and finding significant effects on their students' skill development. Some education reformers dispute that the standard curriculum is adequate: schools have to offer students with a wider set of 21st century abilities to be successful in a rapid growing technology-infused world (Jerald, 2009). Children need to be prepared for a continually evolving nation and workforce. "Media use by preschool children is not by itself the critical concern, but that, especially for children at risk, technology's potential to be a game changer will not be reached unless vital new supports for parents and educators are established" (Guernsey, Levine, Chiong, & Severns, 2012, p. 21).

The research findings were that internet-based curriculum does provide some assistance towards increasing basic reading skills and offers precise teaching in significant fields expanding reading, includes a well-thought-out scope and sequence, and the chance to practice proficiency towards every competence (Florida Center for Reading Research, 2006).

Summary

In conclusion, the literature review provided in this chapter supported the need to improve literacy skills within the educational system. The legislative history pertaining to different programs, and the reason that funding is allotted to these different programs, is covered in this chapter.

Chapter III

METHOD

Introduction

The study employed a mixed methods design. Creswell and Clark (2011) described mixed methods as being a design in which the researcher collects, analyzes, and mixes both quantitative and qualitative data at some stage of the research process within a single study in an attempt to better understand a research problem. The rationale for mixing is that neither quantitative nor qualitative methods are sufficient by themselves to capture the trends or details of the situation, such as outcomes of third-grade reading scores in a state assessment test. When used in combination, quantitative and qualitative methods complement each other and allow for a complete analysis and are advantageous when understanding the research problem (Creswell & Clark, 2011).

The primary purpose of the study was to examine the impact of the *I*station reading program on reading achievement of third-grade students in an urban school district in south Texas. The secondary purpose of the study was to document the perspectives of third grade teachers regarding the effectiveness of the *I*station reading program. The study was guided by the following research questions:

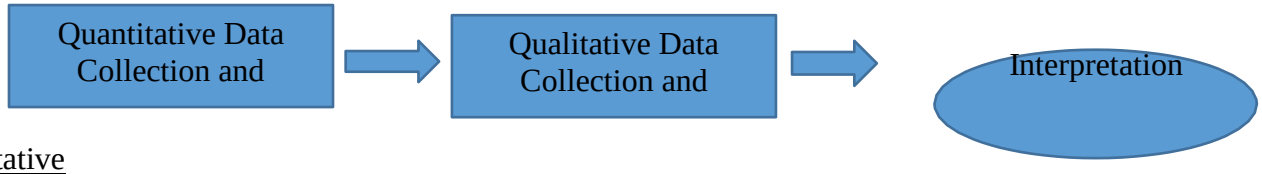
1. How do third grade students using the *I*station reading program perform in standardized reading achievement compared to students who do not use the program?
2. What are the perspectives of third grade reading educators regarding the effectiveness of the *I*station program?

Research Design

The study employed an Explanatory Sequential mixed methods design, which is a two-step process (Cresswell & Clark, 2011). The researcher collected and analyzed the quantitative data, followed by collecting and analyzing the qualitative data, and concluded by interpreting and synthesizing all results. The design is depicted in Figure 1.

Figure 1

Explanatory Sequential Design



Quantitative

The quantitative component of the study utilized an ex post facto, causal-comparative design (Gall, M., Gall, J. & Borg, 2007). In ex post facto research, unlike true experiments, the independent variable has already been applied; therefore, it is considered retrospective in nature. There may be no causal inferences drawn due to the non-experimental nature of ex post facto studies. A causal-comparative study is "designed to investigate cause-and-effect relationships without manipulating the independent variable" (Ravid, 2010, p. 15). According to Kraska-Miller (2014), the researcher does not have control over the independent variable; thus, the relationship is suggestive rather than proven.

For the purpose of the study, the characteristic-present group consisted of a non-probability sample of third graders who had used the *I*station reading program. The comparison group was a non-probability sample of third graders who had not used the *I*station reading program. The outcome measure, the dependent variable, was the state reading assessment for third graders.

Qualitative

For the qualitative component of the study, a focus group was conducted to collect the data which were used to document the perspectives of a group of teachers regarding the effectiveness of the *I*station reading program. According to Gibbs (1997), the main purpose of focus group research is to draw out respondents' attitudes, feelings, and beliefs within a group context which may be useful in better understanding the quantitative data and results. Marshall and Rossman (2011) defined focus groups as a way to provide a low cost and quick method to gain information through interviewing several people at one point in time.

Intervention

According to the Texas Success Training (2013), the *I*station program has four components: (1) assessments that are individualized and automatically available in about 30 minutes or less, (2) instruction, (3) reports which provide regular data, and (4) teacher tools. Assessments are categorized as Early Reading (PK-3), consisting of phonemic awareness, vocabulary, and letter knowledge. For students in kindergarten, in addition to the abovementioned, listening comprehension is also added. In first and second grades, all objectives are covered and alphabetic decoding is additional. Third grade covers spelling, vocabulary, connected text fluency, and comprehension. The advanced assessment is for grades four through eight. "Word Analysis (Orthographic Representation), Fluency (Text Fluency Maze - 2 minutes 30 seconds - cloze passage), Vocabulary (General and Content), and Comprehension (Main Idea, Inference, Cause and Effect, and Critical Judgment)" are assessed in the advanced portion of *I*station (Texas Success Training, 2013, p. 1). Teacher tools contain over 2,000 lessons for both face-to-face and smart boards, changing according to the level of difficulty (Texas Success Training, 2013).

New assessments are automatically administered on the first day of each month and the level of difficulty increases systematically. Students constantly see "assessment in progress" (Texas Success Training, 2013, p. 1). All *I*station evaluations are timed and the program provides a report of students who had inactive periods or terminated the program. For instance, one assessment affords students four minutes and 30 seconds to read a passage. If the student does not finish reading the passage, then the student is moved on. The student cannot return to the passage to seek the answers, rather, s/he can only refer back to the instruction sessions. The *I*station program presents this situation in an attempt to determine if students are building the skills needed to become proficient readers. The program does provide extended time, which is granted with teacher permission and training, in order to allow the students to pause for "think time" (Texas Success Training, 2013, p.1). According to the Texas Success Training (2013), the recommended usage for each session is 25 minutes. As students advance in the program, monitoring takes place too. It is recommended that the extra time for tier one takes place at least one time a week for 30 minutes. For students in tier two, an additional time should be provided, which is recommended to be at least two days a week for 30 minutes each time. Students in tier three require at least three days during a week with at least 30 minutes or more during each time for a total of 90 minutes or more. Instructional sessions include 12 cycles. The cycles contain earth science, some mathematics and science content passages, with teachers able to choose between narrative or expository. The majority of the passages are high level expository in science. In 2013, new materials were added. There are now over 15 cycles after the *I*station Indicators of Progress (ISIP) assessment, which include the 6+1 traits, persuasive essays, expository, and narrative materials in the writing rules. Social studies skills, tailored for older students who are more advanced, are included in a lesson called Timeless Tales. Also added in

2013 was: "The training center, improved Interactive User's Guide, *I*station Home (which allows for choice, and the Teacher Station (which allows teachers to choose the type of instruction or lessons by category" (Texas Success Training, 2013, p. 1).

*I*station provides reports which can help teachers assess students, namely, (1) ISIP Summary Report, (2) Priority Report, (3) Student Summary Handout Report, and (4) Executive Report. According to *I*station Demo Reports (2013), the Summary Report allows one to see individual classrooms at a glance, for example, the skills assessed, the overall ability of the student, the overall tier, and the skill tier for each skill assessed. This report should be viewed on a monthly basis, or as often as each student is assessed in order to focus on the student's intervention needs.

The Priority Report groups students according to their needs and provides suggestions for recommended intervention for those students. The Priority Report lists the students who require further intervention, and the skill(s) that each individual student is struggling with. The program provides suggestions for intervention lessons that can be used with struggling students in either face-to-face, small group, or individual instruction, using *I*station's suggested printable intervention lessons. This report is crucial because it signals the importance for immediate intervention with the struggling student(s). The report displays curriculum status symbols indicating the following: (1) some difficulty, signifying that a student is demonstrating some weakness with a certain skill; (2) ongoing difficulty, showing that the student is continuing to demonstrate some weaknesses within a given skill; (3) struggling, suggesting that the student is demonstrating a substantial weakness within the skill; and (4) ongoing struggle, noting that the student continues to demonstrate a major weakness within the skill. In the Priority Report, there is a section in which the teacher can add notes to indicate the type of intervention lessons used,

which can later be used by the teacher. This report can be beneficial when additional documentation is required to show the types of intervention strategies used with struggling students. It is recommended that teachers check this report at least once a week (*I*station Demo Reports, 2013).

According to *I*station Demo Reports (2013), the Student Summary Handout is a report that assesses the growth and skills of each individual student's ability, the overall tier, and the skill tier of each skill assessed. This report is beneficial to discuss the progress and growth over time when conducting parent/teacher conferences, Response to Intervention (RTI), Admission Review and Dismissal (ARD)/Individual Education Plan (IEP) meetings, 504 and teacher-student meetings, to name a few. This report should be reviewed at least on a monthly basis.

"The Executive Summary Report combines both *I*station's Indicator of Progress (ISIP) summary and the ISIP skill growth by tiers at a campus level. This report shows the number and the percentage of students at each instructional tier by grade for the current month. Skills assessed and the progress made by the student through the current month as measured against the performance goals can also be found in this report" (*I*station Demo Reports, 2013, p. 2). *I*station recommends that this report be viewed on a monthly basis.

Subject Selection

Quantitative

The setting for the study was a Title I elementary school in South Texas, which was introduced in Chapter I. For the quantitative component of the study, there were 102 third grade students who had been using the *I*station reading program during the 2013-2014 school year and 109 third grade students who had not used the *I*station reading program during the 2012-2013 school year. The study was delimited to 3rd graders because the *I*station reading program was

implemented in this grade level during the 2013-2014 school year in the school district in which the study took place.

Qualitative

A non-probability sample of seven third grade teachers agreed to participate in the focus group. Permission to conduct the study was obtained from the Institutional Review Board at Texas A&M University-Corpus Christi and the school district (Appendix A).

Instrumentation

Quantitative

According to the Texas Education Agency (The State of Texas News: Texas Education Agency, 2013), under House Bill 5 (HB 5), passed by the 83rd Texas Legislature and signed by the Governor, the Texas Assessment of Knowledge and Skills (TAKS) was replaced by the State of Texas Assessments of Academic Readiness (STAAR) in the 2011-2012 academic year. The STAAR is based on the Texas Essential Knowledge and Skills (TEKS) and measures readiness standards in various topics.

The third-grade STAAR reading assessment test contains three reporting categories: (1) Understanding Across Genres (six questions), (2) Understanding and Analysis of Literary Texts (18 questions), and (3) Understanding and Analysis of Informational Texts (16 questions). In the first category, there is only one subcomponent, which deals with reading/vocabulary development. In the second category, there are eight subcomponents: (1) Reading/Beginning Reading/Strategies, (2) Reading/Comprehension of Literary Text/Theme and Genre, (3) Reading/Comprehension of Literary Text/Poetry, (4) Reading/Comprehension of Literary Text/Fiction, (5) Reading/Comprehension of Literary Text/Literary Nonfiction, (6) Reading/Comprehension of Literary Text/Sensory, (7) Reading/Media Literacy; and (8)

Reading/Comprehension Skills. In the last category, there are five subcomponents: (1) Reading/Comprehension of Informational Text/Culture and History, (2) Reading/Comprehension of Informational Text/Expository Text, (3) Reading/Comprehension of Informational Text/Procedural Texts, (4) Reading/Media Literacy, and (5) Reading/Comprehension Skills.

Qualitative

Focus group qualitative data were analyzed to document the perspectives of reading teachers regarding the pros and cons of the *I*station. The lead questions for the focus group included the following:

(1) In what ways do you believe *I*station reading program may impact the reading achievement of third-grade students?

(2) How many times per week was the *I*station reading program used?

(3) How long was each student provided with the *I*station reading program?

(4) Did you have to alter your teaching methods to accommodate the *I*station reading program?

(5) What were the pros of using the *I*station reading program?

(6) What were the cons of using the *I*station reading program?

Data Collection

Quantitative

Quantitative data were obtained from the school district in which the study took place and from the Texas Education Agency scores. Specifically, raw STAAR reading assessment data as well as demographic data on gender, ethnicity, and socio-economic status of the study participants were received from the Office of Academic Assessments (OAA).

Qualitative

The focus group was used to gather the qualitative data. The researcher was the moderator. The session was audio-taped and later transcribed by the researcher. All participants signed a consent form (Appendix B).

Data Analysis

Quantitative

The quantitative data were coded and entered into the computer. Descriptive statistics were used to summarize and organize the data. The proportion of the total number of test questions answered correctly to the total number of questions were used to measure achievement in reading in each STAAR category. Levene's F was used to test the homogeneity of variances assumption (Field, 2013). Pearson-Product Moment Correlation Coefficient (Field, 2013) was employed to assess the bivariate relationships between STAAR category scores. A multivariate analysis of variance (MANOVA) was performed to test whether there were statistically significant mean differences between the characteristic-present and comparison groups. According to Field (2013), MANOVA is a type of multivariate analysis used to analyze data that involve more than one dependent variable at a time. Box's M was used to test the equality of covariance matrices assumption. Mean difference effect sizes were used to examine the practical significance of the findings. Specifically, Cohen's d was computed and described as .2 = small, .5 = medium, and .8 = large (Cohen, 1988).

Qualitative

The transcripts of the focus group interview content were analyzed. Specifically, the following steps were performed: (1) getting a sense of the whole by reading the transcription carefully, (2) identifying text segments with brackets, (3) assigning a code word or phrase to

describe the meaning of the text segment, (4) making a list and grouping the code word, (5) reviewing the transcription, and (6) reducing the codes to themes, which are similar codes put together, forming the major ideas of the transcription (Creswell, 2005).

Chapter IV

RESULTS

The purpose of the causal-comparative study was to examine the impact of the *I*station reading program on academic achievement in reading. The study was delimited to 3rd graders. The setting was an elementary school in south Texas. Standardized reading achievement was measured by the STAAR. The study's hypothesis was that students who used the *I*station reading program would score higher on the third grade standardized reading achievement than did the students who had not used the *I*station reading program. The study was guided by the following research questions:

1. How do third grade students using the *I*station reading program perform in standardized reading achievement compared to students who do not use the program?
2. What are the perspectives of third grade reading educators regarding the effectiveness of the *I*station program?

Quantitative Results

The quantitative data were obtained from the school district, coded, entered into the computer, and analyzed by using the Statistical Package for the Social Sciences (SPSS). The demographic data were obtained for the following variables: gender, ethnicity (Hispanic or Non-Hispanic), socio-economic status, at-risk status, and bilingual status. There were very few Non-Hispanics; thus, the study was delimited to Hispanics in an attempt to control ethnicity as a confounding variable. Descriptive statistics, Multivariate Analysis of Variance (MANOVA), and mean difference effect sizes were used to analyze the data. The level of significance was set, a priori, at 0.01.

A Profile of Subjects

The *I*station and comparison groups consisted of 102 and 109 Hispanic 3rd graders, respectively. In the *I*station group, there were more females (57.80%, n=59) than males (42.20%, n=43), while in the comparison group, there were more males (50.50%, n=55) than females (49.50%, n=54). The overwhelming majority of the students in both the *I*station and the comparison groups were economically disadvantaged, at-risk, and bilingual. Results are summarized in Table 1.

Table 1
A profile of Subjects

	*I*station Group (n = 102)		Comparison Group (n = 109)	
Demographic Characteristic	f	%	f	%
Gender				
Female	59	57.80	54	49.50
Male	43	42.20	55	50.50
Socio-economic Status				
Economically Disadvantaged	101	99.00	107	98.20
Not Economically Disadvantaged	1	1.00	2	1.80
At-risk				
Yes	94	92.20	90	82.60
No	6	5.90	12	11.00
Missing Data	2	2.00	7	6.40
Bilingual				
Yes	89	87.30	87	79.80
No	13	12.70	22	20.20

The outcome measures were STAAR Reporting Categories for Reading, namely, Category 1: Understanding across Genres (6 questions), Category 2: Understanding and Analysis of Literary Texts (18 questions), and Category 3: Understanding and Analysis of Informational Texts (16 questions).

Academic achievement in reading was measured by the proportion of correct answers to total questions in each of the three Reporting Categories. The means and standard deviations for the reading category scores are shown in Table 2.

Table 2
STAAR Reading Achievement Measures

	*I*station Group (n=102)		Comparison Group (n=109)	
STAAR Reporting Category	M*	SD	M*	SD
Reading Category 1	.55	.28	0.48	0.26
Reading Category 2	.57	.20	0.47	0.20
Reading Category 3	.53	.22	0.49	0.22

*Proportion of Correct answers
Note: Reading Category 1: Understanding across Genres
Reading Category 2: Understanding and Analysis of Literary Texts
Reading Category 3: Understanding and Analysis of Information Texts

The homogeneity of variances assumption, as tested by the Leven's F test, was met for all outcome measures. Results are summarized in Table 3.

Table 3

Homogeneity of Variances Assumption, STAAR Reading Achievement Measures

STAAR Reporting Category	df1	df2	Levene's F	p
Reading Category 1	1	209	3.58	0.06
Reading Category 2	1	209	0.71	0.71
Reading Category 3	1	209	0.24	0.24

Note: Reading Category 1: Understanding across Genres
Reading Category 2: Understanding and Analysis of Literary Texts
Reading Category 3: Understanding and Analysis of Information Texts

The Reading Reporting Category test scores were correlated with each other. All associations were statistically significant at the 0.01 level. Results are shown in Table 4.

Table 4

Correlation Matrix for STAAR Reading Category Scores

	Reading Score 1	Reading Score 2	Reading Score 3
Reading Score 1	1.00		
Reading Score 2	0.71*	1.00	
Reading Score 3	0.60*	0.65*	1.00

*p<.01

Since the reading achievement scores were correlated with each other, a MANOVA was used to compare the *I*station and comparison groups on the basis of the group centroids. The assumption of equality of covariance matrices assumption was met (*Box's M* = 7.42, *p* = 0.29). The MANOVA showed that the group differences were statistically significant, favoring the *I*station group, *Wilks Λ*=0.93, $F(3, 207) = 5.20$, $p < .01$. The post hoc analyses showed that the *I*station group outperformed the comparison group on the basis of Reading Category 2: Understanding and Analysis of Literary Texts. Group differences on the basis of the other reading scores were not statistically significant. Results are summarized in Table 5.

Table 5

Post Hoc Analysis, STAAR Reading Achievement Measures

STAAR Reporting Category	SS	df	MS	F
Reading 1	0.30	1	0.30	4.07
Reading 2	0.52	1	0.52	13.00*
Reading 3	0.05	1	0.05	1.21

*p<.01
Note: Reading Category 1: Understanding across Genres
Reading Category 2: Understanding and Analysis of Literary Texts
Reading Category 3: Understanding and Analysis of Information Texts

Mean difference effect sizes, as computed by Cohen's d, were used to examine the practical significance of the findings. The effect sizes ranged from 0.15 to 0.50. The largest effect size belonged to Reading Category 2: Understanding and Analysis of Literary Texts, favoring the *I*station group. Results are summarized in Table 6.

Table 6

Mean Difference Effect Sizes, STAAR Reading Achievement Measures

STAAR Reporting Category	Mean Difference	p	Effect Size*
Reading 1	0.08	0.04	0.28
Reading 2	0.10	< 0.01	0.50
Reading 3	0.03	0.27	0.15

* 0.20 = small effect, 0.50 = medium effect, >0.80 = large effect
Note: Reading Category 1: Understanding across Genres
Reading Category 2: Understanding and Analysis of Literary Texts
Reading Category 3: Understanding and Analysis of Information Texts

Summary of Quantitative Results

Multivariate and univariate analyses of the data showed that the third graders who used the *I*station reading program scored higher in the STAAR Reading Category 2: Understanding and Analysis of Literary Texts, compared to the comparison group. Group differences on the basis of the Reading Category 1: Understanding across Genres and Reading Category 3: Understanding and Analysis of Information Texts were not statistically significant.

Qualitative Results

The qualitative component of the explanatory sequential mixed methods model (Creswell & Plano Clark, 2011) was utilized for the purpose of addressing the study's second research question (What are the perspectives of third grade reading educators regarding the effectiveness of the *I*station program?) and explaining the quantitative results in greater depth. The

quantitative data were collected, analyzed, and deciphered which were used in formulating the lead questions for the focus group which was conducted in order to obtain the qualitative data. The lead questions were:

- In what ways do you believe *I*station reading program may impact the reading achievement of third-grade students?
- How many times per week was the *I*station reading program used?
- How long was each student provided with the *I*station reading program?
- Did you have to alter your teaching methods to accommodate the *I*station reading program?
- What were the pros of using the *I*station reading program?
- What were the cons of using the *I*station reading program?

Profile of Subjects

To recruit the participants, the researcher placed a flyer in the third grade teachers' mailboxes, sent out emails, and followed up with phone calls. All who had taught third grade during the 2012-2013 and 2013-2014 school years were invited to participate. Only one teacher declined the invitation to participate in the study. The focus group consisted of seven teachers who had taught at the third grade. Five were of Hispanic origin and one was Anglo-Saxon with a Spanish last name by marriage, who agreed to be audio-tape. There was one other third grade teacher, also of Hispanic origin, who wanted to provide input but could not attend the focus group due to having other commitments.

Participant number one, in the 31-40 years age-group, was a third grade teacher who had been teaching for approximately eight years and was of Hispanic heritage. She had taught first grade for one year, second grade for two years, and third grade for six years.

Participant number two, in the 51-60 years age-group, was a third grade teacher who had been teaching for approximately 26. She had taught third grade for two years, fourth grade for three years, fifth grade for fifteen years, and sixth grade for six years. She was an Anglo-Saxon with a Hispanic last name stemming from her marital status.

Participant number three, a Hispanic in the 31-40 years age-group, had been teaching for approximately five years. She had taught third grade for three years and was in her second year of teaching fourth grade.

Participant number four, a Hispanic in the 41-50 years age-group, had been teaching for approximately 12 years. She had taught Special Education at 3rd, 4th, and 5th grades for nearly eight years, third grade bilingual for two years, and was in her second year as a kindergarten teacher at the time of participating in the focus group.

Participant number five, a Mexican-American in the 31-40 years age-group, had been teaching for approximately 14 years. She had taught third grade for 10 years, second grade for two years, and Pre-K for one year. At the time of her participation in the focus group, she was teaching in two combined grade levels, fourth and fifth grades.

Participant number six, a Hispanic in the 51-60 years age-group, was a third grade teacher with six years of teaching experience. She had previously held a paraprofessional position with the school district for 14 years.

Participant number seven could not attend the focus group but provided the researcher in writing with her answers to the lead questions. She was a bilingual teacher with 33 years of experience. Specifically, she had taught Pre-K for three years, kindergarten for 10 years, first grade for 10 years, second grade for three years, and third grade for seven years. She was a Hispanic in the 51-60 years age-group.

Focus Group Process

The focus group was conducted after school on April 24, 2015, in the library at a title I campus in Corpus Christi, Texas. The principal investigator explained to the participants the purpose of the focus group, assured them of the confidentiality of their responses, informed them that they could opt out of the study at any given time, and answered their questions. All agreed to be audio-taped and signed a consent form. The researcher served as the recorder, note-taker, and mediator. She encouraged open discussion. The transcript of the focus group, done by the researcher, is in Appendix C.

The Coding Process

The qualitative data were transcribed. The second step was to read the transcribed notes, decipher it, and assign codes. "A code in qualitative inquiry is most often a word or short phrase that symbolically assigns a summative, salient, essence-capturing, and/or evocative attribute for a portion of language-based or visual data" (Saldana, 2009, p. 3). The following codes were derived (Table 7).

Table 7

Codes for *I*station Reading Program Qualitative Data

Code 1	*I*station Software Capability
Code 2	*I*station Resources
Code 3	*I*station Deficiencies
Code 4	Extraneous Variables

Focus Group Results

The first theme, *Chronicles,* was developed as a result of comments regarding the use and acceptance of the *I*station reports. The *I*station reading program provides access to reports that teachers can access to view any progress, or lack thereof, students are attaining. According to participant 5, "you could actually see the growth and the decline of that one month and then you start seeing the growth again." Participant 2 responded by saying, "yeah, from when they were out of school just for two weeks." Participant 2 said that she printed out a copy of the report (she could not remember the name of that one particular report) and would be placing it in each student's cumulative folder at the end of the year so that the teacher in the next grade level (or same grade level) can determine what learning tier level the student had achieved in third grade and start the student at that reading tier. Participant 4 stated that she had also used that particular report to send home to parents on a monthly basis for their review of the reading progress of their children. One other report, as noted by participant 2, "will tell you how many minutes the kids had," referring to the amount of time students are actually engaged, using the *Istation* reading program or if there is idle time. Three other participants agreed by stating, "yeah." Theme 1 is summarized in Table 8.

Table 8

Theme 1: Chronicles

Theme 1 Chronicles
• "you know, I like the reports" • "I like the reports as well" • "I did see, uh, increase in their reading levels" • "and it's easier to track their gains" • "you could actually see the, the growth and that decline of that one month and then you start seeing the growth again" • "yeah, from when they were out of school just for two weeks" • "parents could access it from home..."

As the researcher continued to review and analyze the transcript, the second theme, *Simplicity*, was derived. This theme originated from the participants' statements that "their passwords were, like, really simple." The rest of the participants interjected by agreeing and stating, "yes." One participant, who had taught third grade in the past but was a kindergarten teacher at the time of participating in the focus group, referenced the simplicity of the programs because even her kindergarten students were able to log in and out by themselves, were able to distinguish between "the color blends out of recognition," and were "already going into the vocabulary comprehension." The participants acknowledge that this program was originally intended to target students with Attention Deficit Disorder (ADD)/Attention Deficit Hyperactivity Disorder (ADHD), and hold their interest in the program through the "bright and colorful" graphics the program utilizes. However, some participants felt that this was more of a negative effect for their students while others stated that their students "were the ones that liked it the most - they were the ones that would always ask if they could get on it rather than Think Through Math, or any other program that educates kids." Theme 2 is summarized in Table 9.

Table 9

Theme 2: Simplicity

Theme 2 Simplicity
• "yes, so we don't have to go in there or depend on someone to manually enter them" • "Yeah" • "and their passwords were like really simple" • "make the easy lessons for them" • "um, hum" • "yeah" • "they log on by themselves, I have one or two of course, the ones that are…that log on by themselves, I mean, they know, they're the ones that couldn't even spell their names they were already logging on themselves"

As the transcription was continued to be analyzed by the researcher, the third theme, *Augmentation*, was derived. The reason that this theme came about was the numerous responses provided by the focus group regarding the gains demonstrated on the reports by the students. Participants 2, 3, and 4 had noticed increases in different *I*station tiers and in the STAAR testing. Participant 2 stated, ".... compare to where they are at the end of the year and for the most part, I did see, uh, increase in their reading levels." Participant 3 said, "30% for me." Participant 4 simply acknowledged the statements by stating, "uh-huh, yeah." Participant 1 stated that, "it's easier to track their gains because they reassess them every month," while all other participants simply stated "uh, huh, yeah." Table 10 depicts the third theme.

Table 10

Theme 3: *Augmentation*

Theme 3 Augmentation
• "and going back to the scores real quick, I know, uh, it's not the same group of kids, but our scores did go up in 3rd grade…" • "yes" • "oh, it went up 15 points from the prior year" • "from the 3rd grade STAAR results, the reading and math gain was 15 points for 3rd grade reading and math…yeah, because this was what was the 15" • "so there were gains" • "so there were gains – with the different group of kids of course" • "that's a big gain – uh, hmm" • "And for their comprehension, uh, I, I noticed that, I mean, did see gains in their comprehension…"

Theme 4, *Convenience*, was transpired from the responses regarding the ease by which the *I*station program can be used. Participant 1 stated, "Oh, there's another thing was like, they're automatically entered when they are enrolled…" The *I*station reading program automatically enrolls students into the program, assigns the passwords to the students, and keeps track of assessments for students in each grade level. The program also assesses students on a monthly basis without teachers having to remember when it is time to reassess the student. Theme 4 is summarized in Table 11.

Table 11

Theme 4: Convenience

Theme 4 Convenience
• "you don't have to remember to test them every month. The computer will do it…" • "yeah, uh, huh" • "yes, so we don't have to go in there or depend on someone to manually enter them" • "yes" • "It might be an advantage for them to know their password, username and password. They go in, they log on themselves…" • "and what I like is that you can actually see the growth and decline…"

Theme 5 was named *Parent Accessibility*. There were monthly reports sent out by some focus group participants to notify the parents of their children's increases or decreases due to the use of the *I*station program. Parents were able to examine the report and become aware of any gains or deficiencies their children were making in any given *I*station topic. Some of the reports, according to participant 3, could be viewed by the parents from home. Theme 5 is summarized in Table 12.

Table 12

Theme 5: Parent Accessibility

Theme 5 Parent Accessibility
• "I've also sent that one home monthly" • "uh, huh, I didn't know if the parent had to read it, but I still sent it off" • "oh, yeah" • "and that was the pro and con about it – is that the parents could access it from home…" • "yeah"

As the researcher continued to analyze the transcript, theme 6, *Intervention*, was derived. Some of the responses suggested that the *I*station reports were useful is developing educational intervention. For example, after a student is assessed by the program, tiers are assigned to each student with tier 3 signifying below standards and tier 1 being academically aligned. Intervention lessons were provided as an extension to help the individual student reach his/her academic potential while using the *I*station program. Theme 6 is summarized in Table 13.

Table 13

Theme 6: Intervention

Theme 6 Intervention
• "Yeah, definitely, but that did help and the intervention lessons, I don't know if anybody else used the intervention"
• "Oh, um those were good"
• "Yeah, but I was thinking I might use them with our small group"
• "in school tutors get run off the intervention lessons and provide them with the material" for the small group"
• "yeah, um hmm"
• "That's how they were supposed to be implemented, but…"
• "Yeah, I mean, but, I like how it groups the students by what they need"
• "Uh, hm"
• "like you could make easy lessons for them"
• "And then you could click off once you give them the lesson, you click off"

Theme 7 resulted from the participants' responses that the *I*station program seemed to delight students and keep them engaged; thus, it was named *Students' Delight in*. The program was said to be colorful and entertaining for the students while teaching them through the interactive use of game-like programs. The participants agreed that the "kids seem to like it." Theme 7 is presented in Table 14.

Table 14

Theme 7: Students' Delight in

Theme 7 Students' delight in
• "I notice that they actually like it. They actually work on it as compared to other programs where they get bored and they are just clicking." • "I agree. They seem to be actively engaged." • "Yeah." • "The kids seem to like it" • "I like it" • "See, but like, and for me, my two ADD or ADHD were the ones that liked it the most – they were the ones that would always ask if they could get on it rather than Think Through Math, or any other program that educates the kids"

The participants in the focus group also noted some deficiencies with the *I*station reading program. There appeared to be some extraneous variables that were noted by the participants. Some of the responses included students' boredom with the program, unknown benchmarks, time constraints, not being user friendly for students with disabilities, lack of home computers and/or internet use at home for students, and a lack of *I*station training for staff. In regards to the negative aspects of the program, one participant noted that, "it is actively engaged, but then at the same time, you have the students, uh, that are just uh idle time – they just take too long looking at that one screen or they're doing other things and it records, it records them which is you know, pros in that sense that it records the time that it's idle, so…" Another extraneous variable that was noted by the participants was that they could not tell the gains from the previous year due to the fact that "there's no measure for third grade students." The deficiencies and extraneous variables are summarized in Table 15.

Table 15

Deficiencies and Extraneous Variables

- "I think the gains are like hard to tell, but…"
- We're in third grade so we don't have any test results from last year"
- "So we can't, there's no measure for the third grade students. What I can, uh, look at is their *I*station level at the beginning of the year…"
- "but not everyone has a computer to access it or even internet access"
- "I know one of the hard things is to find 90 minutes for tier 3"
- "The time that they ask you to implement for each tier student – 90 minutes is a long time"
- "well even rotating in class though even if you use it as a station – it's still hard to get those full 90 minutes"
- "and we're not able to get in the times they recommend because of…the restraints"
- "but I did notice, and I think I mentioned it to you earlier, my students that had that – the attention deficit problem, whether it was just ADD or ADHD, they did not seem to do well on it – it couldn't capture their attention, um, and that was what I was led to believe were the kids that it was supposed to appeal to the greatest"
- "yep, I agree"
- "cause those were the ones that – yeah – they became whiners"
- "Every time we had computer lab, do we have to do this?"
- "Can I get off now? How much time is left?"
- "Um, hm – or they would act like they couldn't get in"
- "Uh, huh, I can't log in…"
- "Look, it's twelve minutes already"
- "That's what my, my attention deficit kids would do. If they would be on, they had the head phones, but their eyes would be everywhere else around them"
- "Or they are looking at the screen next to them to see where they were at"
- "Um, just more training on it – I would think, because they kind of threw it on our lap last year and then it was like, ok, go and run with it"

Additionally, the participants were asked to comment of the *I*station group outperforming the comparison group on Category 2 of the STAAR - Understanding and Analysis of Literary Texts). Participant #2 felt that changes in staffing could have been a factor. She stated that departmentalization in the grade level might also have been a factor.

Participant #3 stated that there was more training for the program, which made the teachers knowledgeable as to what the *I*station really had to offer and its capabilities for the students. She felt that they were able to hone in skills needed by the students and that they were able to utilize the lessons and the data provided by the program a lot more due to a better understanding of the *I*station program.

Participant #4 felt that the individualized lessons for students based on their needs made a difference. She stated that the increased trainings and knowledge of the program might account for the difference. She also felt that there were concentrations on individualized student skills, which were provided to students as needed, using the individualized instructions. This participant also stated that there was adequate in-school tutoring available for the students.

Participant #5 stated that the students were reading and answering the questions that the program had provided. She stated that the *I*station program provided plenty of opportunities for students to deal with instruction which helps with the literary texts and the development of new vocabulary. She stated that due to team teaching, departmentalization of various subject matters, and tutorial services, students were provided with an educational environment which enhanced the learning process.

Participant #7 felt the additional intervention program being offered by the district, FastForWord, which she had incorporated for her bilingual students, helped with the scores. She had used this program numerous times throughout the year and was able to observe the increases made by her bilingual students.

Summary of the Qualitative Results

The results showed that there were some pros and cons to using the *I*station program. However, the focus group participants seemed to think that the pros outweighed the cons. The

only setback to the program was that the teachers lacked the appropriate training to successfully implement it, using its full potential. The participants felt that if more training had been provided, the program would have been more beneficial not only to the students, but also for the teachers who would be able to utilize all the resources that the program had to offer. The other concern the participants had was the lack of time needed in order to correctly implement the program according to its design. Overall, the program received favorable ratings by the participants, stating that it offered a lot of positive resources to use with the students along with intervention lessons suggested for individualized instruction.

Chapter V

SUMMARY, CONCLUSIONS, AND DISCUSSION

Introduction

Even though Americans today, in general, possess higher educational skills than those before them, many employers state that they are not able to find sufficient employees who possess the necessary skills in reading, writing, mathematics, and other abilities that are needed for the workplace (Kirsch, Jungeblut, Jenkins, & Kolstad, 2002). The strategic plan for the fiscal years 2011-2014 by the United States Department of Education asks for schools to do a better job in ensuring not only that students graduate in a timely manner, but also that students are prepared for college and a career (U.S. Department of Education strategic plan for fiscal years, 2011-2014).

The United States Department of Education stated 32% of fourth-grade students did not attain the fundamental reading level on a recent nationwide test (National Center for Education Statistics, 2013). Students across Texas districts are being held accountable in all educational subjects and levels. Literacy is one such standard on which students are regularly tested, starting at an early age. State mandated student performance is evaluated starting at the third grade level, and up through high school (Texas Association of School Boards, 2012). An article published by The Annie E. Casey Foundation, 2014 states, "there are many paths to success in life, but they all begin with a strong foundation in health, social-emotional skills and cognitive development" (para. 3, p1).

In this study, a mixed methods inquiry was designed and conducted which involved quantitative and qualitative data to examine the impact of an online software program on standardized reading scores. The study was delimited to 3rd graders. The setting was an

elementary school in south Texas. The study's hypothesis was that students who used the *I*station reading program would score higher on the third grade standardized reading achievement than would the students who had not used the *I*station reading program. The study was guided by the following research questions:

1. How do third grade students using the *I*station reading program perform in standardized reading achievement compared to students who do not use the program?
2. What are the perspectives of third grade reading educators regarding the effectiveness of the *I*station program?

Summary of the Results

The analysis of the quantitative data showed that an overwhelming majority of the students in both the *I*station and the comparison groups were economically disadvantaged, at-risk, and bilingual. The Reading Reporting Category test scores were correlated with each other, and all associations were statistically significant at the 0.01 level. Because the reading achievement scores were correlated with each other, a MANOVA was used to compare the *I*station and comparison groups on the basis of the group centroids. The MANOVA showed that the group differences were statistically significant, favoring the *I*station group, *Wilks* Λ=0.93, $F(3, 207) = 5.20$, $p < .01$. The post hoc analyses showed that the *I*station group outperformed the comparison group on the basis of Reading Category 2: Understanding and Analysis of Literary Texts. Group differences on the basis of the other two Reading Category scores were not statistically significant.

The qualitative component of the explanatory sequential mixed methods was utilized for the purpose of addressing the study's second research question (What are the perspectives of third grade reading educators regarding the effectiveness of the *I*station program?) and

explaining the quantitative results in greater depth. The quantitative results were used to formulate the lead questions which were used to collect the qualitative data from the focus group. The lead questions were:

- In what ways do you believe *I*station reading program may impact the reading achievement of third-grade students?
- How many times per week was the *I*station reading program used?
- How long was each student provided with the *I*station reading program?
- Did you have to alter your teaching methods to accommodate the *I*station reading program?
- What were the pros of using the *I*station reading program?
- What were the cons of using the *I*station reading program?

Conclusions

Academic achievement in reading was measured by the proportion of correct answers to total questions in each of the three reporting categories. Based on the quantitative results, the study's hypothesis was found tenable and it is concluded that the students who used the *I*station reading program scored higher on the third grade standardized reading achievement than did the students who had not used the *I*station reading program. Post hoc results showed that the STAAR category which is affected the most by the *I*station reading program is Understanding and Analysis of Literary Texts.

The qualitative findings showed that there were some pros and cons to using the *I*station program. However, the focus group participants seemed to think that the pros outweighed the cons. The only setback to the program was that the teachers lacked the appropriate training to successfully implement it, using its full potential. The participants felt that if more training had

been provided, the program would have been more beneficial not only to the students, but also for the teachers who could then utilize all the resources that the program had to offer. The other concern the participants had was the lack of time needed to correctly implement the program according to its design. Overall, the program received favorable ratings by the participants in the focus group, stating that it offered many positive resources and intervention lessons that are useful in developing individualized instruction for struggling students.

Discussion

Reading is generally thought to be multidimensional and calls for intellectual processes that operate on numerous distinctive types of abilities that help the reader attain various kinds of reading achievement. The State Department of Education and Bureau of Early Childhood Education and Social Services in Connecticut reported that the development of reading and writing happens when children are able to connect a variation of literacy experiences and interact with persons who are literate (Alleyne, n.d.). The *I*station reading program enforces Vygotsky's theory that students can grow at their own individual pace. The *I*station reading program offers teachers supplemental intervention strategies which can be used with the student who is struggling on a certain reading objective. Some of the suggested *I*station student interventions are worksheets, additional guided practices, detailed teaching and modeling, and independent practices in each and every one of the essential reading sections needed to master a certain skill (Whitfield, 2014). Alleyne indicates that the purpose of a study by The State Department of Education and Bureau of Early Childhood Education and Social Services (n.d.), was to comprehend how children evolve as literacy learners and to offer learners a program of study that engages them without having teacher-led instruction as the focal purpose, similar to Vygotsky's zone of proximal development, ZPD. Vygotsky's ZPD follows the premise that the

way by which a child performs is based on what they could do independently as opposed to they could do with assistance (Vygotsky, 1986). The *I*station reading program allows students to progress through different tiers only after the skills for a particular tier are mastered (Whitfield, 2014). A study conducted by Patarapichayatham (2014) found that under the federal No Child Left Behind Act (2001) and the findings of the National Reading Panel (2000), the *I*station course content study supplied essential and clear guidance in the crucial reading areas of phonics, vocabulary, fluency, phonological and phonemic awareness, and comprehension (Patarapichayatham, 2014).

The study's results were supported by the literature presented in Chapter II. For example, Patarapichayatham's study concluded that there was a very strong correlation between the *I*station reading program and the STAAR reading test scores (Patarapichayatham, 2014). The focus group participants in this study concurred that those students who spent some time using the *I*station curriculum showed significant gains in their reading fluidity. The study results and literature findings both state that educators rely on the assessment and intervention tools from *I*station programs to gain a better understanding of the student's capabilities and deficiencies (Mathes, 2014).

Understanding and analysis of literacy texts was the STAAR category which was affected the most by the *I*station reading program. As Vygotsky's ZPD was being utilized to better understand this particular finding, Piaget's theory was also investigated and seemed to be another theoretical framework which can be used to examine the effectiveness of the *I*station reading program.

Piaget's view on children's cognitive growth focuses on four developmental stages: (1) sensory motor, which starts around birth to two years, during which, they see the world as their

own and not anyone else's; (2) Preoperational stage, which occurs at approximately two to seven years, in which, the child begins to make connections with the world; (3) concrete operational takes place at approximately seven to eleven years and revolves around rules that direct the child to reason; and (4) formal operational, which starts at approximately the age of eleven years old, and enables the individual to solve both concrete and abstract problems logically (Wood & Smith, 2001).

Piaget's theory, as a constructivist viewpoint, is based on individuals' deduction of their surroundings and understanding regardless of what they already know or have experienced. Piaget believed that when children make associations with the world around them, it is probable that they will retain the information better through their own experience than if it is communicated to them (Cook & Cook, 2005). Vygotsky's theory emphasized learning through social interactions while Piaget's focus was on the individual's thought process (Cook & Cook, 2005).

The Matthew Effect is when slow learners lack academically, compared to high achievers; thus, continuing the educational gap (Stanovich, 1986). Research has shown that small group and individualized instructions, centered on a learner's basic ability, may lower the Matthew Effect and enhance reading achievement by altering the instruction to the learner's existing knowledge and skills (*I*station, 2004). Children do not succeed in obtaining the information needed to build vocabulary and to understand how reading material is structured when they become discouraged due to failure at the early reading and writing stages. Reading for significance becomes a possibility when students are given precise instruction in applying an assortment of comprehension reading strategies (*I*station, 2004). Both Piaget and Vygotsky share the belief that through meaningful experiences and activities, children learn better. As

children start to mature, learning from their individual experiences occurs at different times for different individuals. "By gathering assessments across multiple time points, student performance is more likely to reflect actual ability. By using the computer, inaccuracies related to human administration errors are also reduced" (Mathes, Torgesen, & Herron, 2014, pp. 1-3). Technology presents numerous opportunities for students to build interpretations because of their own practices. According to MacKinnon (2002), if the technology is used correctly, "teachers can provide a learning environment that helps expand the conceptual and experiential background of the reader" (p.58). "For assessment data to affect instruction and student outcomes, it must be relevant, reliable, and valid. To be relevant, data must be available on a timely basis and target important skills that are influenced by instruction. To be reliable, there must be a reasonable degree of confidence in the student score. To be valid, the skills assessed must provide information that is related to later reading ability" (Mathes, Torgesen, & Herron, 2014, p. 1-3).

In conclusion, the "*I*station Reading Curriculum is an effective and scientifically-based supplemental reading and intervention program with demonstrated success that targets the five key components of reading" (*I*station, 2004, p.8). According to the National Institute of Child Health and Development (2000), the five key components in reading are: (1) Phonics, (2) Phonemic Awareness, (3) Vocabulary, (4) Fluency, and (5) Reading Comprehension.

Implications

*I*station reading is a research-based literacy program created to fulfill the needs of kindergarten through third grade students who are not proficient in the required coursework. Additionally, *I*station can provide the concerned educators with suggestions on intervening on students' behalf before they are categorized as being below proficient (*I*station, 2006). The study

was conducted because third grade standardized reading scores were below state level in a Title I south Texas school. The students were struggling in acquiring the much needed literacy skills which shape a student's future, both socially and economically. The study found that numerous interventions provided by the campus teachers might have been a contributing factor in the significant increase of the standardized category 2 (Understanding and Analysis of Literary Texts) portion in the reading assessment. The additional training of the third grade teachers in using the *I*station program might have also contributed to the third grade students achieving higher scores in the state's yearly reading assessment. Achieving higher reading scores in third grade increases the likelihood of nurturing of successful and literate citizens. When students are successful in school, not only it is an indicator of academic achievement, but also it can be instrumental in lowering dependency on the government for economic aid and committing law-breaking activities (Jerald, 2007).

Recommendations for Further Research

The study offers opportunities for further studies in that (1) the study was delimited to Hispanic third grade students in a south Texas Title I campus, (2) external validity was limited to participants, (3) the focus group consisted of a non-probability sample of seven third-grade teachers in one south Texas Title I campus, and (4) the study was delimited to the outcome measures in reading. In order to add to the study's generalizability, the researcher suggests the following: (1) replicating the study in other grade levels and/or districts assessed by the state, (2) replicating the study in other states and/or areas of Texas, (3) forming focus groups consisting of students who can provide their perspectives of the program, and (4) studying other outcome measures assessed by the State Assessment of Academic Readiness, such as mathematics, writing, science, and/or social studies. It is also recommended to conduct an experimental study

with three groups: (1) No *I*station, (2) *I*station, and (3) *I*station plus a teacher trained to deliver *I*station's supplemental intervention lessons with achievement in reading as the outcome.

Final Remarks

The study looked at the impact of the *I*station reading program on third-grade standardized reading achievement in a South Texas Title I elementary school setting. The results demonstrated that the *I*station group outperformed the comparison group on the state standardized Reading Category 2: Understanding and Analysis of Literary Texts. The third grade teachers in the focus group stated that the *I*station program, when properly utilized, helped increase the reading assessment scores. Although this study suggests the opportunity for further research, it should be noted that additional campus interventions may also need to be considered as contributing factors when determining the high scores obtained by the *I*station group. The additional campus interventions may include teacher-assessments, teacher-made worksheets which target specific objectives, in-school small group tutoring on a daily basis with a part-time tutor, after school tutoring twice a week with the departmentalized instructor, daily departmentalized classroom instruction, and Saturday school for approximately three hours during a period of three weeks before the STAAR test. The results showing the increase of the recent standardized assessment scores leave one with pondering questions such as whether the different group of students during each academic year may play a role in the increase in student scores. Perhaps the lack of, or the maturity of, the students in each group, or even the possibility that teachers have more time to plan and develop the subject area(s) may be instrumental in increasing academic achievement scores. Whatever the case may be, it can be informative to examine the effectiveness of other potential interventions.

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APPENDIX A

IRB APPROVAL LETTER IRB

CONTINUATION LETTER

DISTRICT APPROVAL LETTER

CAMPUS APPROVAL LETTERS

TEXAS A&M UNIVERSITY
CORPUS CHRISTI

OFFICE OF RESEARCH COMPLIANCE
Division of Research, Commercialization and Outreach

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Human Subjects Protection Program	Institutional Review Board

APPROVAL DATE:	May 6, 2014
TO:	Ms. Rosemary Marin
CC:	Dr. Sherrye Garrett
FROM:	Office of Research Compliance Institutional Review Board
SUBJECT:	Initial Approval

Protocol Number:	#10-14
Title:	The Impact of the istation Reading Program on Reading Achievement of Third Grade Students: A Mixed-Methods Inquiry
Review Category:	Expedited
Expiration Date:	May 6, 2015

Approval determination was based on the following Code of Federal Regulations:

Eligible for Expedited Approval (45 CFR 46.110): Identification of the subjects or their responses (or the remaining procedures involving identification of subjects or their responses) will NOT reasonably place them at risk of criminal or civil liability or be damaging to the their financial standing, employability, insurability, reputation, or be stigmatizing, unless reasonable and appropriate protections will be implemented so that risks related to invasion of privacy and breach of confidentiality are no greater than minimal.

Criteria for Approval has been met (45 CFR 46.111) - The criteria for approval listed in 45 CFR 46.111 have been met (or if previously met, have not changed).

(6) Collection of data from voice, video, digital, or image recordings made for research purposes.

Provisions:	
Comments:	The TAMUCC Human Subjects Protections Program has implemented a post-approval monitoring program. All protocols are subject to selection for post-approval monitoring.

This research project has been approved. As principal investigator, you assume the following responsibilities:

1. Informed Consent: Information must be presented to enable persons to voluntarily decide whether or not to participate in the research project unless otherwise waived.
2. Amendments: Changes to the protocol must be requested by submitting an Amendment Application to the Research Compliance Office for review. The Amendment must be approved by the IRB before being implemented.
3. Continuing Review: The protocol must be renewed each year in order to continue with the research project. A Continuing Review Application, along with required documents must be submitted 45 days before the end of the approval period, to the Research Compliance Office. Failure to do so may result in processing delays and/or non-renewal.
4. Completion Report: Upon completion of the research project (including data analysis and final written papers), a Completion Report must be submitted to the Research Compliance Office.

TEXAS A&M UNIVERSITY
CORPUS CHRISTI

OFFICE OF RESEARCH COMPLIANCE
Division of Research, Commercialization and Outreach

6300 Ocean Drive, Unit 5844
Corpus Christi, Texas 78412
O 361.825.2497 · F 361.825.2755

Human Subjects Protection Program	Institutional Review Board

APPROVAL DATE:	April 21, 2015
TO:	Ms. Rosemary Marin
CC:	Dr. Sherrye Garrett
FROM:	Office of Research Compliance Institutional Review Board
SUBJECT:	Continuation Approval

Protocol Number:	10-14
Title:	The Impact of istation Reading Program on Reading Achievement of Third Grade Students: A Mixed-Methods Inquiry
Review Category:	Expedited
Expiration Date:	May 6, 2016

Approval determination was based on the following Code of Federal Regulations:

Eligible for Expedited Approval (45 CFR 46.110): Identification of the subjects or their responses (or the remaining procedures involving identification of subjects or their responses) will NOT reasonably place them at risk of criminal or civil liability or be damaging to the their financial standing, employability, insurability, reputation, or be stigmatizing, unless reasonable and appropriate protections will be implemented so that risks related to invasion of privacy and breach of confidentiality are no greater than minimal.

Criteria for Approval has been met (45 CFR 46.111) - The criteria for approval listed in 45 CFR 46.111 have been met (or if previously met, have not changed).

(7) Research on individual or group characteristics or behavior (including, but not limited to, research on perception, cognition, motivation, identity, language, communication, cultural beliefs or practices, and social behavior) or research employing survey, interview, oral history, focus group, program evaluation, human factors evaluation, or quality assurance methodologies. (NOTE: Some research in this category may be exempt from the HHS regulations for the protection of human subjects. 45 CFR 46.101(b)(2) and (b)(3). This listing refers only to research that is not exempt.)

Provisions:	
Comments:	The TAMUCC Human Subjects Protections Program has implemented a post-approval monitoring program. All protocols are subject to selection for post-approval monitoring.

This research project has been approved. As principal investigator, you assume the following responsibilities:

1. Informed Consent: Information must be presented to enable persons to voluntarily decide whether or not to participate in the research project unless otherwise waived.

Office of Assessment and Accountability

CORPUS CHRISTI INDEPENDENT SCHOOL DISTRICT

P. O. Box 110 • Corpus Christi, Texas 78403-0110

3130 Highland Avenue • Corpus Christi, Texas 78405

Office: 361-844-0396 • Fax: 361-886-9371

Website: www.ccisd.us

March 21, 2014

Rosemary Marin
4214 Archdale
Corpus Christi, TX 78416

Dear Ms. Marin:

Formal permission is granted to you to conduct your research entitled *The Impact of the iStation Reading Program on Reading Achievement of Third Grade Students: A Mixed-Methods Inquiry* in the Corpus Christi Independent School District (District). This permission indicates that your proposal meets all research/evaluation and FERPA standards.

This permission allows the campuses/principals identified in your proposal the option of participating or not. No campus/principal is required to participate in this study.

It is a pleasure to welcome you to the District as you begin this significant research initiative. At the conclusion of your work, please provide my office with a copy of the results.

Should you need additional assistance during your study or have changes in the proposal, please contact me at 361-844-0396, ext. 44250 and/or via e-mail at James.Gold@ccisd.us.

Sincerely,

James H. Gold

James H. Gold
Executive Director

JHG/mdf

cc: Dr. D. Scott Elliff
Dr. Bernadine Cervantes

ZAVALA ELEMENTARY SCHOOL
Corpus Christi Independent School District
3125 Ruth Street
Corpus Christi, Texas 78405
Ph. 361-878-2720 Fax 361-886-9884
"Soaring High For Success"

Myra Cantu-Gonzalez
Assistant Principal

Jaime Gonzales
Principal

Julissa Segovia
Assistant Principal

Rosemary Marin
4213 Archdale
Corpus Christi, Texas 78416

February 13, 2015

Formal permission is granted to you to conduct your research entitled, "The Impact of the Istation Reading Program on Reading Achievement of Third Grade Students: A Mixed-Methods Inquiry." This includes permission to conduct your focus groups in the Zavala Elementary library.

Please let me know if you need anything else.

Sincerely,

Jaime Gonzales, Principal

ZAVALA ELEMENTARY SCHOOL
Corpus Christi Independent School District
3125 Ruth Street
Corpus Christi, Texas 78405
Ph. 361-878-2720 Fax 361-886-9884
"Soaring High For Success"

Sonia Cantu
Assistant Principal

Christina Barrera
Principal

Rebecca Casas
Assistant Principal

April 2, 2014

Rosemary Marin
4214 Archdale
Corpus Christi, TX 78416

Dear Ms. Marin:

Formal permission is granted to you to conduct your research entitled *The Impact of the iStation Reading Program on Reading Achievement of Third Grade Students: A Mixed-Methods Inquiry.* This includes permission to conduct your focus groups in the Zavala Elementary library.

Please let me know if you need anything else.

Sincerely,

Christina Barrera

Christina Barrera
Zavala Principal

APPENDIX B

FOCUS GROUP CONSENT FORM

Focus Group Informed Consent Form

Date:

Dear third grade, or former third grade, teacher:

I, Rosemary Marin, am currently a Doctoral Candidate in Educational Leadership at Texas A&M University- Corpus Christi. For my dissertation research, I am investigating the effectiveness of the *i*station reading program for 3rd graders.

You are invited to participate in a focus group which will be conducted to collect qualitative data that will be used to complement the quantitative data. The focus group will be audio-taped and later transcribed. Only I and my faculty advisor will have access to the audio-tapes which will be kept in a secure place and destroyed after the transcripts are analyzed. Your highly appreciated participation is entirely voluntary. All individual responses will remain confidential**.** If the results are published or presented at scientific meetings, identity of the participants will not be disclosed. The risk to participate in the study, if any, is minimal. Your participation will not cost you anything and you will not receive any money for your participation. You are free to withdraw your consent and stop participating in the study at any time without penalty or loss of benefits for which you may be entitled.

Voluntary Consent: I certify that I have been informed about the study's purpose, procedures, possible risks and benefits; that I have been given the opportunity to ask questions before I sign; and that I can ask questions at any other time. Rosemary Marin may be contacted at maria.marin@ccisd.us (361-854-2237). Additionally, I know that if I have any questions about my rights as a research participant, I can contact Erin Sherman, Compliance Officer, at Texas A&M University-Corpus Christi at (361) 825-2497. I have received a copy of this form, and by signing it, I voluntarily agree to participate in the study.

I agree to be audio-taped. _____

I do not agree to be audio-taped. _____

_____

Signature of Subject Date

_____

Printed Name of Subject

_____

Signature of Principal Investigator Date

__ _____

Printed Name of Principal Investigator

APPENDIX C

FOCUS GROUP TRANSCRIPT

Researcher	Respondent
Okay. Um, thank you for being part of the focus group, and I want to welcome all of you. This is something that I am doing for my dissertation and the reason we are having this focus group is to obtain your perspectives, your ideas, regarding the effectiveness of the *i*station. Some of you used it last year, uh, rather excuse me, this year and didn't use it last year at all so that's basically what we're comparing to see if it made a difference. Uh, this is for third grade STAAR's reading assessment scores of third graders. I want you to be able to do all the talking, I'm just gonna' be taking notes. I would like for everybody to participate, give me their input. Uh, if I don't hear from you, I might call just by your number to, so that you can give me a response – remember, there's no right or wrong answers at all. Um, everybody's experiences and opinions will be important. You can agree or disagree – it doesn't matter. We want to hear everybody's range of opinions. What is said in this room stays here. We want you to feel comfortable sharing when sensitive issues come up. I'm tape-recording the discussion and I wanna' be able to capture everything that you say as well as on notes. You know, we'll put all of that together on tape. Okay, does anybody have any questions regarding what I'm doing here? (no response). Okay. First of all, we're going to do the round robin method if you, you don't mind." **PI asks 1st question**: "What is your observation regarding the use of the istation reading program by your students? What did you observe your students to do with the *i*station? Did…"	
	Participant #3: "I noticed that they actually like it. They actually work on it as compared to other programs where they get bored and they are just clicking.

	Participant #1: " I agree. They seem to be actively engaged."
	Participant #2: "Yeah."
PI: "So, everybody is in agreement that they had a good outcome with the *i*station?" (all just nod in agreement) **PI asks 2nd question**: "What are the pros and cons of using the *i*station reading program?"	
	Participant #5: "It is actively engaged, but then at the same time, you have the students, uh, that are just uh idle time - they just take too long looking at that one screen or they're doing other things and it records, it records them which is you know, pros in that sense that it records the time that it's idle, so…"
	Participant 1: "You know, I like the reports."
	Participant #5 continues: "I like the reports as well" (Everyone just nods in agreement to the statements made)
PI asks 3rd question: "What gains if any, did you observe in your students' test scores for this year when they had the intervention of the *i*station program vs. the previous year when they had not used the *i*station program?"	
	Participant #1: "I think the gains are like hard to tell, but..."
	Participant #2: "We're in third grade so we don't have any test results from last year"
	Participant #1: "Oh, yeah"
	Participant #2: "So we can't, there's no measure for the third grade students. What I can, uh, look at is their *i*station level at the beginning of the year…"

	Participant #1: “Uh, huh” and nods in agreement to participant number two as she responds
	Participant #2 continues: “compare to where they are at the end of the year and for the most part, I did see, uh, increase in their reading levels, uh, because I’m, you know, it’s the end of the year and I’m doing all of their end of the year filing stuff. The uh, for me, in September, I had 90% of my students in tier 3 and now with the June assessment, it was 62% of my students were in tier 3 so I…”
	Participant #3: “30% for me”
	Participant 2 continues: “so that’s, that’s you know, that’s improvement, and oh, but I should have noted was uh, how many from tier 1 at the beginning of the year to tier 1 at the end of the year because I started out with, oh gosh, maybe 1% in tier 1…”
	Participant #4: “uh-huh, yeah”
	Participant#1: “yeah”
	Participant #2 continues: “and now there’s of course a greater percentage in tier 1” **Participant #1**: “and it’s easier to track their gains because they reassess them every month. **Participants** are saying: "Uh, hum, yeah" "vs. like... (**participants are just saying** “uh, hum, yeah”) beginning, middle, and end like DRA and TPRI. Uh, it’s easier to track their gains. I like that about…”
	Participant #3: You don’t have to remember to test them every month. The computer will do it… (**all other participants are agreeing by saying**, “yeah, uh huh) **Participant 3 continues**: “automatically at the beginning of the month..”

	Participant 2: “Oh, there you go”
	Participant 6: “Yeah, uh, huh”
	Participant 1: “Oh, there’s another thing was like they’re automatically entered when they are enrolled… **Participants**: (**all agree by saying** “yeah, yes”) **Participant 1 continues**: “yes, so we don’t have to go (others say yeah) in there or depend on someone to manually enter them. And their passwords were like really simple... (**others interject by agreeing and saying “**yes”) and basic. I like that."
	Participant 5: “It might be an advantage for them to know their password, username and password. They go in, they log on themselves, and what I like that is that you can actually see the growth and decline, and you know.. what happens in January…December to January you saw a little bit of decline... (**others interject and say**, “yes”) especially you saw that decline like they were on vacation or winter break... (**again participants say** “yeah”) so you could see…"
	Participant 3: “turn it off (meaning other tape recorder that was making noise) – that one…” (everyone laughs)
	Participant 5 continues: "you could actually see the, the growth and that decline of that one month and then you start seeing the growth again."
	Participant 2: “yeah, from when they were out of school just for two weeks…”
	Participant 4: “yeah”
	Participant 2 continues: “how much lost so now I went ahead and I copied, uh, the

	individual, I can't remember the name of it, one of the reports though that for each student…"
	Participant 5: "priority?"
	Participant 2: "not the priority, uh, the one that shows all the little boxes and it gives all of the…"
	Participant 3: "I know which one you're talking about"
	Participant 2: "ok, but, I printed that for each one of my students and I'm putting that in their cum folder and I'm kind of curious to see when they come, when they go to 4th grade next year. I wanna see where they start. If it's anywhere close to where they ended up – at the end of this year." **Participant 4**: "I've also sent that one home monthly"
	Participant 2: "Oh, you would"
	Participant 4: "Uh huh, I didn't know if the parent had to read it, but I still sent it off"
	Participants 1, and 6: "Oh, yeah"
	Participant 3: "and that was the pro and con about it – is that the parents could access it from home…"
	Participant 2: "yeah"
	Participant 4 continues: "but not everyone has a computer to access it"
	Participant 2: "or even internet access"
	Participant 4: "yeah"
	Participant 2: "that's the thing"

	Participant 3: “and going back to the scores real quick, I know, uh, it’s not the same group of kids, but our scores did go up in 3rd grade …”
	Participant 2: “yes”
	Participant 3: “and I don’t know what the numbers are, I don’t know if any of you know them…”
	Participant 6: “Oh, it went up 15 points from the prior year”
	Participant 2: “from the 3rd grade STAAR results, the reading and math gain was 15 points for 3rd grade reading and math .. yeah, because this was what was the 15"
	Participant 6: “15 points the gain access”
	Participant 1: “so there were gains”
	Participant 3: “so there were gains – with the different group of kids of course”
	Participant 4: “yeah, because…”
	Participant 2: “that’s a big gain – uh hmm”
	Participant 4: “see and we didn’t – we implement it last year and our 4th graders didn’t gain with it. They, some of them, chose like it became bored – they became, bored with it, or if they didn’t know how to do it, they’d idled out or just waste their time on the computer”
	Participant 2: (“um hm”)
	Participant 1: “I know one of the hard thing is to find 90 minutes for tier 3"
	Participant 2: “Oh, yes”

	Participant 1: “That was hard”
	Participant 2: “The time that they ask you to implement for each tier student – 90 minutes is a long time”
	Participant 3: “You mean aside from the computer lab?”
	Participant 2: “yes” – well and even rotating in class though even if you use it as a station – it’s still hard to get those full 90 minutes' **Participant 3**: “Yeah, I don’t think I get my 90 minutes either”
	Participant 2: “Yeah, I didn’t …"
	Participant 3: “I didn’t either"
	Participant 2 continues: “I, uh, there’s uh, yet another report that will tell you how many minutes the kids had...” (**3 persons acknowledge by saying “yeah”**) “and it all of mine say below the recommended amount of time”
	Participant 1: “yeah”
	Participant 5: “And we’re not able to get in the times they recommend because of ….the restraints”
	Participant 3: “Well maybe towards the end with the library time we could’ve probably started doing it – the fact your computers weren’t up until the end”
	Participant 2: “Yeah, definitely, but that did help and the intervention lessons I don’t know if anybody else used the intervention...” (**Participant 1**: “Oh, um those were good”) **Participant 2 continues**: “that they were providing”
	Participant 3 “They’re good, but we’re not trained, not everyone was trained how to use them”

	Participant 2: “Yeah, but I was thinking I might use them with our small group..." (**Participant 3**: “yeah”) **Participant 2 continues**: “in school tutors get run off the intervention lessons and provide them with the material for the small group” (**Participant 1**: “yeah, um hm”)
	Participant 3: “That’s how they were supposed to be implemented, but..”
	Participant 4: “Yeah, I mean, but, I like how it groups the students by what they need..." (**all participants** agree by saying, “Uh, hm”) " like you could make easy lessons for them”
	Participant 3: “Make the easy lessons for them” (**Participant 1**: “um, hm”)
	Participant 2: “Yeah” –
	Participant 1: “And then you could click off once you give them the lesson, you click off”
PI: “Uh, based on your observations of the third grade students’ use of the *i*station reading program, which areas of the STAAR assessment may be influenced the most by the intervention?”	
	Participant 2: “I think it helped a lot with their decoding. I noticed, uh, throughout the year as it went by, they kinda started sounding out more of their words. I think that came from us doing *i*station. I don’t know about their comprehension or fluency, but it should have helped with their comprehension just being able to read the passages on level.”
	Participant 1: “I know some of the passages had like, science on there..." (**Participant 2**: “Yes” **Participant 3**: “Um, hm”)
	Participant 1: “I thought that was cool”
	Participant 5: “And for their comprehension, uh, I, I noticed that, I mean did see gains in their comprehension because we would be talking in Science about planets – they come in

	with things they hadn't learned in *i*station we were learning about animals and adaptations and they were always make that connection so they were comprehending what they were reading so I do believe it did help with their comprehension as well."
	Participant 1: "So, then at a certain cycle, they started doing like the graphic organizers... **Participant 3**: "Oh, yeah" **Participant 1** continues: "You all probably see that a lot in 4th grade, but only like a few like got that far, but it's cool to see them get out of thinking man, you should have more fun, but they wouldn't probably" (**all participants**: "laugh")
	Participant 2: "Did you use the writing part?"
	Participant 3: "Yes"
	Participant 2: "Does it seem to go along with the way you guys taught it?" **Participant 3**: "Um, hm" **Participant 2** continues: "do you think it helped?"
	Participant 3: Well, well, it's not, going to go along with how the writing is taught because everyone teaches it different, but it gave the basic outline, how to outline, and brain storm. It helped some of them and a lot of them did like it. So, um, I liked it because – but, it just, the only problem with it is it just didn't count.
	Participant 1: "Yeah"
	Participant 3: "It didn't count towards their time usage or anything"
	Participant 2: "cause I told mine to stay off the writing…because it was just reading"
	Participant 1: "And plus, we got it later"
	Participant 2: "do you think the writing was added later?"

	Participant 3: “Yes, it did”
	Participant 5: “Yeah, we did"
	Participant 2: “And I still don’t know what that section was all about and so I would just tell the kids avoid it..." **Participant 5**: (laughing) “You know her” **Participant 2** continues: “because I didn’t know what it was”
	Participant 6: “Now get off that box”
PI: “Um, regarding the *i*station, either math, reading or whatever you used it for, how long more or less did you all use it for? Was there a certain time, uh, during the week, the month, how many minutes? You know for how long?”	
	Participant 1: “Uh, well, for sure, we always did it in lab, but like based on their tier, tier 3 regular 90 minutes a week, tier 2 was 60, and tier 1 was 30. So we really tried and we used it here and then we would use in stations when we had time”
PI: “So, was it daily, weekly?”	
	Participant 1 and 2: “No, um”
	Participant 5: “15-20 minutes?
	Participant 1: “Yeah, max – unless it’s like guaranteed in that lesson”
	Participant 2: “Yeah, I would, when I would rotate mine, I’d give them a 20 minute time limit”
	Participant 3: “Yeah”
	Participant 2: “It didn’t matter what tier they were on - 20 minutes so I can rotate them all evenly”

	Participant 3: “And I think for it to assess accurately, it had to be at least 15 minutes or more – you couldn’t log in or log off below that or it would say you were, um, logging in and out - excessive log in usage”
	Participant 3: “Log-ins”
PI: “Is there anything else that you would like to say about the *i*station program?”	
	Participant 2: “The kids seem to like it”
	Participant 1: “I like it”
	Participant 2: “I thought it was good, but I did notice, and I think I mentioned it to you earlier, my students that had that – the attention deficit problem, whether it was just ADD or ADHD, they did not seem to do well on it – it couldn’t capture their attention, um, and that was what I was led to believe were the kids that it was supposed to appeal to the greatest”
	Participant 3: “Yep, I agree”
	Participant 2: “Because it was bright and colorful and had all of this and, but it was really bright”
	Participant 3: “But once they realized it was learning, you had to do what everybody else..”
	Participant 2: “Yeah, oh yeah”
	Participant 4: “I mean it was great at the beginning, but then towards the end it was like ... ok, yeah”
	Participant 1: “No, no .. okay, yeah”

	Participant 5: "See, but like, and for me, my two ADD or ADHD were the ones that liked it the most – they were the ones that would always asked if they could get on it rather than Think Through Math, or any other program that educates the kids"
	Participant 4: "So, if you compare that to Think Through Math, math and *i*station, I think that *i*station is a little bit better for that, but you know, alone, it's for the ADD/ADHD"
	Participant 1: "Yeah"
	Participant 3: "Cause those were the ones that – yeah – yeah they became whiners"
	Participant 2: "That was my population and they could, they could not do it"
	Participant 3: "They became whiners," **all participants**: 'Yes, yeah," **participant 3** continues: "Every time we had computer lab, Do we have to do this?"
	Participant 2: "Can I get off now? How much time is left?"
	Participant 3: "Um, hm – or they would act like they couldn't get in" **Participant 1**: "Uh, huh, I can't log in…"
	Participant 2: Look, it's twelve minutes already" (laughs)
	Participant 5: "Yours? Did you notice anything?"
	Participant 1: "No, mine, I didn't have that - I mean, well... **Participant 6** responds: "a couple of them?" **Participant 1** continues: "yeah, the usual – but then, like, when did you start? You started in mid-year – last year, so these kids already know it,"
	Participant 5: "My 4th graders already knew 'cause I had started with them whenever they implemented it so they were already learned,

	they already knew what it was gonna be... **Participant 2**: “yeah” **Participant 5** continues: “be consisting of and they realize it wasn’t a game. It wasn’t new to them.”
	Participant 3: “No, so that’s why, if you look at their scores, they pretty much it’s you don’t see gains with them... **Participant 5**: “OK” **Participant 3** continues: Like they stayed the same from year to year with it”
	Participant 4: “And if…I think you…because of what I’ve seen though, they learned in the bottom of my grades in kindergarten kids, I mean, they went from tier 3 to tier 1, I mean, they’re learning, they’re learning that the color blends out of recognition belonging – learning all these things, I think we keep it up, there’ll be great, that’ll be good, gains because they’re even going into like my higher students are already going into the vocabulary comprehension, you know, so if we keep on doing it, I think there will be gains, with the, you know, the ones that will get it will get it ..”
	Participant 6: ‘Yeah, I agree with that”
PI: “Any other comments or..”	
	Participant 3: “Um, just more training on it – I would think, because they kind of threw it on our lap last year and then it was like, ok, go and run with it”
	Participant 2: “They did a little better this year”
	Participant 1: “Yeah”
	Participant 5: “They did, it was all about the intervention lesson and how to get to the…”
	Participant 2: "And some of the reports”

	Participant 1: “Yeah, um hm”
	Participant 2: “I don’t know what else I was wondering about… **Participant 5:** “We definitely need trainings” **Participant 2** continues: “I was wondering about it though…”
	Participant 4: “I love the reports”
	Participant 1: “me, too”
	Participant 6: “Yeah, yes”
	Participant 4 continues: ‘I love the way you can analyze the students, you know, which ones are your…you know, the ones that are the ones that are your needy ones, and the ones that have been the needy ones all year long, and then, you know, they, you know, that they could do better being on RTI or something because…”
	Participant 5: “And my only concern with testing is that when they’re testing on it, you know, sometimes they’re, they’re not really paying attention to it **All participants agree**: “Yes, um, hum” as much as they would testing... **Participant 2**: “Yes” **Participant 5** continues: "as they would testing with the person individually..." **All participants**: “Uh, hum, yes” **Participant 5** continues: "..."I mean, there’s pretty much on it, but they’re listening to everything going on **All participants**: “Yes" **participant 5** continues: "around them so that’s my only concern with it.”
	Participant 2: “That’s what my, my attention deficit kids would do. If they would be on, they had the head phones, but their eyes... **Participant 3**: “Or they are looking at the screen next to them to see where they were at” **participant 2** continues: "would be

	everywhere else around them”
	Participant 1: “Yeah”
	Participant 3: “If they had a higher person next to them, then they would like (sighs) uh, you know, and looking at their screen. I guess when you, like the, the fighting points”
	Participant 4: “I know..my students are like (mocking) Miss, why would they peek! Miss, we’re doing the same thing!”
	Participant 6: “The same type of work, right?
	Participant 3: “Right, yeah.” (mocking voice) “Mike is always on the computers! (everyone laughs)
	Participant 4: “But, I think, the students, if they start from the beginning, like my students, they get on – they log on by themselves, I have one or two of course, the ones that are..that log on by themselves, I mean, they know, they’re even the ones that couldn’t even spell their names they were already logging on themselves – you know, and , and just to keep them up that way, it would be you know..
	Participant 3: “And that would be the group to look at because they’re starting with it”
	Participants 1 and 2: “Yes, yes”
	Participant 5: “Uh-hum – and that’s the…”
	Participant 4 continues: “from kindergarten” **Participant 5** finishes her sentence: “that’ll be good to see”
	Participant 3: “One we need to track... **Participant 1**: “Uh-hum”, **Participant 3** continues: "you know, with their stuff to see how well they... **Participant 1**: “Mmm-hmm” **Participant 3** concludes: "progressed with it." **Participant 2**: “Yeah” – **Participant 3**: “Mmm-hmm”
PI: “Very good. Okay, ladies, well, thank you	

so much for coming and, hopefully, I'll be able to get all of this on tape" (everyone laughs).	