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The Effects of Extended Reading Time on Third-Grade Students with Diverse Reading Needs: A Comparative Analysis of Two Title I Elementary Schools

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Concordia University–Portland
College of Education
Doctorate of Education Program

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The Effects of Extended Reading Time on Third-Grade Students with Diverse Reading Needs:
A Comparative Analysis of Two Title I Elementary Schools

Michael A. Dennis
Concordia University–Portland

Dissertation submitted to the Faculty of the College of Education
in partial fulfillment of the requirements for the degree of
Doctor of Education in
Higher Education

Rinyka Allison, Ph.D., Faculty Chair Dissertation Committee
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Concordia University–Portland

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Abstract

Reading is one of the basic and necessary skills for success in life. When an individual cannot read, it will limit the individual’s opportunities to grow, produce, and thrive. The researcher explored three factors relative to reading: the effects a supplemental reading program, Extended Reading Time (ERT), had on third-grade students with diverse reading needs, the reading improvement of third-grade students who did not receive ERT services, and to what extent will third-grade teachers effectively utilize ERT to meet the needs of their students best. The researcher used archival data from two Title I elementary schools; one received ERT services, and the other did not receive the services. There were four comparative analyses conducted on quantitative data. Statistically significant differences were found in the pretest and posttest reading scores of third-grade students who received ERT services ($F (1, 336) = 8.79, p = .003, \eta^2 = 12.19$). Also, there were no statistically significant differences found in the pretest and posttest reading scores of third-grade students who did not receive ERT services. These findings suggested that ERT services may have helped the non-ERT third-grade students achieve higher reading scores on their posttest. Limitations included the characteristics of Title I third-grade students, characteristics of Title I schools, and third-grade teachers’ pedagogical effectiveness. Some of these characteristics were no in-home education between the ages of 0 to 4 years old, as parents possessed limited formal education, and little to no connection between parents and their children’s school(s). These limitations may have caused the results to be unique and restricted their abilities to be generalized to different populations, as the results could be only applicable to other similar Title I populations.

Keywords: supplemental reading programs, Extended Reading Time, Title I third-grade students, reading proficiency, diverse reading needs
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Chapter 1: Introduction

Reading is one of the basic and necessary skills for a growing and productive individual to succeed in life (Beegle, 2015b; Jensen, 2013; Payne, 2013). The ability to effectively and proficiently read creates opportunities for advancement in one’s education, profession, and personal life (Dennis, 2017; Hausheer, Hansen, & Doumas, 2011). When an individual does not possess reading skills, it holistically limits the individual’s opportunities to grow, produce, and thrive (Dennis, 2017; Payne, 2013). Further, an illiterate person cannot critically understand text, expressively write, and effectively speak (Niklas & Schneider, 2014). Initiating and honing reading skills starts very early in life, and some experts found, even before an individual is born (Jensen, 2013; Maslow, 1954). Finally, effective reading skills propagate the events of lifelong growth and learning (Maslow, 1971).

Background, Context, History, and Conceptual Framework of the Problem

According to the U.S. Census Bureau, as cited by Poverty USA (2017), an annual income of $24,000 per year, for a family of four, is legally recognized as a threshold for living in poverty in the United States, and this equates to about 20% of children in the United States. The number of children in the United States who are living in poverty may be higher because it is reasonable to assume that a family of four cannot sufficiently live on $40,000 a year, much less at $24,000 a year. Poverty is one of several prevailing factors that negatively affect the lives of United States’ children, their educational readiness, achievement, and success (Beegle, 2015a). Further, Maslow’s Hierarchy theory is the conceptual framework for this research project, and according to his hierarchy theory, poverty is one of those unfortunate circumstances that create a need or gap within the continuous spectrum of learning, growth, and motivation (Maslow, 1954). This
continuous spectrum usually propels the equilibrium of achievement, success, and satisfaction in children (Maslow, 1971).

A supplemental reading program is one of several ways teachers, school administrators, parents, policymakers, and other stakeholders have attempted to combat the devastating effects of poverty, and other negative prevailing factors have on children’s acquisition of reading skills (Jensen, 2013). Furthermore, this area of research has produced vast and diverse arrays of information on supplemental reading programs for children in need of additional reading supports due to negative impacts of extenuating circumstances; such as lack of access to educational utensils, poverty, learning disabilities, and other types of disabilities caused by fetal exposures (adverse actions of parents during pre-birth months). For example, an experimental research project studied the effectiveness of a community-based supplemental literacy program in a Head Start facility (Nelson, Sanders, & Gonzalez, 2010). Also, a quasi-experiment researched how a teacher-guided supplemental literacy program versus a computer supplemental literacy program affect students’ acquisition of new literacy knowledge and its application (Martin, Elfreth, & Feng, 2014). Further, Maslow (1954) and other experts that built on his initial theories (Alderfer, 1969; Norwood, 1999) believed achievement and success are obtainable when fundamental stages of learning are in place and completed, either naturally or by artificial intervention. For example, Maslow’s Hierarchy theory illustrates that simpler needs must be in place and completed before more complex needs can be met sufficiently and completed (Alderfer, 1969; Maslow, 1971).

Supplemental reading programs seek to positively manipulate the reading proficiency of children that need help (Niklas & Schneider, 2014). These types of reading programs provide remediation and facilitation by teaching children strategies for reading development and
improvement (Calhoon, Sandow, & Hunter, 2010). The importance of children acquiring adequate reading skills has longitudinal and lasting implications on the course of their lives (Dennis, 2017; Hausheer et al., 2011; Payne, 2013).

**Statement of the Problem**

Poverty is a leading cause of reading deficits in young children. According to Kids Counts Data Center, a project of the Annie E. Casey Foundation, 42% of children in the United States that are under age six are not read to daily, and this prevalent situation profoundly affects children’s formal education readiness and aptitude (Kids Count, 2018). Poverty is one of several significant contributors to children’s reading deficits, deficiencies, and difficulties (Jensen, 2013; Payne 2013). Another contributor to children’s reading deficits and deficiencies is the difficulties of English Language Learners (ELL) learning a new language (English) while still learning their native languages. For example, the learning curve involved in acquiring two languages at the same time (native language and English) may present as reading deficits, deficiencies, and even a learning disability (LD) (Savaskan, 2017; Talebi, 2012). Also, poor prenatal health choices of parents have contributed and continue to contribute to children’s reading deficits, deficiencies, and difficulties, for example, parents who have used drugs while pregnant, and/or did not regularly attend their prenatal doctor appointments. “Poor prenatal care…have been linked to low birthweight, hearing problems, learning difficulties…and brain damage” (Bellamy, 2001, para. 1). Reading deficits, deficiencies, and difficulties in children are dynamic, evolving, and emerging fields of interests in 21st century United States education (Jensen, 2013).

While it is prudent and necessary to disclose and acknowledge some of the diverse influences that perpetuate children’s reading deficits, deficiencies, and difficulties, these
contributing factors are not the primary focus of the research. The primary focus of the research is to learn if Extended Reading Time (ERT), a supplemental reading program, significantly increase the reading proficiency of third-grade students with reading deficits, deficiencies, and difficulties. Also, the research seeks to find out if third-grade teachers effectively utilized ERT? These answers are brought to fruition by studying, analyzing, synthesizing, and evaluating the variables (independent, dependent, and extraneous) that impact the population, procedures, methodology, internal validity, external validity, and reliability of the data and its results.

**Purpose of the Study**

The purpose of the research is to learn if the treatment of ERT, a supplemental reading program, increases the reading proficiency of third-grade students with diverse reading needs who attend Cleft of The Rock Elementary School (COTR). In addition, the research seeks to learn if there is an increase in reading proficiency of third-grade students with diverse reading needs who attend East Wind Elementary School (EWES)—a non-ERT school. Also, the research seeks to learn if the reading proficiency scores of third-grade students who attend EWES, are similar or different when compared to the reading proficiency of third-grade students who attend COTR. Cleft of The Rock Elementary School and East Winds Elementary School are pseudonym names used to protect the confidentiality of students, students’ data, and teachers. Finally, the research attempts to learn if third-grade teachers at COTR effectively utilize ERT to the extent that best meets the needs of their students. COTR and EWES are Title I schools; students that attend Title I schools usually possess specific characteristics such as living in poverty, single-parent homes, learning disabilities, and reading delays and deficits (Klingner, Artiles, & Barletta, 2006; Payne, 2013; Worcester, 2013). Are these characteristics affect the results and implications of the data?
**Research Questions**

1. To what extent will the reading proficiency of third-grade students differ when the scores of those who receive ERT and those who do not receive ERT intervention services are compared?
2. To what extent will third-grade teachers effectively utilize ERT to meet the needs of their students best?

**Null Hypothesis**

1. There will be no significant improvement in third-grade students’ performance on assessments (Reading Interim Form 1 and ELA Florida Standards Assessment (ELA FSA) used to analyze the effectiveness of ERT.
2. There will be no significant improvement in non-ERT third-grade students’ performance on assessments (Reading Interim Form 1 and ELA FSA).
3. Third-grade teachers will not have effectively utilized ERT time at COTR.

**Alternative Hypothesis**

1. There will be a significant improvement in students’ performance on assessments (Reading Interim Form 1 and ELA FSA) used to analyze the effectiveness of ERT.
2. There will be a significant improvement in third-grade, non-ERT, students’ performance on assessments (Interim Form Reading 1 and ELA FSA).
3. Third-grade teachers will have effectively utilized ERT time at COTR.

**Rationale for Methodology**

Quantitative research goals, methods, and designs are different from qualitative research in some ways. This type of research methodology compares the characteristics of large samples to learn if the results can be applied or generalized to specific populations (Creswell, 2014;
Salkind, 2014). Creswell (2014) and Salkind (2014) contended quantitative research was reliable, valid, and generalizable in its ability to predict cause and effect. The rationale for choosing the research methodology was that it would generate information data that advises on the problem and focus the research procedures.

Archival Data

The archival data is four data sets. The four data sets are two data sets from COTR and two data sets from EWES. The two data sets that derive from each school are third-grade students’ Reading Interim Form 1 (taken in October 2017) and English-Language Arts (ELA) Florida Standards Assessment scores (taken in April 2018). The Reading Interim Form Assessment 1 is a formative assessment, and the data from the assessment is one of several ways teachers and administrators learn of students’ recent reading growth and proficiency. Also, the ELA FSA serves and helps students “succeed by measuring (reading) gains and progress” (Florida Department of Education (FDOE), 2018, para. 1). The ELA FSA is based on national common core “standards, which outline what students should know at the end of each grade” (State Impact, 2018, para. 2). It is a summative assessment, as it evaluates students’ reading growth and proficiency over an entire school year. For promotion to the next grade, students in grades 3 to 12 must pass their grade-level ELA FSA. Further, the ELA FSA is significant and relevant to the research because it is the culminating assessment that reveals if ERT helped improve third-grade students’ reading proficiency.

Data Clearance

Desert County school district granted data usage clearance in October 2018 and the data usage documentation was added to the researcher’s IRB.net package for review by Concordia University–Portland’s doctoral board. Concordia University–Portland’s doctoral board reviewed
the IRB.net package and granted the researcher permission to initiate the analyses of the archival data sets (run the experiment) in December 2018.

**Data Analysis**

A comparative digital software (Statistical Packages for Social Science (SPSS)) analyzes the four archival data sets. Consistent with Pallant (2013), the researcher uses one-way ANOVA F-tests to compare the archival data sets. There are four comparative analyses on the data sets. First, an analysis compares COTR’s and EWES’s third-grade students’ Reading Interim Form 1 scores. The second analysis compares of COTR’s third-grade students’ Read Interim Form 1 and ELA FSA scores. Then, an analysis compares EWES’s third-grade students’ Reading Form #1 and ELA FSA scores. A final analysis compares COTR’s and EWES’s third-grade students’ ELA FSA scores. The comparative analyses highlight similarities and differences between the data sets.

**Research Design**

Causal-comparative analyses of the four data sets would determine significant differences between the reading assessments’ scores. The results may add new and relevant information to the discussion of how supplemental reading programs impact students who require support in reading. Finally, the researcher found no prior research conducted on this type of supplemental reading program; therefore, the research results and implications could be ground-breaking.

The first question of the research examines if a school-wide supplemental reading program, ERT, significantly increases the reading proficiency of third-grade students. The second research question examines if third-grade students’ reading proficiency significantly increases without ERT intervention services. The next research question examines if the reading proficiency scores of third-grade students receiving ERT intervention services significantly differ
from third-grade students who are not receiving ERT intervention services. Finally, the last research question examines if third-grade teachers effectively utilized ERT. A review of the literature indicates that there is a scarcity of research articles that examined how a school-wide supplemental reading program impacts third-grade students. Most of the research projects in the literature review utilized a quantitative research methodology, and the results appeared to yield relevant information. As such, I chose to utilize a causal-comparative research design to analyze the data for the research to learn if third-grade students’ reading scores significantly improved during the 2017–2018 school year.

**Definition of Terms**

*21st century:* The modern day circumstances and situations, which may, in some cases, involve the common and practical utilization of technology (Vasquez, Forbush, Mason, Lockwood, & Gleed, 2011).

*Causal-Comparative:* Relationships between independent and dependent variables after an action or event has already occurred. (Creswell, 2014).

*Quantitative research:* The research approach predicated on measuring numeric data for significance (Creswell, 2014).

*Standards-Based assessment:* The common core standards-based test designed to evaluate students’ understanding and mastery of a subject’s content (personal communication, October 31, 2017).

*Reading proficiency:* The ability to read and comprehend a language intelligibly (Hausheer et al., 2011).
Supplemental reading programs: Programs implement reading interventions that help students develop their reading ability. Trained professionals usually facilitated the interventions (Gibson, Cartledge, & Keyes, 2011).

Assumptions, Limitations, and Delimitations

Assumptions

The first research question examines if ERT improves COTR’s third-grade students’ reading proficiency. The Reading Interim Form 1 and ELA FSA evaluate COTR’s third-grade students’ reading improvements. Each of these assessments has scripts that outline allotted test time, test accommodations, test rules, and procedures. The researcher does not have any control over whether all the third-grade teachers followed all the instructions, accommodations, rules, and procedures outlined in the assessments’ scripts. The researcher assumes all the third-grade teachers carried out the instructions, rules, and procedures for the assessments in a fair and unprejudicial manner to all their students.

The second research question examines if third-grade students at EWES students’ reading proficiency improved without ERT intervention services. The same assessments and conditions (the Reading Interim Form 1, ELA FSA, script mandates, and procedures) evaluate EWES’s third-grade students’ reading improvement. Again, the researcher assumes all the third-grade teachers carried out the instructions, rules, and procedures for the assessments in a fair and unprejudicial manner to all their students.

The third research question examines if the scores of third-grade students who receive ERT differs from the scores of the third-grade students who do not receive ERT intervention services. COTR’s third-grade students’ baseline assessment (Reading Interim Form 1) scores will be compared with EWES third-grade students’ baseline assessment (Reading Interim Form
1) scores by using a one-way ANOVA F-test. Then, a one-way ANOVA F-test will compare COTR’s and EWES’s third-grade students’ ELA FSA scores. The researcher assumes that all third-grade test administrators in both schools administered the assessments in a fair and unprejudicial manner to all third-grade students by adhering the assessment’s instructions, rules, and procedures.

The final research question examines if teachers at COTR are effectively utilizing ERT. The researcher does not have any control over the other third-grade teacher’s professionalism and pedagogical wherewithal as it relates to implementing supplemental reading lessons and facilitating strategies that benefit their particular students. The researcher assumed third-grade teachers would be present and aptly performed their COTR duties and responsibilities to the best of their ability.

Limitations

The recent history of COTR as a predominately failing school is an inherent weakness of the research because it effects the generalizability of the archival data’s results and applicability. At the end of the 2016–2017 school year, COTR earned a school grade of ‘D’ from FDOE (FDOE, 2017a); as the students at COTR still performed below-grade level. The researcher taught third-grade at a Title I school, and on-site professional development meetings and practicing instructional techniques that would best improve the reading proficiency of my third-grade students assisted with this type of limitation. Also, the researcher followed up with parents on the performance and progress of their children. Finally, all of the researcher’s third-grade students were routinely advised and encouraged.

Another inherent limitation is the treatment of the research, which is ERT. First, ERT is funded through the state to help academically failing and below-level performing elementary
schools in the state of Florida. Elementary schools in Florida that are failing or performing below level are mandated, by law, to provide ERT time to students who attend those particular schools. Second, third-grade teachers at the school of the research are at liberty to supplement any area of literacy intervention during ERT time, as such, the application, continuity approach, and rigor of techniques are inconsistent. For example, a third-grade teacher may have decided to facilitate third-grade students’ fluency development through whole-class choral reading, as oppose to another third-grade teacher’s choice to utilize peer-to-peer shared reading as the means to developing fluency. While applying each approach could be applicable to meeting the needs of each third-grade teachers’ particular students, the different approach is yet, inconsistent. This inconsistency amongst the third-grade teachers’ instructional choices and implementations for ERT is a limitation for discussion in the results, and implications sections.

Also, of note is EWES academic past. EWES has not always been a non-ERT school but maintained a recent past of consistent school grade of “C.” The consistent “C” performances in recent years propelled the school from the ERT state and district mandate. Although EWES is a Title I school and is entitled to all federal, state, and district funding eligibilities, ERT is no longer a required supplemental reading service. As such, EWES’s Title I status is a limitation because Title I students possess particular characteristics that are notable and might affect the results and implications of the research.

**Delimitations**

The researcher manifested delimitation procedures that were aimed at creating fair, equal, and equitable opportunities for Title I third-grade students’ achievement and success. As such, the Reading Interim Form 1 and ELA FSA scripts (the research project’s testing instruments) were read to all third-grade students that was administered the assessments at COTR and EWES.
In addition, as mandated by Federal law, third-grade students that had Individualized Educational Plans (IEP) or 504 Plans, received testing accommodation provisions. Also, as a means of eliminating test anxiety or limiting its impact on the third-grade students’ reading performance on the two instruments, no students were informed that their reading scores would be part of a research project. The researcher’s intent was for students to take the assessments as pressure-free as possible. Finally, the researcher attempted to delimit the research results by ensuring the archival data was entered error-free. The error-free SPSS application entries of the archival data increased the possibility of results that were generalizable to other types of populations and applicable to answering the research questions.

**Rationale, Relevance, and Significance of the Study**

The research examines if a supplemental reading program, ERT, increases the reading proficiency of third-grade students with diverse needs. There are several reasons why the research is significant. The research focuses on third-grade students who attend COTR and EWES, which are Title I schools. In recent years, COTR has received an F (Failing) grade from the FDOE as opposed to EWES maintaining a state grade of C (FDOE, 2017a). Third, fourth, and fifth-grade students’ Florida Standards Assessment scores in English, Math, and Science are connected to schools’ state rating grade system. When a school receives a grade of F or D (COTR is a D school and EWES is currently a C school), the ERT program is required and used as a means of providing all students with strategies and tools to improve as readers (FDOE, 2017a). All students attending COTR during the 2017–2018 school year received ERT supplemental reading services. However, students attending EWES during the 2017–2018 are not receiving ERT supplemental reading service. The implications of the results from the analysis of the archival data adds new knowledge to the topic of the effectiveness of ERT and
what type or kind of supplemental reading programs can improve the reading proficiency of Title I students. Second, the research adds new knowledge to the discussion of pedagogical effectiveness of the third-grade teachers implementing ERT at a Title I school, for example, if third-grade teachers at COTR utilized ERT in a manner that most benefited their students. ERT is a year-long program, funded by FDOE and the local school district. ERT is facilitated by certified teachers that were the homeroom teachers of third-grade students at COTR (personal communication, November 14, 2017). Finally, the next steps necessary for meeting the needs of students with diverse reading needs are cooperatively facilitated through education state officials, school district personnel, school administrators, teachers, and parents.

Summary

Chapter 1 began by introducing the importance of acquiring reading skills. It gave examples of factors that perpetuate reading deficits, deficiencies, and difficulties. Then, Chapter 1 gave an overlay on the background of the research topic, problem statement, purpose statement, and research questions and hypotheses. Also, Chapter 1 revealed the rationale for the methodology, research design, and definition of terms. Finally, Chapter 1 concluded by discussing assumptions, limitations, delimitation, research objective, and significance for the research.

The following chapters expounds upon the research topic, statement of the problem, purpose statement, research questions, the rationale for methodology, research design, assumptions, limitations, and delimitations. Chapter 2 reviews relevant literature and discuss methodological issues for the research. Chapter 3 outlines the methods and procedures for the research. Chapter 4 explains the results of the research, and finally, Chapter 5 discusses the implications of the results.
Chapter 2: Review of Literature

Introduction

The purpose of this causal-comparative study was to determine the probable effects a school-wide supplemental reading program, ERT, would have on the reading proficiency and achievement of third-grade students with diverse reading needs. The review of the literature contributed to understanding the acquisition of reading skills, reading deficiencies, deficits, and how some of the variables affected third-grade students’ abilities to improve as readers.

The literature review began with a discussion on how socioeconomic status of particular families impacts the academic reading readiness, aptitude, and achievement of children/young learners. The majority of third-grade students who attended COTR and EWES were certified free lunch recipients (Cleft of The Rock Elementary School (COTR), 2017; East Wind Elementary School (EWES), 2017). The high number of certified free lunch students equate to their mothers, fathers, and/or legal guardians not working, or working jobs that pay below the middle-class range. Further, Payne (2013) noted that poverty had a direct impact on academic readiness and performances of students; this probably applies to the third-grade students involved in the research. The literature review expands on student academic readiness and performance by exploring how parents’ education level impacts access to learning within the home environment. In addition, the literature review examines the continuity aspects of reading development by expounding on teachers providing supplemental reading interventions and services to students and their effect on students’ improvement. This information was essential because ERT (the school-wide supplemental reading program) was the treatment in the research project and third-grade teachers will play a vital role in its implementation.
Furthermore, English/Language Arts (ELA) teachers’ years of service and pedagogical skills as ELA educators had an undeniable impact on students’ reading performance and achievement (Martin et al., 2014). Also, the literature review deliberated on how students retain new knowledge gained through supplemental reading programs. Most of the third-grade students of the research lived in Spanish speaking families, and this impacted how much new reading knowledge can be sustained and retained. Students that lived in these types of situations had difficulties retaining new knowledge and growth if they were not universally practicing speaking, writing, and reading English (Savaskan, 2017; Talebi, 2012). Finally, this literature review section concluded with a discussion on digitally-based educational devices and software programs in 21st century classrooms. Digitally-based educational devices and software programs were used daily by third-grade students that attended COTR and EWES. There were digital needs of the time, to engage and educate 21st century students, and the ultimate goals were meant to procure students’ holistic development as viable human beings.

**Conceptual Framework**

Maslow (1954) theorized all living beings had motivations, which were fueled by the need to exist and grow. These needs must be met, before other needs or more abstract needs can be sufficiently realized (Maslow, 1954). Maslow’s concepts of motivations led to the development of his hierarchy system or triad, which was intended to be micro-applicable and macro-applicable to human motivations, needs, and growth. The first three levels of Maslow’s Hierarchy theory (Figure 1) was primarily micro-applicable. Micro-application refers to available supports at the beginning of a particular journey, and how these supports affect feelings of autonomy, physical growth, psychological wherewithal, and understanding and accepting one’s place within a family structure, school, and other social media (Griffin, 1994). Just as
important, the final two levels of Maslow’s Hierarchy theory (Figure 1) was macro-applicable. Macro-application refers to a person(s) ability to impact others through actions, which were self-actualized positively.

![Maslow's Hierarchy Theory](image)

**Figure 1.** Maslow’s (1954) hierarchy theory

**The Connection**

As it relates to the acquisition of progressive literacy skills, Maslow’s Hierarchy theory was applicable because through stages of development and growth both of these concepts were operationalized. Maslow’s Hierarchy theory was a motivational apparatus staged with levels created and/or meant for completion, which in turn places the person(s) in the best position to complete or accomplish goals of a particular developmental stage/level (Griffin, 1994). For example, if a baby or toddler’s need for water, food, and safety were not met with adequacy (Stages/Levels 1 and 2 of Maslow’s Hierarchy theory), then the baby’s or toddler’s feeling of intimacy, love, and belonging (Stage/Level 3 of Maslow’s Hierarchy theory) would not exist (Maslow, 1971).

In addition, Alderfer (1969) was one of some theorists that supported Maslow’s theory of needs and motivations as it pertains to learning and growth. Maslow’s (1954) and Alderfer’s
(1969) aligning theories suggest learning and growth were not sudden acts of accomplishments. Their outlooks were connected to the research because the acquisition of progressive literacy skills was a gradual growth process that was justified through practice, developmental stages, and milestones (Beegle, 2015a; Payne, 2013). Moreover, the acquisition of progressive literacy skills was distinguished accomplishments realized over time, and through a series of gradually attained milestones (Alderfer & Hai, 2011; Maslow, 1954; Worcester, 2013). For example, if a person had not met the need of learning the sounds of single and combined letters, they cannot experience feelings of satisfaction and success with reading and writing (Kim, Capotosto, Hartry, & Fitzgerald, 2011). Figure 2 is Dennis’ literacy triad of success. It illustrates how the implications (the growth stages and importance of literacy and its impacts on the entirety of a person’s life) of the research were connected to and supported by Maslow’s Hierarchy theory.

![Figure 2. Dennis (2017) literacy triad of success.]

Further, Alderfer (1969) sought to build on Maslow’s theory of needs and motivations; as such, he created the Existence, Relatedness, and Growth (ERG) Theory. ERG Theory was the
after-runner to Maslow’s needs, motivation, and hierarchy theory. Alderfer’s ERG Theory supported Maslow’s theoretical approach and beliefs as he sought to provide corresponding application throughout his proposed stages of growth and motivation. This theory led to his further creation of Alderfer’s Hierarchy of Motivational Needs. Table 3 is Alderfer’s Hierarchy of Motivational Needs as it illustrates the levels of needs, definitions, and properties relating to internal stages of satisfaction.

Table 1

\textit{Alderfer’s Hierarchy of Motivational Needs (Alderfer, 1969)}

<table>
<thead>
<tr>
<th>Level of Need</th>
<th>Definition</th>
<th>Properties</th>
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<tbody>
<tr>
<td>Growth</td>
<td>Impel a person to make creative or productive effects on himself and his environment.</td>
<td>Satisfied through using capabilities in engaging problems, creates a greater sense of wholeness and fullness as a human being.</td>
</tr>
<tr>
<td>Relatedness</td>
<td>Involve relationships with significant others.</td>
<td>Satisfied by mutually sharing thoughts and feelings, acceptance, confirmation, understanding, and influence are elements.</td>
</tr>
<tr>
<td>Existence</td>
<td>Includes all the various forms of materials and psychological desires.</td>
<td>When divided among people one person’s gain is another’s loss if resources are limited.</td>
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Norwood (1999) was another theorist whose work built upon Maslow’s Hierarchy approach to needs, motivation, and growth. He developed an informational outlook on how individuals seek motivation and growth relative to Maslow’s Hierarchy approach to needs, motivations, and growth. It was contended individuals at the safety level of Maslow’s Hierarchy seek coping information as a means of negotiating/meeting basic needs. Coping was one of the
ways individuals seek to survive or maintain themselves. This theoretical approach applies to the research because children, who lack readiness for formal education, will seek methods of survival and/or how to maintain aptness or growth according to one’s personality. For instance, a child who was intellectually incapable of producing academic work on grade level will seek to survive and/or maintain by producing levels of work that were congruent with his/her academic functioning level. This self-congruency method of surviving and/or maintaining was a type of motivation, which will lead to feelings of safety, belonging, and forward self-sufficiency even though the child was academically functioning below grade level (Alderfer, 1969; Maslow 1954).

Norwood’s (1999) Theoretical Approaches to needs, motivations, and growth were complementary to Maslow’s approach. For example, Norwood’s Level 1 involved receiving information for coping, and this supports the first stage of Maslow’s Hierarchy involving Basic Needs. The basic needs of an individual’s self internally and externally allowed the individual to cope with the world. Furthermore, Norwood’s Theoretical approach to Needs, Motivation, and Growth suggest ways of supporting the problem statement and probable solutions. The problem was that the reading deficiencies and deficits amongst United States’ children can be described as an epidemic of sorts (Goldstein et al., 2017). The feasible solutions that the research explored were providing United States’ children experiencing reading deficiencies and deficits with necessary coping strategies, resources, and/or skills to progress as functional readers.

Edu-Neuro-Analysis Research as it Pertains to Reading Skills

Brain development’s impact on reading was a contemporary concept and prolonged debate in the education field. The Dana Foundation, a renowned leader in responsible information on the brain, inspired and funded research of brain development connected to
reading proficiency. Patoine (2008) contended that “While a high-level cognitive skill such as reading may seem like a natural province of brain research—all learning occurs in the brain, after all…as neuroscience now delves into the neurobiology of reading, one thing was becoming clear: not all children’s brains are ‘wired’ for reading in the same way” (para. 2). For example, the means of how children acquire reading skills and advance in proficiency should no longer be approached as a “one size fits all.

Additionally, contemporary researchers were not quick to label and stigmatize children who were below-level readers as reading disabled, as they tend to believe children who lack reading readiness were not abnormal but instead were variants of normal (reading skills acquired through different strategies and at different rates). Adhering to variants of normal defused labels that stigmatized, which stunted learning and growth (Patione, 2008). Acknowledging variants of normal was a means for facilitating all types of reading skill levels and proficiency, which enhanced individuals’ self-esteem and potential success (Patoine, 2008).

Moreover, edu-brain/edu-neuro-analysis researchers have connected reading and reading proficiency to the white matter in the brain.

White matter is bundles of myelinated axons that connect disparate regions of the brain’s cortex; myelin is the fatty white sheath that envelops axons to facilitate efficient nerve signal transmission. These bundles can be thought of as the brain’s communication cables, shuttling electrical signals from groups of nerve cells that were separated by many centimeters—relatively great distances in the brain. When these white matter pathways break down, consequences can be profound, as in paralysis, or subtle, as is now becoming clear in reading difficulties. (Patoine, 2008, para. 11)
This finding suggests an important linkage between brain elements and reading development/abilities. As such, in the matter of the research, the population may be experiencing some level of white matter pathway breakdown and/or disruption, as it may be evident through reading delays, deficiencies, and difficulties.

Further, the discussion of hierarchies and stages of development was inadequate unless there was a combined discussion of brain development, neuro-research, and neuro-analysis. Wandell, a psychologist at Stanford University, stated “Historically, people have assumed that all children’s brains come adequately equipped and ready to learn to read, just as with learning to speak, which occurs naturally without much training. (Further), there was a natural distribution of capabilities” (Patoine, 2008, para. 9). This finding suggests brain development was a growth apparatus, which varies amongst individuals, and particularly children raised in and under unusual, exceptional, and difficult circumstances (De Weerdt, Desoete, & Roeyers, 2013).

These findings connected and were congruent with Maslow’s needs, motivation, and Hierarchy Theory. Maslow’s needs, motivation, and Hierarchy theory was based and predicated upon holistic human growth and development through life experiences (Alderfer, 1969; Maslow, 1954; Maslow, 1971). Similarly, neuroscience had found viable evidence that life experiences influence the brain and brain development (Jensen, 2013). It was reasonable to suggest that both approaches support each other.

**Review of Research Literature and Methodological Literature**

Due to multi-slated and diverse social and educational concerns affecting United States’ children, more and more of them were beginning their formal educational careers with reading delays, deficits, difficulties, and functioning within a Realm of Stagnation (Dennis, 2017). Some of these factors were generational poverty, situational poverty, learning disabilities, cognitive
disabilities, and students who were learning English as a second language (Beegle, 2015a).

School districts voluntarily implement or were required to implement supplemental reading programs that offer assistance and were designed to help students who exhibit reading deficits or what some educators and researchers term “at-risk” (FDOE, 2017a; Vasquez et al., 2011). These supplemental reading programs focus on fluency, vocabulary, word study, and comprehension. Third-grade teachers utilize whole, small, and individualized (side by side) groups as they saw fit for their particular group of students.

**Socioeconomic Status’ Impact on Literacy**

Low socioeconomic status (SES) of families had detrimental and lasting effects on their children’s emergent, practical, and progressive literacy skills. Perparim (2014) investigated socioeconomic differences among students and its effect on reading performance. In the researcher’s multilevel analysis of data derived from Programme International Student Assessment scores of 4,600 students, she found relationships between SES and school characteristics. Also, higher academic achievement was more prevalent among students living in medium to high socioeconomic homes as opposed to lower academic achievement existing among student living in low socioeconomic homes, and this contributed to the schools’ characteristic regarding accountability (Jensen, 2013). Further, Perparim (2014) contended “good schools were those that have simultaneously high average achievement and equitable distribution of achievement among students from different backgrounds” (p. 36).

Likewise, McConnell and Kubina (2016) discussed, through their study, how SES connects with parents’ participation in their children’s education. For example, parents’ participation in their children’s education was usually dependent on the parents’ education background (Niklas & Schneider, 2014; Piazza & Duncan, 2012), which impacts SES of a
particular family (McConnell & Kubina, 2016). Further, these studies connect to the research because low SES was prevalent amongst the students attending COTR and EWES (COTR, 2017; EWES, 2017). In addition, whether generational poverty, first-generation poverty, immigration status, or sudden familial events caused the low SES, it tended to have a substantially negative effect on these children’s in-home education (ages 0 to 4), and their subsequent formal academic readiness (Katzir, Goldberg, Aryeh, Donnelly, & Wolf, 2013).

As it further relates to the research, a significant number of third-grade students attending COTR and EWES receives free lunch (COTR, 2017; EWES, 2017). Free lunch certification was one of the criteria used to determine if a student lives in a poor, middle class, or affluent household (Gibson et al., 2011). For the 2017–2018 school year, certified free lunch recipient made up 95% of all students who attend COTR and 97% of the third-grade students (COTR, 2017). Likewise, during the 2017–2018 school year, 90% of all students who attend EWES and 92% of third-grade students were certified as free lunch recipients (EWES, 2017).

Parents’ Impact on Literacy

Parents had a holistic and lasting impact and effect on the literacy acquisition and development of their children (Worcester, 2013). Between the ages of 0 to 4, children spend the majority of time in the presence of their parents, legal guardians, and/or loved ones (Niklas & Schneider, 2014). As such, parents’ fluency level, ability to read, write, and intentionally and purposely expose their children to the appropriate amounts of varying words will have a lasting/permanent effect on their formal schooling readiness, forward growth, and transformation (McConnell & Kubina, 2016). When parents lack the appropriate means, or skill sets to provide literacy education, encouragement, and praise when their children were between the ages of 0 to
4, reading delays, deficits and difficulties were more likely to develop and persist (Collier & Auerbach, 2011; Taylor, Greenburg, & Terry, 2016).

Further, Taylor et al.’s (2016) research examined the relationship between parents’ literacy skills and their preschool children’s emergent literacy. One hundred and ninety-two people (half parents (96) accompanied by their child (96)) participated in a quasi-experiment. This research utilized a causal-comparative analysis and found there was a relationship between parents’ educational level and their children’s emergent literacy. For example, educated parents’ children were more likely to be functioning at or above grade level as they began their formal schooling than children of parents who were not educated or dropped out of school. In the research, parents will not participate in this study; the only effect parents could have on the research would be solely extraneous. For example, parents can only influence their child’s or children’s academic achievement from a home environment perspective, and/or point of view. There was no control over whether or not this will take place or to what extent or intensity the home environment intervention will be applied (if any at all).

Niklas and Schneider (2014) examined the effects of home literacy environment (HLE) on kindergarten students. The HLE involves “various child and family characteristics (which) have been identified as important predictors of children’s linguistic abilities, such as intelligence” (Niklas & Schneider, 2014, p. 491). These characteristics were “the reading behavior of parents, the frequency a child was read to, the number of books in the home, and the number of children’s books in the home” (Niklas & Schneider, 2014, p. 492). This quantitative study examined 125 students regardless of their socioeconomic status and discovered relationships between HLE and many aspects of obtaining linguistic skills.
Taylor et al. (2016) and Niklas and Schneider’s (2014) studies connect to the research because most of the third-grade participants of the study lived in poverty, as one or both of parents was not working, dropped out of school, or was incarcerated (Piazza & Duncan, 2012). In such homes, parents did not read frequently to their children, and the availability of books was usually negligible as other concerns or situations will tend to monopolize parents’ time and interests (Beegle, 2015a). The research will focus on how a school-wide supplemental reading program affects the reading growth and proficiency of third-grade students. It was important to note that poverty was a factor that affects students involved in the research but was not the focus of the study. As such, if the research project focused on poverty, it would deter from learning concise and valuable answers to the research questions.

**Teachers’ Impact on Literacy Development**

Teachers’ instructional effectiveness had been one of the hot topics of debate within the annals of public and private education, professional development, and evaluative criterion from administrative oversight (Welsh, 2014). Teachers were hired to meet the diverse needs of 21st century students through structured and meaningful planning; engaging whole group differentiated instruction, appropriate and applicable informal and formal assessments, regular individual self-reflection and also reflection as a grade-level team (Welsh, 2014; Zakierski & Siegel, 2010). These were the tools for creating, affecting, and then maintaining learning environments that were truly conducive not just to level 1 or level 2 pedagogy, but also to facilitated and mediate learning that involved analysis, synthesis, and judgment (which deals with level 3, 4, and 5) (Dennis, 2015). Consequently, in a year-long study conducted on 10 Title I schools, Apthorp (2006) found a relationship between teachers’ knowledge of content, years of service, and students’ propensity to positively respond to supplemental reading interventions. In
addition, Welsh (2014) qualitatively sought to find ways to heal a school’s ailing reading program. The qualitative study’s data derived from anecdotal notes, observations, and surveys that primarily involved the teacher’s feelings, thoughts, and actions regarding student-centered learning, professional development, and implementation of structured and adequate reading instructions. These two studies were relevant to the study because they both, via the gathered and analyzed data, acknowledged the need for effective instruction and continued professional development, which holistically impacted any remedial or supplemental reading program.

Further, as it pertains to the research, ERT (the treatment of the research) will be implemented individually by third-grade teachers. Interestingly enough, nine third-grade teachers who worked at COTR during the 2017–2018 school year, and five out of the nine teachers taught at COTR when the school received a failing grade from Florida State Department of Education (FDOE, 2017a). However, four out of the five teachers received effective or highly effective evaluations. The other teachers on the COTR’s third-grade team were first-year elementary school teachers (two), or transfers from other schools in the district or state (two).

Seven third-grade teachers worked at EWES during the 2017–2018 school year (EWES, 2017). The third-grade teachers worked at EWES for at least the last three years; years where the school maintained a state grade of C. All seven teachers received effective or highly effective evaluations from their principal.

Since the archival data for the research will derive from COTR’s and EWES’s third-grade students, transparency was a required practice as it relates to third-grade teachers’ qualifications, years of service, effective/highly effective evaluative status, and what each COTR third-grade teacher utilizes ERT for in the individual classes (Apthorp, 2006). Pedagogical wherewithal and effectiveness were important to this research as it pertains to COTR’s third-
grade teachers’ approach to implementing ERT. Further, COTR’s and EWES’s third-grade teachers’ awareness regarding language arts/reading content, and aptness specific and necessary for pedagogical fluency as they strive to positively impact the reading proficiency levels of their students’ reading capabilities (Apthorp, 2006; Welsh, 2014; Worcester, 2013).

Students who attended a Title I school usually faced more adversities (at home and in school) than the average student who attended school in the United States. As such, it was reasonable to suggest that teachers who worked in a Title I school also dealt with heightened students’ related issues and concerns. The third-grade teachers at COTR and EWES were dealing with more than what the average teacher was expected to accomplish, professionally, which was noteworthy to the research.

**Sustaining Growth: Retention of Knowledge Gained Through Supplemental Interventions**

Quick fixes or temporary improvements in students with reading deficits or who were “at-risk” were not desirable, practical, or viable outcomes (Goldstein et al., 2017). Instead, sustained improvements and/or achievements were the spoken and unspoken goals and/or outcome of supplemental reading programs (Al Otaiba et al., 2014). Further, sustainable improvements were some of the parts of what make a supplemental reading program reliable, credible, and applicable (Welsh, 2014; Zakierski & Siegel, 2010). If students were not going to sustain improvements and/or achievements, then a particular supplemental reading program will most likely be discontinued, and another intervention put in its place (Dennis, 2015; Welsh, 2014).

Powers and Mandal (2011) evaluated the need for the Tier system/RTI as a means of ascertaining what kinds of individualized interventions would best serve students with learning deficits. The researchers found the Tier system/RTI was needed, and their conclusion and
recommendation highlighted the need for qualified and expert personnel providing supplemental service to students with deficits. In addition, Al Otaiba et al. (2014) examined first-grade students’ response to reading intervention and probed the propensity of false positive when implementing a Tier system/RTI. These researchers voiced concerns about whether or not the first-graders were retaining/sustaining new knowledge and growth. Al Otaiba et al. (2014) recommended that students were more capable and likely to retain new knowledge and growth if the Tier system/RTI was maneuverable to specific needs of students with reading deficits and those who were at risk.

Similarly, Bennett, Gardner, Ramnath, and Council (2017) found, through their research on second-grade urban learners receiving cultural appropriate computer-assisted and repeated-reading intervention, there was retention of new knowledge and growth. After three months of receiving cultural relevant computer-assisted and repeated-reading intervention, the second-graders significantly retained new knowledge and growth gained at the beginning of the study. Bennet et al. (2017) support the Al Otaiba et al. (2014) findings that a combination of specially individualized interventions will enhance students’ ability and/or propensity to retain new knowledge and growth.

As it relates to the research if ERT (the treatment that will be used by COTR) helps students improve, achieve, and become better readers, will students maintain/retain the improvement and achievement responses? The research will utilize ERT as the treatment for helping/assisting third-grade students’ performance on three key reading assessments. ERT had never been researched and studied in this fashion. The research offers a different approach, method, methodology, and potential implications for sustained achievement and improvements of third-grade students’ reading performance.
Digital Advancements of the Time and Their Influences on Reading Development

In the 21st century, the discussion of supplemental literacy program cannot be holistically dissected and synthesized without including digital influences and/or infiltration of commercial supplemental reading products/programs into the classroom. The 2017–2018 school year was the first year elementary schools in Desert County, Florida were required to implement the use of the iReady within their instruction, assessments, and data-driven remediation. Desert County was a pseudonym county used to protect the confidentiality of students, students’ data, and teachers. iReady was approved by Desert County School District’s reading department through the advice of consultants. Before the unilateral implementation of iReady in all elementary schools, iStation was the district’s approved forerunner (personal communication, March 2, 2018). iStation was a renown e-learning apparatus, but district personnel, consultants, and teachers felt iReady was the new, revolutionary e-learning program that would best impact Desert County School District’s students (personal communication, October 11, 2017).

Desert County School District was excited about iReady, its many learning features for student and instructional features for teachers (personal communication, March 2, 2018). The potential for students to effectively learn and grow through the use of the iReady web-based program piqued and held the interest and enthusiasm of academic coaches and administrators at the school of the research and other elementary schools in the school district as well (personal communication, October 11, 2017). As a result, the official and holistic installation of the iReady web-based learning program into elementary schools in Desert County School District followed (personal communication, October 11, 2017).

Bennett et al. (2017) investigated the effectiveness of a computer-assisted reading supplemental program versus teacher-guided supplemental reading interventions. This
experimental study found that the difference between the achievement level of students who received teacher-led remedial reading intervention versus remedial reading intervention involving computer-assisted instruction was negligible. Vasquez et al. (2011) researched the viability of online tutoring services offered to students at risk of reading failure. They found the online tutor services were just as helpful to students at risk of reading failure as face-to-face tutoring/supplemental reading intervention.

Similarly, Gibson et al. (2011) examined the impact of Reading Naturally Software Edition (RNSE) would have on first-grade students’ oral reading fluency. The results were promising as the first-grade students who used the RNSE showed marked improvements in their posttest scores when compared to their pretest scores. These and other types of computer-assisted remedial and supplemental instruction had become a normal part of the 21st century’s data-driven instructional, supplemental remediation, and pedagogical expectations (Gibson et al., 2011). These studies were pertinent and connect to the research because third-grade teachers at COTR and EWES use a web-based supplemental reading program called iReady. In addition, iReady can be utilized for ERT (treatment for the research) and also, third-grade students completed a series of iReady growth monitoring assessment diagnostics throughout the school year. As such, at COTR and EWES, iReady was utilized as an essential pedagogical tool for data-driven flex grouping, remediation, and assessment of third-grade students.

Review of the Methodological Issues

There were innate positives and limitations when utilizing a causal-comparative research design for analyzing data, inferring, and discussing implications. Causal-comparative means the relationship of the differences that exist between members of a population and the probable cause of that difference (Marley, 2007). For example, when one variable changes, the other
variable changed. Also, interference can be unavoidable; life events, situations, circumstances, and other variables can skew the results of data used in causal-comparative research design. There was little or no control over the interference that may skew the data results of the research derived through a causal-comparative research design analysis.

**External Validity Issues**

There were many diverse threats to the internal and external validity of the research. Many of these validity threats were affiliated and associated with Title I schools, the teachers working at these types of schools, their students, and the students’ individualized situations and needs (Creswell, 2014). For example, Title I schools were notorious for serving families experiencing socioeconomic deficits such as poverty. Poverty was an extraneous variable that weighed heavily on students’ reading aptitude and their performances on all levels of testing (informal and formal assessments) (Payne, 2013). However, poverty was not measured as an independent variable in the study because poverty was not the focus of the research. Prudence guides the need to be mindful of the powerful effects poverty had on the totality of the participants’ educational careers (Beegle, 2015b). The powerful effects of poverty relative to the research added new information and knowledge to the discussion of Title I third-grade students who lived in poverty, had reading deficiencies and delays and received intervention service from a supplemental reading program (Creswell, 2014).

**History and Maturation**

Students mature and show growth at different rates (Jensen, 2013). These occurrences were multi-faceted, and much more exacerbated in Title I schools, and this was because of the many different dynamics at play that affects students’ academic performances (Al Otaiba & Fuchs, 2006)—particularly at COTR. For example, five students in the researcher’s language
arts class appeared to have undiagnosed learning disabilities, which holistically affected their abilities to understand, assimilate, incorporate, and accommodate new information and knowledge into their current mental structures and schemas. As such, growth, aspirations, and ambitions were exhausted and frustrated in these types of students because they cannot successful understand reading material fast enough (Erickson, Derby, McLaughlin, & Fuehrer, 2015). Further, only one of five parents followed up on possible learning disabilities when notified about educational concerns. The other parents never followed up, and in some cases just ignored the stated concerns, whether previous or persisted. Nonetheless, these types of histories and maturation hurdles that were experienced by the participants of the research explicitly and implicitly impacted the internal validity of the results and, on a wider scale, the result’s implications.

Regression

Also, the majority of students attending COTR and EWES reside in households where Spanish was the primary language of communication (COTR, 2017; EWES, 2017). Further, any significant time off from the formal learning environment (school) did not work in favor of students who lived under these conditions (Klingner et al., 2006). Time off for students usually occur during weekends, holidays’ observance, and absenteeism. As such, regression was expected to be a significant factor when it comes to sustaining expected gradual reading and reading comprehension growth of third-grade students, informal and formal testing results, and their self-confidence.

Similarly, at COTR and EWES, there were a significant number of students who lived in households where English was the primary language. However, very little educational follow up or follow through was present or maintained in the home environment (Taylor et al., 2016). For
example, parents were not involved in their children’s educational statuses or performances because other familial matters weigh or weighed more important at the time. If there was not a sufficient or obvious oversight in the home environment, a child usually did not stay on task (do/complete homework and other reading assignments) (Niklas & Schneider, 2014). Subsequently, regression was also expected to be at play as it impacted the internal validity of the results and, on a broader scale, the results’ implications.

**Testing and Instrumentation**

At a Title I school like COTR and EWES, many students were transient. Therefore, a significant number of third-grade students who took the Reading Interim Form 1 at COTR and EWES may not be present to take the Florida Standards Assessment at their respective school. This situation had occurred because some third-grade students’ families relocated, while other third-grade students transferred to closer neighboring schools, or for a variety of other family-structural reasons. Additionally, students were admitted to COTR and EWES for a variety of reasons as well. For example, massive student turnover frequently occurs, including in my third-grade class at COTR. For the most part, this was also the case for the other eight third-grade classes at COTR, and it was reasonable to assume this was the case for third-grade classes at EWES.

As for instrumentation, the third-grade Reading Interim Forms 1, and the third-grade ELA FSA had a higher level of difficulty as the third-grade ELA FSA was intended to assess what third-grade students learned throughout the entire school year. Additionally, the number of questions on the stated assessments varied slightly. For example, the pending archival data revealed the third-grade Reading Interim Form 1 had a total of 53 questions, while the third-grade ELA FSA had 50 questions. As such, a causal-comparative approach to data analysis was
not designed to take these types of extraneous variables into account even though they affected the validity and reliability of the data on various levels (the research focus was ERT). A causal-comparative approach was chosen as a means of best answering the research questions and adding new knowledge to the discussion of a supplemental reading program’s effect on the reading performances and achievement of third-grade students attending a Title I school.

**Methodology Issues Within the Literature**

The review of the literature revealed and connected prior research that supported the research, utilized a quantitative approach to examine and/or analyze gathered data. Currently, the literature matrix consists of 45 research and scholarly articles, and more than 30 out of them utilized a quantitative approach. Further, only five of the research articles utilized a qualitative approach, while three of the articles found it beneficial to utilize a mixed-method approach.

Consequently, the reviewed literature brought to the forefront methodology issues and concerns about whether or not the results and implications applied to other populations. For example, the quantitative research approach did not utilize observational/anecdotal data as part of the analysis of data. This tethered gap in the researches’ data and data analysis, may have unintentionally excluded data and/or facts that could have been insightfully and may have suggested a different (more effective) research design for gathering and analyzing the data for the research (Creswell, 2014). Also, the gathered literature may indirectly lead future researchers to utilize only a quantitative research design to analyze this type of data, but this was not the researcher’s intent. The researcher conducted a random search for literature through various academic websites and databases, and the compiled literature support to the focus of the research. The majority of the compiled literature utilized a quantitative research design. Perhaps
this was just a coincidence, or maybe most research topics related to the research used a quantitative research design.

Also, a number of the research in the literature appeared hurried, and therefore the totality of the results also appeared vague and perhaps even unjustified. There could be methodological issues associated with those studies if some of the studies were rushed. For example, the study conducted by Boudreaux-Johnson, Mooney, and Lastrape (2017) does not have a literature review section. As such, if the two research questions were not effectively and holistically answered through the procedures, analysis, results, and implications/discussion portions of the article, then issues may exist. Likewise, research conducted by Katzir et al. (2013) revealed concerns that brought about methodology issues, because there was not a literature review section either. Due to this fact, these researchers may have failed to adequately investigate previous research on the topic, establish a basis for their research, and why or how their research was essential, of interest, or could significantly add to the existing topic. Also, research, which examined preparing college students as effective literacy tutors for urban children, was initiated by Kim and Warren (2013). However, their research provided a literature review that totaled two paragraphs. In this case, two paragraphs may be insufficient for the researchers to inform readers/their audience about past research, the purpose, and the direction of their research. Again, the mentioned deficiencies in the above researchers’ approaches have created methodological issues and concerns that persist.

Just as important, the gathering of the literature for the research revealed many research articles that utilized small populations. The use of small populations in research directly impacts the reliability of the results; particularly, as to whether or not the results could be effectually and holistically applied and generalized. For instance, a study that examined the effectiveness of
parental teaching of children only utilized three parents and three children (McConnell & Kubina, 2016). Also, in a quantitative case study, Powers and Mandal (2011) examined two Tier III students (one in the third grade and the other in the ninth grade) and their need for professional interventionists. Methodological issues were present and may have affected applicability because the sample of the small sample size and the lack of diversity as it relates to the participants.

The literature compiled for the research suggests the use of a pretest/posttest causal-comparative analysis of the data was a common approach to assessing progress, growth and ascertaining milestones within many academic subsets and sets of reading (fluency, comprehension, and vocabulary development). For example, Gibson et al. (2011) employed a pretest/posttest to learn if a computer-assisted program (Read Naturally Software Edition) would assist in the fluency development of African-American students. The results of the pretest/posttest analysis revealed that all of the African-American students showed improvement. Likewise, Meeks, Martinez, and Pienta (2014) utilized a pretest/posttest to find out if there was a significant difference in students’ fluency achievement when computer-assisted reading software (Edmark Program) and teacher-directed instruction were compared. The students who received teacher-directed reading mediation scored higher on the pretest/posttest than students who received reading mediation through the Edmark Program. In another research project that utilized a pretest/posttest design, Goldstein et al. (2017) used a pretest/posttest to determine if students would achieve higher scores in reading through the implementation of the PA-th to Literacy curriculum. The results of the analysis revealed the difference in the pretest/posttest data was negligible.
In conclusion, the research had a causal-comparative design; four sets of third-grade archival data were utilized (Reading Interim Form 1 and ELA FSA scores from both schools). A pretest/posttest format was an approach to analyzing the archival data. The data analysis and results were used to answer the four research questions, which are:

1. To what extent did ERT, a school-wide supplemental reading program, improve the reading proficiency of third-grade students with diverse reading needs?
2. To what extent did the reading proficiency of third-grade students improve who were not receiving ERT intervention services?
3. To what extent did the reading proficiency of third-grade students differ when the scores of those who receive ERT and those who do not receive ERT intervention services were compared?
4. To what extent did third-grade teachers effectively utilize ERT to meet the needs of their students best?

Further, the reviewed literature review (past research) favored the utilization of causal-comparative research design, as most research in the literature review utilized a quantitative-type research design. The causal-comparative research design may be instrumental in adding significantly different information and knowledge to the topic of school-wide supplemental reading programs and their alleged or potential effectiveness. When archival data was utilized, researchers must be aware of the limitations and reliability issues of such data (Shultz, Hoffman, & Reiter-Palmon, 2005). For example, archival data could quickly become useless and irrelevant because of its outdated status.
Synthesis of Research Findings

The difficulty involved in children acquiring progressive literacy skills was a different concern, which inundates the infrastructure of United States’ education (Hausheer et al., 2011). As it pertains to reading proficiency, many children were starting their formal education careers at risk, with deficits, and/or perform below-level (Payne, 2013). The literature for the research suggested various and effective ways for such children to acquire progressive reading skills, and the research findings suggested there was hope for children that have reading deficiencies, deficits, and difficulties (Bennet et al., 2017). Also, the veracity of the literature suggested for such children in United States’ school systems experienced or were experiencing significant reading difficulties (Beegle, 2015b). In addition, the literature implied educators and researchers were aware of United States’ children’s reading deficiencies, have attempted and were attempting to understand the nuances and circumstances, which allow this persistent condition to exist, and in some cases, thrive (Meeks et al., 2014; Taylor et al., 2016; Welsh, 2014).

Reading Fluency

Throughout a child’s formal and informal educational careers reading fluency was a consistently developed skill (Martin et al., 2014). When children read fluently, they use many literacy strategies, which help them see words, quickly decode their sounds, and enunciate them (Vander Kooy-Hofland, Bus, & Roskos, 2012). Further, children’s ability to enunciate the words they see in a bright and articulate fashion was most important when it comes to reading fluency (Erickson et al., 2015). Some educators believed building children’s vocabulary skills supported growth, and gradually enhanced children’s abilities to decode words, their meaning, and implicitly affected fluency development (le Roux, Swartz, & Swart, 2014). As such, these educators and researchers felt that reading fluency does not exist without comprehension of what
was being read. According to the literature, other educators and researchers believed developing phonological awareness in children was a necessary part of reading fluently (Calhoon et al., 2010; Goldstein et al., 2017). These educators and researchers believed children’s ability to identify and understand print and sound work together to create the action/event of reading, which was paramount for proficient fluency in reading. Children’s ability to identify and understand print and sound allow them continued advancement in word and speech recognition, confident articulation, and comprehension of text.

**Teaching Development: Growth Through Collaboration**

Teachers were trained to instruct, facilitate, manage, and support students and their diverse needs. The aptness and effectiveness of teachers’ ability to positively impact reading achievements and performances of their students were realms of discovery and discussion, which seek to pinpoint why, when, where, and how some teachers were effective, while others languish with these types of expectations (Kim & Warren, 2013). Some educators and researchers feel that collaborative literacy teams were creative, practical, and effective ways of impacting the reading performances of students (Boudreaux-Johnson et al., 2017). These types of professional learning communities meet regularly to discuss and share data sets and effective pedagogical techniques (data-driven instructions and remediation). The collaboration had led to the cohesiveness of faculty-staff teams, content uniformity, and students’ reading achievement and improvement. Likewise, some educators and researchers feel teacher/tutor training was an effective and viable way to promote reading achievement and success in students with reading difficulties, deficits, or being at risk of experiencing difficulties with acquiring progressive reading skills (Worcester, 2013). Teacher/tutor training should be specific to the population as students have differing and diverse literacy needs (Vasquez et al., 2011). Teachers/tutors have
been trained in how to communicate effectively and connect with urban students and facilitate improvements in their education (Bennet et al., 2017). Urban students possess unique experiences and needs that require differentiated pedagogical approaches, as such teachers/tutors training should have mutual respect based and driven on patience, empathy, shared feelings of understanding, and community (Beegle, 2015a).

**Use of Computers and Digital Devices to Assist in the Acquisition of Literacy Skills**

We were living in a time where technology and digital advancements have amazed and confounded the masses (Martin et al., 2014). There was a need for children to become acclimated to the technological and digital advancements of the time (Vasquez et al., 2011). Through digital games that were literacy and learning based, entrepreneurs, businesses, and educators have developed an avenue for children and students to connect to technological and digital devices, forms of digital apparatus, and advancements (Gibson et al., 2011). The purpose of these types of literacy learning apparatus was to assist children in the acquisition of progressive literacy skills. The game-like fashion with colorful avatars, cartoon figures, and talking animals comprise the technological and digitally-based literacy learning apparatus. The game-like approach to children’s literacy development piques and then holds their interests and attention as they advance through stages and sequences of achievement/learning, which offer incentive badges and other types of rewards. Some of the technological and digitally-based literacy learning apparatus was adaptive as the software catered to each student’s literacy functional level, which perpetuates inclusion that supports the notion everyone had the potential for literacy growth at their pace (Gettingsmart.com, 2014). The adaptive nature of some of the technological and digitally-based literacy learning apparatus was significant to the research because iReady was a web-based learning apparatus that had been approved for utilization by
every elementary school in the school district where the research took place (DCSD, 2017). iReady was an adaptive learning apparatus designed to cater to students’ differing academic performance levels, abilities, and capabilities (Gettingsmart.com, 2014). In addition, as a supplemental source of remediation, iReady can be utilized. The literature appeared to support the use of technology and digitally-based programming that assisted students in acquiring progressive reading skills.

**Critique of Previous Research**

An analytical critique of literature for the research yielded many similarities in how to proceed in understanding and dealing with the problem. The general problem expressed throughout the literature was children’s reading difficulties, deficiencies, deficits, and whether or not remedial reading programs can positively impact children’s reading performance and achievement. The literature showed there was awareness of the general problem, and the efforts made to find solutions, or at the very least, attempts to lessen the impact of the general problem. The approach for this critique was deductive as the literature was generalized, and then a specific analysis of the literature followed.

**Ethnicity Notwithstanding**

First, the literature indicated that reading deficiencies and deficits in children exist across ethnic boundaries. The literature implied that reading deficiencies and deficits in children were not limited to just African-American or Hispanic-American children but occurred in virtually all of United States’ ethnic groups (Payne, 2013). United States’ children have shown explicit and implicit signs of reading deficiencies and deficits upon their entry into school (Niklas & Schneider, 2014). These delays hindered the affected children’s ability to proceed along with
their peers who had not experienced situations or factors, which curtailed and/or hindered progressive literacy development (Worcester, 2013).

**Home Language Versus Academic Language**

Second, the problem of children’s reading deficiencies and deficits was multi-faceted and not due to a single set of circumstances (Beegle, 2015b). In homes where English was not the primary language exacerbates the problem of children’s reading deficiencies (Savaskan, 2017). School-based interventions and services were put into place after English for Speakers of Other Languages (ESOL) or English Language Learners (ELL) students were evaluated. However, many such students had little opportunity to practice English outside of the school.

Further, any extended time off from school results in the potential loss of ESOL and ELL students’ holistic academic and linguistic gains (Marx et al., 2015). These were difficult situations because children want to communicate with loved ones at home and cherish their heritage that in many cases was brought to fruition through the sharing of the primary language. However, for these types of students to improve on their English reading, writing, and speaking proficiency, persistence and consistent practicing of English was necessary (Talebi, 2012). Perhaps, these types of families may have to compromise for the success of their young English learners (Al Otaiba & Fuchs, 2006; Niklas & Schneider, 2014). For example, the child teaches older family members English, or the family agreed that everyone will spoke English at certain times of day—before school in the morning and for one hour in the evening; the rest of the time they spoke their native tongue.

**Improvements in Reading Achievement**

Third, the populations utilized in the literature were diverse, as their years of formal education range from pre-kindergarten to pre-college. However, the majority of participants in
the literature were pre-kindergarten to middle school students (Amiryousefi & Kassaian, 2010; Niklas & Schneider, 2014). Many of the results and discussion portions of the literature revealed administration of a remedial/supplemental reading program helped children improve in many facets of reading (Goldstein et al., 2017; le Roux et al., 2014). While the treatment varied throughout most of the literature, for the most part, the participants of the studies showed marked and/or notable improvements in their reading performances through the implementations of supplemental reading programs that had clear avenues of understanding and realizations. The amount of research, which had been conducted on the topic of what students need for adequate performance, proficiency, and achievement in reading, make it clear a problem exists as some children were not acquiring progressive reading skills, which enable holistic success in formal educational settings (Van der Kooy-Hofland et al., 2012). Also, the marked and/or notable reading improvements relayed through the literature revealed students with reading difficulties, deficiencies, and deficits can improve; reading difficulties, deficiencies, and deficits was not necessarily a permanent status (Perparim, 2014). Advancement in reading performance, proficiency, and achievement were practical and attainable goals if these types of students receive supplemental reading, and in some cases, intervention services. Finally, the literature indicated an evolution of supplemental reading programs and/or intervention services. Schools, schools’ websites, community centers, neighborhood services, college-based tutoring services, partnerships between local businesses, colleges and community liaisons, internet tutoring, and other internet-based services offer supplemental reading programs and intervention services. The host of different supplemental reading programs and intervention services were immensely important to children/students because they provide opportunities for advancement and success through contemporary and technological means (Gettingsmart.com, 2014).
Also, the literature revealed, that in most of the research, children improved due to their participation in remedial/supplemental reading programs. The children ability to improve may suggest that, regardless of external circumstances/situations that may affect the lives of children inside and outside of school, they were adaptable and capable of obtaining different levels of reading accomplishments and successes if given equal and equitable opportunities (Perparim, 2014). However, as mentioned above, the remedial/supplemental reading programs differed, and in some cases, greatly differed. One remedial/supplemental reading program sought to study the impact a family’s structural and functional stability had on the reading performances of the children (Piazza & Duncan, 2012). The researchers found the children’s reading performances, and holistic growth stagnated on many levels when education was a consistent sidebar, and family members’ criminal activities and subsequent incarcerations uproot solidity of employment and permanence of residence. However, the participants of this study were still able to show improvements through a remedial/supplemental reading program. Moreover, the participants’ academic improvement increased even further when the pending release of the incarcerated family members was drawing near (Piazza & Duncan, 2012).

**Majority of the Literature Utilized Quantitative Method**

Next, another commonality revealed through the literature was the propensity for researchers to utilize a type of quantitative-experimental research design for the gathering and analysis of the data for the individual studies. While the actual type of quantitative-experimental research design utilized appeared to vary, it was still notable how much of the literature utilized quantitative-experimental research designs as opposed to types of qualitative research designs (Al Otaiba et al., 2014; Bennett et al., 2017). Such commonalities offered pros and cons for the veracity and reliability of the literature; and, the levels and points of interest of those pros and
cons vary. For example, the meaningfulness and applicability of the quantitative-experimental research designs’ results may not be reliable or credible to much of an extent due to lack of the use of diverse and/or alternative research design implementations (Erickson et al., 2015; Gibson et al., 2011). If diversity of the results was vastly limited, the results and implications may lack the flexibility and maneuverability for assumed generalizations to differing populations, which features the same problem of interests—in this case of the research, reading deficiencies, deficits, and students who were at-risk (Creswell, 2014). Also, the commonality of utilizing quantitative-experimental research designs may indicate, as it relates to the literature, a lack of creativity, innovation, imagination, and expansion of thought (Hallowell, 2011).

Further, the commonality of research design may to some, be perceived or taken as a lack of ingenuity and genuine interest in the researchers finding credible and viable potential solutions to the problem of interests. The uniformity of research design approach can give the impression that literature was filled with duplicated data and results, which does not hold much use for anything (Shultz et al., 2005). Of note, very few of the research projects implemented any follow-up evaluation of students’ growth (Taylor et al., 2016; Vander Kooy-Hofland et al., 2012; Vasquez et al., 2011). As such, retention of reading gains and achievement were unknown. This exclusion in the reviewed literature may have left a gap in the results on the lasting effects of the utilized treatments. No significant data exists regarding the retention of reading knowledge gained through the treatment after discontinuation (Piazza & Duncan, 2012).

**Literacy Deficiencies and Deficit: An International Problem**

Also, the literacy deficiencies and deficits in children were not just an United States’ education epidemic, as the problem and concern of literacy deficiencies and deficit flourish in other countries as well (Talebi, 2012). Immigrants who speak foreign languages do not only
immigrate to the United States. Many immigrants land in other countries around the world due to many circumstances/situations ranging from political upheavals in their home countries, wars, and simply seeking a better life from their families and themselves (Collier & Auerbach, 2011). Children were living in these types of situations, which were similar to the situation of children who immigrated to the United States with their families, attempt to learn the primary language of the new country while still using the native language at home with family members and loved ones (Savaskan, 2017). These types of children require and should receive the same equity of reading and educational interventions services received by United States’ children. Equity of reading and educational intervention services provided these types of children with the services required for reasonable success.

**Positives From the Commonness Within the Literature**

The frequent use of a type of experimental research design for the gathering and analysis of the data featured a few positive insights. Foremost, it appeared that researchers felt that type of treatment would be required and/or necessary for the potential or wanted change/improvement in reading to occur in students’ (the populations’) performance. Hence, researchers may have felt students could not or would not become better readers on their own. Perhaps realizing from renowned theoretical discoveries, and past research, typical students, do not possess the intellectual wherewithal or life experiences to effect needed positive change in their reading practices and regimen. Therefore, a kind or type of treatment was necessary to help/assist students with reading difficulties, deficiencies, deficits, and those at-risk. In addition, the reviewed literature found students’ reading performances usually improved through the implementation of supplemental reading programs, other types of intervention and services.
Thus, the reading performances of students with reading difficulties, deficiencies, deficits, and those at-risk mostly showed varying levels of improvement through intentionally planned, strategic, and structured reading interventions, services, and remediation. While the effectiveness of the level of treatment and its sustainability differed in many aspects and varying levels, most of the treatments achieved positive change and improvement in students’ reading performance. To further emphasize this point, the review of the literature found supplemental reading programs, interventions, and other remedial services still helped children improved in reading even if they lived in poverty, had incarcerated parents, lived in homes with a primary language other than English, had learning disabilities (LD), and/or experienced other types of the family structural issues usually exhibited traits of reading deficiencies, deficits, and were at risk, supplemental reading programs still helped them to improve.

Based on this review of the literature, there was sufficient reason for thinking that an investigation examining the impact a school-wide supplemental literacy program may produce significant or noteworthy findings. The reviewed literature uncovered conceptual frameworks, populations, and methodologies aimed at understanding and ascertaining what would or could effectively assist students with reading deficiencies, deficits, and those at risk. Further, the literature review had provided strong support for the type of purposed research design. Therefore, I intend to answer the following research questions: How did a school-wide supplemental reading program influence reading improvement and achievement in these third-grade students, and what effects did third-grade teachers had on third-grade students’ reading improvement and achievement?
Summary

This chapter presented a review of the literature that contributes to the understanding of reading difficulties, deficiencies, deficits, and those at risks, and some of the variables that affect third-grade students’ ability to improve as readers. This chapter showed how past and current research provided data that was relevant to the research questions and supports the need for further exploration on the topic of students experiencing reading difficulties, deficiencies, deficits, and those at risk. This chapter provided an analysis of the effectiveness of teachers and other professionals who implement supplemental reading programs, populations that often experience reading difficulties, interventions and/or treatments utilized, and other extenuating circumstances and/or situations, which create reading difficulties and allows the dysfunction to persist.

This chapter began with an analysis of teachers’ effect on providing supplemental reading interventions and services to students. Teachers play an integral and holistic role in the reading achievement of their students. The literature suggested that minimizing this fact cannot and should not occur. Further, teachers were usually involved in the administration of supplemental reading assistance to students who were exhibiting reading difficulties, delays, deficiencies, deficits, and those at risk. This information was consistent with the expectations of the teachers’ role in the research. Third-grade teachers at COTR implemented the treatment (ERT) to their homeroom classes. The implementation of supplemental and intervention services for positive change in reading proficiency was given to every group of students. As such, through the utilization of ERT, COTR’s teachers were expected to individualize instruction and application for their students. EWES’s third-grade students’ reading proficiency scores served as a quasi-control group/population in the research. All in all, teachers at both schools must know their
students, accommodate for ELL students and students functioning below grade level, while still meeting the needs of students who were performing at grade level or above. Therefore, teachers connected with this research must show effectiveness in pedagogy, instruction, and specific learning strategies.

Also, the literature review examined the effects of socioeconomic status had on children’s reading readiness, aptitude, and achievement. The educational backgrounds of parents/guardians had a connection with socioeconomic status. The literature review found relationships between education backgrounds of parents/guardians and the socioeconomic status of the family. The literature review suggested parents’ education level impacted their children’s access to learning within the home environment; access to basic, classic, contemporary utensils of learning—pencils, paper, crayons, books, building blocks, exposure to large amounts of common and varying words using computers and digital devices with internet access. In addition, the literature suggested both factors affected the reading readiness of children upon the start of their formal educational careers. The socioeconomic status and educational backgrounds of third-grade students’ parent was pertinent to the research because COTR and EWES were Title I schools. Students who attend Title I schools often live in families with low socioeconomic status (Bright Hub Education, 2016; USDOE, 2014). Low socioeconomic status was an extraneous and powerful variable, which must be noted and discussed as part of the implications of the research, although not measured for its effect on the reading performance of third-grade students. The reason why poverty was not measured was that it diverted focus from the research questions and discovering clear, useful, and applicable answers.

Next, the literature review examined students’ retention of new knowledge gained through supplemental reading programs. Students experience particular trouble with retention of
new reading skills, strategies, information, and knowledge when they were not practicing at home. A significant number of third-grade students that was involved in the research lived in homes where Spanish was their primary language. Further, the literature showed that such students often exhibited small or minimal reading growth as they were not universally practicing speaking, writing, and reading English during their time off from school. The researcher found no existing research into reading problems of and solutions for students from predominantly non-English speaking low SES families at a Title I school.

This chapter concluded with an overview of technology’s expansion in the United States’ education infrastructure. This fact was acknowledged because technology and digital learning tools were now a norm for schools in the 21st century. Technology and digital learning devices/tools were regularly utilized daily when the researcher taught at COTR. Technology and digital devices were used to engage students in more positive learning experiences. Further, students were trained and prepared in the utilization of technology and digital devices as they proceed forward in their educational and personal lives to meet their technological and digital needs.

The chapter makes clear the need for more research on the topic of reading, reading difficulties, deficiencies, deficits, and those at risk. The purpose of the causal-comparative study was to determine if a school-wide reading supplemental program improved the reading achievement of third-grade students with reading difficulties, deficiencies, deficits, and those at risk. The researcher am unaware of any research into the effectiveness of the program (ERT). Third-grade students had diverse needs, and the results of the study may shed further light on the literacy crisis in Unites States’ schools.
The methodology section was the following chapter. It discussed the conceptual framework and research questions that drive the focus of the research. Then it outlined and discussed all aspects of implementing the research. This chapter discussed the purpose of the research and then outlined the population and its sampling power. Also, the chapter revealed my rationales for using a causal-comparative research design and archival data. Professional characteristics of third-grade teachers ensued, and reviews of the variables (dependent and independent) of the research project and archival data collection procedures took place. Finally, the research limitations, expected findings, and ethical issues were revealed and deliberated.
Chapter 3: Methodology

Introduction

The conceptual framework for the research, Maslow’s Hierarchy of needs, motivations, and growth, connected with the literature and its review (Maslow, 1971). The gathered literature cited a potential reading epidemic in United States’ educational systems, as young children appeared to be experiencing hurdles, which were both extenuating and profound (Dennis, 2015). Through the literature, these circumstances that affected children’s abilities to obtain progressive literacy skills existed across pre-formal and formal educational spectrums (Payne, 2013).

Further, these particular types of children lacked appropriate reading preparedness and skills prior to beginning formal education and tended to experience diverse difficulties with obtaining progressive reading skills (Goldstein et al., 2017); this is consistent with Maslow’s appropriation of needs, motivation, and growth (Alderfer, 1969; Maslow, 1954). Maslow’s illustrative triad (Maslow’s Hierarchy) contended fundamental needs must be met or achieved before higher (more difficult and complex) needs can be met (Huitt, 2007). For example, before an emergent reader effectively understood how to pronounce words, first the child must have obtained proficiency in what letters were, and then the sounds of individual and combined letters.

Also, Maslow’s Hierarchy of needs, motivations and growth, supports the research’s problem statement and potential solutions to the problem. The problem was United States’ children were experiencing high and persistent levels of reading delays, and deficiencies brought to fruition through detrimental cognitive, social, and educational circumstances and situations (Griffin, 1994; Kim et al., 2011). Maslow (1971) believed when these kinds of delays and deficiencies were present (in this case, United States’ children were facing difficulties in reading), then earlier needs (foundational skills of reading) were not sufficiently met and, in
some cases, were not met at all. In most of these cases, these types of children had insufficient access to basic, classic, and contemporary utensils of learning, which were pencils, paper, crayons, books, building blocks, exposure to large amounts of common and varying words, and the use computers and digital devices with internet access (Beegle, 2015a; Payne, 2013). Also, between the ages of zero and four, these types of children usually were not routinely read to, or read to at all (Jensen, 2013). The gathered literature showed some of these children suffered reading delays and deficiencies because of poverty (socioeconomic status of parents/guardians), having parents with limited education, having teachers that lack understanding, empathy and pedagogical effectiveness, and some of these children lack reading experiences that were engaging, creative, fun, or exciting (Goldstein et al., 2017; Hallowell, 2011; McConnell & Kubina, 2016).

**Purpose of the Research**

The review of the literature suggested that United States’ children were experiencing reading delays and deficiencies. The prevalence of this situation/circumstance appeared to have led to research, which examined different versions of the stated problem of the research, as attempts were made to find short and long-term solutions (McConnell & Kubina, 2016). As such, the study examined the stated problem and potential solutions to the reading needs of these types of children, which were not sufficiently met or met at all. The focus population of the research was third-grade students with reading delays and deficiencies which were attending a Title I school in Desert County, Florida (DCSD, 2017). The treatment that the research population experienced was Extended Reading Time (ERT). All Title I schools with a Florida state grade rating of D or F (D is below satisfactory, and F is for failing) must facilitate ERT supplement reading service to their students (FDOE, 2017a). The Florida state grade rating was
earned by way of third, fourth, and fifth-grade students’ scores on the Florida Standards Assessment (FSA) in reading, writing, math, and science (FDOE, 2017a). COTR currently has a Florida state grade rating of D; but, in recent years had earned an F for failing (FDOE, 2017a).

ERT was implemented for 30 minutes, Tuesdays to Fridays. It was not implemented on Mondays because students at COTR and EWES were released early. ERT was facilitated by all homeroom teachers at COTR and EWES, as teachers had the instructional maneuverability for implementing ERT in the best way they felt would benefit and meet the reading needs of their ELA third-grade students. For example, as a third-grade teacher at COTR, the researcher utilized ERT for word study lessons (learning the commonality and patterns of words). The researcher’s rationale for this approach was that most of his ELA third-grade students functioned below-level in decoding sound to corresponding letters, understanding the commonalities of words, and appeared deficient in spelling second and third-grade level words. The purpose of the research was to learn if ERT improved third-grade students’ reading proficiency and if third-grade teachers utilized ERT time effective. Further, after reviewing the literature, the researcher did not find similar research on a supplemental reading program that featured third-grade students with diverse reading needs.

**Research Questions**

1. To what extent will the reading proficiency of third-grade students differ when the scores of those who receive ERT and those who do not receive ERT intervention services are compared?

2. To what extent will third-grade teachers effectively utilize ERT to meet the needs of their students best?
Null Hypothesis

1. There will be no significant improvement in third-grade students’ performance on assessments (Reading Interim Form 1 and ELA Florida Standards Assessment (ELA FSA)) used to analyze the effectiveness of ERT.
2. There will be no significant improvement in non-ERT third-grade students’ performance on assessments (Reading Interim Form 1 and ELA FSA).
3. Third-grade teachers will not have effectively utilized ERT time at COTR.

Alternative Hypothesis

1. There will be a significant improvement in students’ performance on assessments (Reading Interim Form 1 and ELA FSA) used to analyze the effectiveness of ERT.
2. There will be a significant improvement in non-ERT third-grade students’ performance on assessments (Interim Form Reading 1 and ELA FSA).
3. Third-grade teachers will have effectively utilized ERT time at COTR.

Research Design

The research utilized a causal-comparative research design. This type of design utilized numbers to discover similarities, differences, and/or significant differences between data sets for tackling problem statements and answering research questions (Creswell, 2014). A causal-comparative research design compared data sets. The four data sets were COTR’s and EWES’s third-grade students’ Reading Interim Form 1 scores, and third-grade students’ ELA FSA scores. One-way ANOVA F-test comparative analysis application compared all data sets.

The research design yielded applicable, interesting, and dynamic results relevant to the problem statement and research questions (Vasquez et al., 2011). For example, the review of the literature supported this type of research design (causal-comparative design) as many research
projects in the gathered literature used a comparative-type quantitative design for analyzing the data sets (Vander Kooy-Hofland et al., 2012). Also, the results from the analysis of the research data may yield results that may apply to populations with similar characteristics (Payne, 2013; Taylor et al., 2016).

**Target Population During the 2017–2018 School Year and its Sampling Method (Power)**

The sample population for the research project was from two Title I elementary schools; about 170 third-grade students were attending COTR, and about 150 third-grade students attending EWES. The transient nature of Title I students (the sample population) affected the total number of third-grade students that took each assessment (Reading Interim Form 1, and the ELA FSA) (DCSD, 2017). The parameter for selecting the sample population was, according to historical academic records of the schools, most of the Title I third-grade students struggled as they possessed a variety of deficits and needs (FDOE, 2017a). Also, the third-grade students’ ages ranged from eight to 11 years, and the researcher has no control over their academic past or how many participated in this research project.

The researcher’s lack of control over the sample populations’ acuity (third-grade students who attended COTR and EWES during the 2017–2018 school year) implicitly increased the sampling power of the research due to the direct randomized effect. There is a sustained power (relevant sampling) on the archival data sets, which were utilized and analyzed through the causal-comparative design. This sustained power was due to the nature and circumstances of how the archival data sets for the research project were brought to fruition. The nature and circumstances are the transient nature of Title I third-grade students, their academic histories as struggling readers, and the researcher’s lack of control over the number of third-grade students that took the Reading Interim Form 1 and ELA FSA.
Also, all third-grade students who attended COTR and EWES at the time of the administration of the third-grade Reading Interim Form 1, and the third-grade ELA FSA took these assessments. However, due to the transient nature of some of the third-grade students (a characteristic of Title I students), their participation in these assessments could be deemed random because the third-grade students that transferred to COTR and EWES during the 2017–2018 school year was by chance. Further, the power analysis for comparative studies with $N = 100$ or more, but less than $N = 500$ is $r \pm .101$ (Jones, Carley, & Harrison, 2003; University of Nebraska-Lincoln, n.d.); this meant about 90% of comparative studies that have the same sample size of the research yielded significant results. A sample of this size tended to yield significant results that were reliable and valid.

**Instruments**

The instruments for the research were two assessments that tested third-grade students’ improvement in reading proficiency. The first assessment was the third-grade Reading Interim Form 1, which was a formative assessment. Formative assessments were used to inform reteaching practices and future instruction. The other assessment was the third-grade ELA FSA, which was summative. Student learning and achievement over the entire school year were evaluated through a summative assessment (FDOE, 2017b).

**Reading Interim Form 1 and 2**

The Reading Interim Form Assessment 1 was a significant part of the research. As such, detailed information on the origin, compilation, and intent of the Reading Interim Form assessment was necessary to justify the validity, reliability, and implications of the results. Therefore, the researcher called the Desert County school district to inquire about the origin, compilation, and intent of the Reading Interim Form assessment for third-grade students.
attending an elementary school in Desert County, Florida. The contact at Desert County school district selected a team of Reading Specialists, who compiled the questions on the Reading Interim Form assessment for third-grade students made up of school district’s personnel and state consultants with experience in reading and reading instruction (personal communication, April 19, 2018). Also, the contact at Desert County school district told me the questions on the Reading Interim Form assessment originated from “a variety of sources but almost all questions were created and refined to align with the Language Arts Florida Standards (LAFS), and students’ scores were correlated with FSA” (personal communication, April 19, 2018). Of note, the Reading Interim Form assessment was 100% standards-based (personal communication, April 19, 2018). Standards-based refers to national common core standards, which Florida Department of Education adopted into its LAFS for English/language arts (ELA) content material (FDOE, 2017a). Finally, while there were no formal reliability/validity statistics on the Reading Interim Form assessment, their items were vetted through the same process as the ELA FSA (Smarter Balance, 2016).

**ELA Florida Standards Assessment**

Further, the third-grade ELA FSA was the prominent assessment used to ascertain if third-grade students were proficient in third-grade ELA standards. Third-grade students received a promotion to the fourth-grade through their proficient status in third-grade ELA standards. For promotion to the fourth-grade via the third-grade ELA FSA, a third-grade student must have obtained a score of level 2 or higher. Levels 2, 3, 4, and 5 were equivalent to letter grades D, C, B, and A, respectively.

Also, through the process and utilization of algorithmic tests designed to ascertain output reliability, the third-grade ELA FSA was found reliable (FDOE, 2018). The algorithmic tests
assessed Florida state’s third-grade students’ ELA FSA scores for different levels or classes of reliability (FDOE, 2017b). Some of these algorithmic tests were internal consistency, marginal reliability, test information curve and standard error of measurement, the reliability of achievement classification, and precision at cut scores (FDOE, 2017b). For example, the reliability of achievement classification was designed to test for classification consistency and accuracy. Classification consistency and accuracy were “the degree to which a student’s true score and the observed score would fall within the same performance level” (FDOE, 2017b, p. 36). The consistency and accuracy reliability of Florida third-grade students’ ELA FSA scores from 2016 to 2017 were mostly above 93% (FDOE, 2017b).

In addition, various assurances were obtained through the process of testing for validity (strength of the outcome) of the third-grade ELA FSA (FDOE, 2017b; FDOE, 2018). Some of these assurances were ensuring itemized content was aligned with its standards, items measure what it was intended to measure, and collaborating experts conferred on the assessment (FDOE, 2017b). For example, ascertaining test specifications involved selecting items that assessed content depth of knowledge (DoK) (FDOE, 2017b). DoK was the knowledge students should have acquired when meeting grade-level benchmark goals.

Instrumentation and Data Analysis Procedures

Instrumentation

The instruments that obtained third-grade students’ reading proficiency scores for this research project were the third-grade Reading Interim Form 1 and ELA FSA assessments. There were four sets of data that was compared to each other. The first group of scores was COTR’s third-grade students’ Reading Interim Form 1, and third-grade ELA FSA. Likewise, the second group of scores was EWES’s third-grade students’ Reading Interim Form 1, and third-grade ELA...
FSA. Both groups of data were reviewed to ensure students’ and teachers’ names were not presented in any fashion or made part of the analysis. To effectively answer the research questions there were four comparative analyses conducted on the archival data sets. The comparative analyses went as such: 1. COTR’s third-grade students’ Reading Form 1 scores were compared with their ELA FSA scores (pre-test/posttest comparative analysis). 2. EWES’s third-grade students’ Reading Form 1 scores were compared with their ELA FSA scores (pretest/posttest comparative analysis). 3. COTR’s third-grade students’ Reading Form 1 scores were compared with EWES’s third-grade students’ Reading Form 1 scores. 4. COTR’s third-grade students’ ELA FSA scores were compared with EWES’s third-grade students’ ELA FSA scores. The data groups similarities, differences, and significant differences were found via causal-comparative analyses.

**Data Analysis Procedures: Causal-Comparative Design**

SPSS was statistical analysis software used by researchers, and the software compared the research project’s archival data set via a causal-comparative format (Pallant, 2013). The comparative analysis was intended to find similarities, differences, and/or significant differences between the data sets, leading to the discovery of relationships amongst variables (Salkind, 2014). Of note, the researcher utilized a pretest/posttest approach to analyzing two research project’s comparisons (COTR’s third-grade students’ Reading Form 1 scores compared with their ELA FSA scores and EWES’s third-grade students’ Reading Form 1 scores compared with their ELA FSA scores). Also, through the review of the literature for the research, causal-comparative research designs that utilized a pretest/posttest format yielded useful results from their data sets (Al Otaiba et al., 2014; Gibson et al., 2011; Vasquez et al., 2011). The researcher believes the research design for the research project could yield results that would be useful in
tackling the problem statement and research questions. Finally, the results from the analysis were presented in table form, the tables were explained via statistical research wording and expressions, and then the results elaborated upon further for the application, reasoning, implications, and concluding.

**Archival Data Collection**

The collection of the archival data for the research occurred after the researcher had received school district clearance and IRB clearance from Concordia-University Portland. Four sets of archival data were gathered and utilized in the research. The archival data came from COTR’s and EWES’s third-grade students’ scores on the Reading Interim Form 1 and the ELA FSA.

Data from COTR’s and EWES’s Reading Interim Form 1 and ELA FSA were used to ascertain to what extent third-grade students improved as readers. The Reading Interim Form 1 was administered in October 2017, and the ELA FSA was administered in April 2018, which brought about the need for archival data for the research project. If a significant number of third-grade students show improvement and earn promotion to the fourth grade, ERT (school-wide supplemental reading program and treatment in the research) may potentially be deemed useful in facilitating third-grade students’ success.

**Operationalization of Variables**

**Independent Variable**

Instructional effectiveness of teachers working at COTR and EWES were key independent variables. The researcher felt it would be prudent to gather data on COTR’s and EWES’s third-grade teachers’ age, years of service, years of service, current administrative evaluation status, and what third-grade teachers utilize Extended Reading Time (ERT) for in
their homerooms/classrooms. Third-grade teachers filled out a blank table that was similar to Table 1.

**Dependent Variables**

**ERT and Teachers’ Instructional Aptitude**

The dependent variables were relative to the research questions. As such, the school-wide supplemental reading program’s (ERT) effectiveness on third-grade students’ improvement in reading proficiency was dependent on third-grade teachers’ instructional aptness and aptitude.

**Third-Grade Students’ Achievement**

Third-grade students’ improvement in reading proficiency was dependent on the effectiveness of the third-grade teachers’ teaching methods and pedagogical wherewithal. Therefore, the results of the assessments were dependent on third-grade teachers’ instructional aptness and aptitude. Table 2 categorizes the professional characteristics of third-grade teachers working at COTR. Of note, all of the nine third-grade teachers conducted word study lessons during ERT time in their homerooms.
Table 2

Professional Characteristics of Third-Grade Teachers at COTR

<table>
<thead>
<tr>
<th>Teachers</th>
<th>Years of Service as of the beginning of 2017</th>
<th>Years of Service at COTR</th>
<th>2016-17 End of School Evaluation Status</th>
<th>ERT utilized for</th>
</tr>
</thead>
<tbody>
<tr>
<td>Teacher 1</td>
<td>3</td>
<td>3</td>
<td>H.E. (2)</td>
<td>Word Study</td>
</tr>
<tr>
<td>Teacher 2</td>
<td>4</td>
<td>2</td>
<td>E. (1)</td>
<td>Word Study</td>
</tr>
<tr>
<td>Teacher 3</td>
<td>16</td>
<td>8</td>
<td>H.E. (2)</td>
<td>Word Study</td>
</tr>
<tr>
<td>Teacher 4</td>
<td>17</td>
<td>4</td>
<td>H.E. (1)</td>
<td>Word Study</td>
</tr>
<tr>
<td>Teacher 5</td>
<td>0</td>
<td>0</td>
<td>N.A. (0)</td>
<td>Word Study</td>
</tr>
<tr>
<td>Teacher 6</td>
<td>3</td>
<td>1</td>
<td>E. (1)</td>
<td>Word Study</td>
</tr>
<tr>
<td>Teacher 7</td>
<td>1</td>
<td>0</td>
<td>E. (1)</td>
<td>Word Study</td>
</tr>
<tr>
<td>Teacher 8</td>
<td>8</td>
<td>7</td>
<td>H.E. (2)</td>
<td>Word Study</td>
</tr>
<tr>
<td>Teacher 9</td>
<td>1</td>
<td>0</td>
<td>N.E. (-1)</td>
<td>Word Study</td>
</tr>
<tr>
<td>Averages</td>
<td>5.9</td>
<td>2.8</td>
<td>E (1)</td>
<td>All Word Study</td>
</tr>
</tbody>
</table>


Limitations of the Research Design

Archival data was utilized to analyze a potential solution for the problem statement and research questions. There were limitations to utilizing and using archival data. First, archived data was historic, which meant this type of data could be considered too old for this research project (Shultz et al., 2005). The limitations and other inadequacies of archived data are why researchers must be academically cautious when utilizing it. For example, if some archival data can be deemed old, then this type of data may not meet the standards for tackling the problem statement or leading to a potential solution to the research questions (Shultz et al., 2005).
As the means of ascertaining the effectiveness of ERT, the utilization of the population’s (third-grade students’) assessment score is necessary. Further, there were several circumstances and situations relative to the population of the research. For example, COTR and EWES were Title I schools; this status alone encompassed diverse students at risk or who experienced diverse academic and social issues (Perparim, 2014). These academic and social issues can affect third-grade students’ abilities to effectively and/or significantly improve over periods. As such, the use of archival data to tackle the problem statement and potentially find solutions to the research questions was practical because the critical timeline of the research was an entire school year (August 2017 to May 2018). The research questions were geared toward ascertaining the effectiveness of a school-wide supplemental reading program (ERT), and the aptness of how ERT time was utilized by third-grade teachers to help with reading deficits and deficiencies. The research utilized archival data from the 2017–2018 school year. Further, in the case of the research, the convenience and accessibility of the archival data also lend practicality and sensibility to its use.

**Internal and External Validity**

**Internal Validity**

An internal concern, within COTR, which may impact the validity and applicability of the results was the transient nature of students. According to the free-lunch certification of the school (over 95% of students who were attending COTR were free-lunch certified), poverty persists (COTR, 2017). As a result of this fact, these families were susceptible to relocations and other familial structural issues, as opposed to students who lived in middle-class or more affluent households. Therefore, due to the transient nature of students attending COTR, the results of the research may be impacted. For example, several third-grade students at both schools, who took
the initial assessment (Reading Interim Form 1), which was utilized as archival data, was attending different schools other than COTR or EWES for the second assessment (ELA FSA). These types of the internal validity situations and circumstances relative to students who attended COTR and EWES could have negatively affected the totality of the results; and, this and other internal validity concerns must be kept in mind and considered during all phases of implementing the research.

**External Validity**

An external matter at COTR and EWES, which may impact the validity and applicability of the results was; first, Hispanic-American students predominated COTR and EWES student populations (COTR, 2017; EWES, 2017); and, many of these students lived in households where Spanish was the only language spoken at home. Whether the Hispanic-American students were born in United States or immigrated to the United States with their families, only speaking Spanish in their homes can affect timely, sufficient, and progressive on-grade literacy development. Further, elongated time off from school, such as Thanksgiving, Christmas, spring, and summer breaks, or excessive absences or tardiness perpetuate regression, and in some cases, loss of the literacy growth and development obtained through COTR. Klingner et al. (2006) reported that academic regression is a phenomenon persisted by various sources. Some of these features may be more elaborated and pronounced in Title I students.

**Expected Findings and Predictions**

Through the administration of the treatment, the researcher predicted that third-grade students attending COTR would show overall improvement as readers; however, the third-grade students’ reading improvement would not be significant. As such, the third-grade students’ reading improvement would be negligible at best. Third-grade students would probably be
negligible was because of the diverse needs of this population. Consequently, this diversity in their needs made the results from the analysis of the archival data dynamic. For example, this population experiences diverse situations (unstable residence), circumstances (single-parent homes), and experiences (immigrant parents who may not speak English), which had a sustained and holistic impact on their reading proficiency, improvements, and advancements. Therefore, in the researcher’s opinion, their reading improvements would be negligible. The negligible reading improvement was dynamic because, according to the literature review, students who receive supplemental reading intervention and service should show marked, observable, and/or significant reading improvements (Gibson et al., 2011; Goldstein et al., 2017; Patoine, 2008). Finally, whether the results were negligible or significant, the research could still add to the body of academic knowledge, which already exists on the topic presented through the problem statement and research questions.

**Ethical Issues**

The researcher abided by all professional and personal standards regarding the safe and confidential handling of documents that had personal information of the students, teachers, and others who were not aware of their involvement in the research. Also, the researcher stored and locked all archival data and accompanying documents, which were related to the research. Furthermore, the archival data will be kept for up to five years and then destroyed. The archival data, its associated information, and documentation were stored in a secure place and only revisited, if necessary, for academic and professional reasons.

The favorable or unfavorable results of the research may unknowingly stigmatize students who have, were, or will attend a Title I school; or unfairly label students who were free-lunch certified recipients. Stigmatizing or unfairly labeling students were not the purpose or
intent of the research; this was a potential ethical concern and the researcher planned to address it in the implications and discussion section(s) of the research.

Additionally, the researcher was a third-grade teacher at COTR during the 2017–2018 school year and that presented a conflict of interest that was ethically-based. For example, the researcher did not manipulate any the archival data or comparative analyses’ results in any way that enabled false reporting on ERT’s effect on COTR’s third-grade students’ reading proficiency. The researcher disclosed this area for concern to delimit it and made transparent any conflict of interest issues. The transparency was intended to increase the external and internal validation of the comparative analyses’ results.

Finally, the IRB approval process required the researcher to submit school district’s data usage approval documentation. The school district’s data usage approval documentation indirectly supported the ethical standards of the research project. The school district’s data usage documentation indicated the archival data was secured and original. The IRB approval process intentionally sought support and maintain an ethical research project based on validity and reliability.

**Summary**

This chapter presented how the research project would be conducted. The conceptual framework, problem statement, and research questions were reviewed and remained the focus of the research. The researcher discussed the purpose of the research, its population, and some of the factors that affected the population’s ability to improve as readers. Also, the researcher mentioned factors that increased the sampling power of the population.

Also, this chapter reviewed the instruments (Reading Interim Form 1, and the ELA FSA) that were used to ascertain if the treatment (ERT) improved third-grade students’ reading
performance and proficiency. The origin, development, and compilation of the items (questions) on the instruments were revealed and discussed. The variables (dependent and independent) of the research, some of the professional characteristics of third-grade teachers involved in implementing the treatment (ERT), and data collection procedures were revealed and discussed. The researcher felt that revealing some of the teachers’ characteristics was necessary to holistically answer the second research question (Were third-grade teachers, at COTR, effectively utilizing ERT?).

The causal-comparative research design was used to analyze the archival data of the research project. The researcher felt that using a causal-comparative research design to analyze the archival data was the most reasonable, applicable, and practical. The limitations (internal validity, external validity, and reliability) were discussed. Finally, the expected findings and all ethical issues were disclosed.

Chapter 4 will reveal the data analysis and results from the research project. The chapter starts with a reiteration of the research questions as the guiding focus of the data analysis and results. Afterward, there is an overview of ERT (the treatment of the research project) through the restatement of its background, intent, and perceived effects on Title I students. Then, a synopsis expounds upon the sample populations as their similarities and differences are revealed and made clear. Following that, the researcher shares his predictions of the data analysis and results as he utilizes knowledge gained through the literature review. Finally, the revelation of the actual data analyses and their conclusions will lead to pathways to Chapter 5’s discussion and implications.
Chapter 4: Data Analysis and Results

Introduction

This research project examined the effectiveness of a supplemental reading program named Extended Reading Time (ERT) and looked at some variables that affected its effectiveness. Florida state and Desert County mandated ERT services in all elementary schools academically performing below-level in reading. Two Title I school’s third-grade students’ reading scores were used to ascertain ERT’s effectiveness on reading proficiency. One of the Title I schools received the ERT treatment and the other Title I school did not receive the ERT treatment.

Third-Grade Teachers’ Instructional Effectiveness

The research project examined third-grade teachers’ pedagogical impact on third-grade students’ reading proficiency improvement. Third-grade teachers at both schools (the Title I school that received the ERT treatment and the Title I school that did not receive the ERT treatment) impacted third-grade students’ performance on the formative assessment (third-grade Reading Interim Form 1) and the summative (third-grade ELA FSA). Third-grade teachers’ ability to effectively teach and facilitate third-grade level ELA content materials on a holistic scale impacted third-grade students’ reading proficiency.

Overview of Research Project and Its Results

An elaboration of how the research project’s archival data ensued, then the sample population was described. Next, the researcher’s predictions of the comparative analyses and the summaries and detailed analyses of the results followed. After, a deliberation that reviewed the researcher’s predictions. The data analyses focused on the research project’s research questions. These research questions were,
1. To what extent will the reading proficiency of third-grade students differ when the scores of those who receive ERT and those who do not receive ERT intervention services are compared?

2. To what extent did third-grade teachers effectively utilize ERT to meet the needs of their students best?

**Null Hypotheses**

1. There was no significant improvement in third-grade students’ performance on assessments (Reading Interim Form 1 and English/language arts Florida Standards Assessment (ELA FSA)) used to analyze the effectiveness of ERT.

2. There was no significant improvement in non-ERT third-grade students’ performance on assessments (Reading Interim Form 1 and ELA FSA).

3. Third-grade teachers did not have effectively utilized ERT time at Cleft of the Rock Elementary School (COTR, 2017).

**Alternative Hypotheses**

1. There was significant improvement in students’ performance on assessments (Reading Interim Form 1 and ELA FSA) used to analyze the effectiveness of ERT.

2. There was significant improvement in non-ERT third-grade students’ performance on assessments (Reading Interim Form 1 and ELA FSA).

3. Third-grade teachers effectively utilized ERT time at COTR.

**The Significance of ERT in Florida’s Elementary Schools**

In Florida, ERT was a state and local district funded the supplemental reading program. This program’s goals were to provide Title I students with the additional reading assistance they needed to progress and succeed as scholars. The additional reading assistance was strategic and
focused on improving word recognition, vocabulary, fluency, decoding, reading comprehension, which led to overall improvement in reading proficiency. Title I schools and teachers had the liberty of implementing ERT in a way or ways that best meet the needs of their particular students. There was no favored or mandated instructional approach or cited curriculum.

During the 2017–2018 school year, third-grade teachers at COTR were given the liberty to utilize ERT in the best way they felt helped their students. As such, all the third-grade teachers at COTR implemented a word study regimen during ERT for the students; the implementation helped their students recognize word patterns, word similarities, and word-parts’ sounds. The word study was decided upon because most of the third-grade students at COTR were below-level readers who featured difficulties in basic word recognition, fluency, and decoding. The overall goals of COTR’s third-grade teachers’ word study regimen during ERT were to activate third-grade students’ confidence in reading through increased fluency, decoding, and comprehension, which in turn would implicitly increase overall reading growth and proficiency.

Also, the research project examined the effectiveness of ERT by comparing COTR’s third-grade Reading Interim Form 1 and ELA FSA scores to East Wind Elementary School’s (EWES, 2017) third-grade Reading Interim Form 1 and ELA FSA scores. EWES receive state and local assistance under the Title I banner. However, EWES was not an ERT mandated school by Florida state education department or the local school district. The reason why EWES was a Title I school but not an ERT mandated school was because of its excelling status. In recent years, EWES has maintained a Florida state educational grade of “C.” EWES’s academic stability in recent years contrasts with COTR’s academic performance in recent years of failing or below-level academic achievement as a school (Florida state educational grade of “D” or “F”).
Background Synopsis: Description of the Sample Populations

COTR and EWES were Title I schools situated in middle-class neighborhoods in Desert County, Florida. During the 2017–2018 school year, COTR’s sample population scores (third-grade students) derived from a total student population of about 950 (COTR, 2018). The reason for the total student body approximation was because of the transient nature of students who typically attend Title I schools. Similarly, EWES’s sample population scores (third-grade students) came from a total student population of about 925 students (EWES, 2017). Like COTR, the reason for the approximation in the total student population was due to the transient of the students who attend Title I schools. The transient nature of the schools’ student bodies caused a constant fluctuation in the total number of students attending at any given time. Both schools employed a high number of certified teachers that served each school’s high number of students.

Further, the number of sample populations’ scores differed because of the transient nature of the Title I students. The total number of COTR’s third-grade Reading Interim Form 1 scores were $N = 177$. The total number of COTR’s third-grade ELA FSA scores were $N = 169$. The total number of EWES’s third-grade Reading Interim Form 1 scores were $N = 154$. Finally, the total number of EWES’s third-grade ELA FSA scores were $N = 169$.

COTR and EWES were chosen to be part of this research project because of their unique similarities. Concerning Title I characteristics, COTR’s and EWES’s student-populations were similar because, demographically, Hispanic-American students dominated (COTR, 2017; EWES, 2017). Further, the Title I insignia brought to the forefront similarities, which were overwhelming and could make some of these students’ unique outliers. Outliers, with regard to, living in poverty, parents possessed limited educational skills, transient home-life environment,
limited in-home schooling from the ages of 0 to 4, started formal educational training with holistic literacy deficits, and existed in a prolonged and struggled realm as it relates to the reading growth process (Dennis, 2017).

However, there were noteworthy differences between COTR’s and EWES’s sample populations. Regarding overall school academic performance, COTR had a recent history as a failing school. After the school year of 2016–2017, COTR managed to advance from a Florida state educational grade of “F” (failing) to a Florida state grade of “D” (below average). In contrast, EWES had a recent history as an excelling school. In recent years, EWES maintained a Florida state educational grade of “C.” The veracity of these facts may have affected the answers to this research project’s questions. Further, the stated facts may be considered significant as it pertains to the researcher’s prediction for the data sets results, the actual data sets’ results, discussion, and implications, which in turn, weighed on how the evidence answered the research project’s questions.

The Difference: ERT

One of the essential differences that could have affected the answers to the research questions and the probable direction this research project was COTR status as an academically struggling school. Due to this status, COTR was mandated as an ERT supplemental services recipient. EWES was an academically improving school. Due to this status, EWES was not a recipient of mandated ERT supplemental services. The reason why EWES was not mandated to receive ERT supplemental services was because of the school’s academic ability to maintain a Florida state educational grade of “C” for three years straight. Its academic stability, as a school, excluded them from an ERT mandated status. However, COTR was mandated because in recent years its Florida state educational grade was “F” or “D.” COTR appeared to be academically
underperforming as a school; as a result, was mandated to receive ERT supplemental reading services during the 2017–2018 school year.

Another critical difference about ERT was how the nine teachers of the third-grade classes at COTR implemented ERT intervention services. There was no school-wide singular expectation for how to implement ERT intervention services. The nine third-grade teachers at COTR utilized word study for ERT. ERT intervention services focused on word commonalities, fluency, and other areas of word recognition that would assist in decoding and reading comprehension. However, the years of service as a teacher/educator vastly differed amongst the nine third-grade teachers at COTR. For example, one of the third-grade teachers was in her first year as a classroom teacher compared with a third-grade teacher with 17 years of teaching experience. As such, there would be a difference in delivery, fluidity, knowledge of content/material, and approach. These types of variances in the instructional pedagogical wherewithal may have affected COTR’s data sets and comparative analysis’ results.

**Processing of the Research Project’s Archival Data**

Desert School Public School District’s research department gave me the approval to use data from COTR and EWES. Desert School Public School District’s data usage documentation/letter was received via email on October 31, 2018, and then forwarded via IRB.net for approval by Concordia University’s IRB process and review board. This research project was approved by Concordia University’s IRB process and review board on December 7, 2018.

After the researcher received approval from Concordia University’s IRB process and review board, all the data points/sets were entered into the SPSS application for data analysis. The data sets were COTR’s 2017–2018 third-grade Reading Interim Form 1 scores, COTR’s
2018 third-grade ELA FSA, EWES’s 2017–2018 third-grade Reading Interim Form 1 scores, and EWES’s 2018 third-grade ELA FSA scores. The Reading Interim Form 1 was a precursor to the ELA FSA. The scores from the Reading Interim Form assessment were formative, as they served to recommend adaptations and modifications in instructional approach, and techniques. The ELA FSA was summative, as it was used to evaluate third-grade student reading proficiency growth over the entire school year and promotion to the fourth grade.

**Variables: Independent and Dependent Variables**

The independent variable, in the case of COTR, was the implementation of ERT intervention services. The dependent variable was third-grade students’ improvement in reading proficiency. The assessments utilized to ascertain third-grade students’ improvement in reading proficiency were Reading Interim Form 1 and the ELA FSA. The extraneous variables that affected the dependent variable were third-grade teachers’ pedagogical effectiveness in deliverable content area materials during ELA block, ERT intervention services, and other forms of remedial reading instructional methods. Another type of extraneous variable that may have impacted the dependent variable was the characteristics of the Title I students. Some Title I students’ characteristics had very little in-home training in reading from the ages of 0 to 4, parents’ low educational status, parents were not involved in their children’s education, and Title I students functioned as below-level readers and needed reading intervention services.

**Reading Assessments’ Scoring Scale**

On a scoring scale of 1 to 5, Desert County Public School third-grade students must earn a minimum score of 2 on the ELA FSA for promotion to the fourth-grade. Both assessments (Reading Interim Form 1 and ELA FSA) were scored or adjusted to a scoring scale of 1 to 5. Table 3 is an illustration of the scoring scale for the Reading Interim Form 1 and the ELA FSA.
Table 3

*Scoring Scale for Reading Interim Form 1 and ELA FSA*

<table>
<thead>
<tr>
<th>Assessment Scoring Scale</th>
<th>Reading Interim Form 1</th>
<th>ELA Score</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Adjusted Scoring Scale</td>
<td></td>
</tr>
<tr>
<td>5</td>
<td>31 to 53 correct answers</td>
<td>Excellent</td>
</tr>
<tr>
<td>4</td>
<td>25 to 30 correct answers</td>
<td>Above Average</td>
</tr>
<tr>
<td>3</td>
<td>20 to 24 correct answers</td>
<td>Average</td>
</tr>
<tr>
<td>2</td>
<td>12 to 19 correct answers</td>
<td>Below Average</td>
</tr>
<tr>
<td>1</td>
<td>0 to 11 correct answers</td>
<td>Failed</td>
</tr>
</tbody>
</table>

The third-grade Reading Interim Form 1 and the third-grade ELA FSA were linked and could be deemed similar. The itemizations and specifications of the third-grade Reading Interim Form 1 and the third-grade ELA FSA were aligned (FDOE, 2017b; State Impact, 2018). After reviewing the printout, the researcher kept all data sets in a secure location.

The researcher performed a one-way ANOVA analysis of the SPSS data. The F-test univariately compared the means of the data sets COTR’s and EWES’s third-grade students’ performance on the Reading Interim Form 1 and ELA FSA. The researcher conducted four one-way ANOVA analyses: (a) COTR’s third-grade Reading Interim Form 1 compared with EWES’s third-grade Reading Interim Form 1; (b) COTR’s third-grade ELA FSA compared with EWES’s third-grade ELA FSA; (c) COTR’s third-grade Reading Interim Form 1 compared with COTR’s third-grade ELA FSA; (d) EWES’s third-grade Reading Interim Form 1 compared with EWES’s third-grade ELA FSA.
T-tests were applicable and most effective on small population sizes and unknown standard deviations (Surbhi, 2018). The sample population sizes for each of the four data sets utilized in the research project ranged from approximately \( N = 150 \) to \( N = 180 \), which was sufficient for producing applicable standard deviations. Of note, the standard deviation is a statistic that measures the dispersion of the data set relative to the mean and is calculated by finding the square root of the variance (Frost, 2017). As such, the utilization of t-tests to analyze the research project’s data sets may have produced results inappropriate for effectively answering the research questions.

On the other hand, an F-test statistically examines the equality of means between two populations (Frost, 2017). One-way ANOVA F-tests were required to sufficiently compare and analyze the data sets because the total scores within each data set group were different. Through comparisons of the data sets, the F-tests found the variance between the means. The variance of a data set was the dispersal of the data points around the mean (Frost, 2017). As such, using F-tests to analyze the research project’s data sets was expected to produce the most relevant and understandable results and helped to most effectively answer the research questions.

Further, this type of analysis was able to determine if the data sets had similar or different means, and if those similarities or differences were significant or not. COTR had 177 third-grade students that took the Reading Interim Form 1 during the 2017–2018 school year. EWES had 154 students that took the Reading Interim Form 1 during the 2017–2018 school year. Also, COTR had 169 students that took the ELA FSA in 2018, and finally, EWES had 169 students that took the ELA FSA in 2018. The type of sample population randomization may have yielded unique results for answering the research questions. Further, this type of involuntary
randomization of the data sets could have enhanced the internal and external validity of the analysis’ results.

**Comparative Analyses’ Results**

**COTR’s Reading Interim Form 1 Compared With EWES’s Reading Interim Form 1**

The Reading Interim Form 1 was the “ad hoc” baseline assessment for this research project. Table 4 is Comparison #1: One-way ANOVA F-test Summary Results of COTR’s Reading Interim Form 1 compared to EWES’s Reading Interim Form.

Table 4

*Comparison #1: One-way ANOVA F-test Summary Results of COTR’s Reading Interim Form 1 scores Compared to EWES’s Reading Interim Form 1 scores*

<table>
<thead>
<tr>
<th>Source</th>
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<th>p</th>
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</thead>
<tbody>
<tr>
<td>Between Groups</td>
<td>1</td>
<td>12.749</td>
<td>12.749</td>
<td>10.209</td>
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</tr>
<tr>
<td>Within Groups</td>
<td>329</td>
<td>410.858</td>
<td>1.249</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>330</td>
<td>423.607</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Comparison #1 Results**

A one-way ANOVA F-test compared the means of COTR’s and EWES’s third-grade students’ scores on the Reading Interim Form 1. Comparison #1 results showed how COTR’s and EWES’s third-grade students’ reading proficiency scores differed at the beginning of the 2017–2018 school year. As such, Comparison #1 answered research question #1 and indirectly answered research question #2. The comparison indirectly answered research question #2 because third-grade teachers were the main facilitators of reading content material. Third-grade teachers’ ability to effectively instruct and teach reading strategies were essential to the reading proficiency status and growth at both schools. COTR and EWES were Title I schools that had
some similarities in terms of demographics and general reading status, but there were also differences that affected the data and results of the comparative analysis.

The results indicated statistically significant difference between the means of the two data sets (COTR’s and EWES’s third-grade Reading Interim Form 1 scores), $F(1, 329) = 10.21, p = .002, \eta^2 = 12.75$. The strength of the relationship between the means of both data sets, as assessed by $\eta^2$, was quite weak, with reading proficiency gains of both schools’ accounting for variance in scores (a variance of 12.75 between the two data sets’ means). EWES’s third-grade students performed significantly better than COTR’s third-grade students did on the Reading Interim Form 1. Table 4 illustrates COTR’s and EWES’s mean score, standard deviation, and a total number of sample participants. Also, Figure 3 is a Means Bar Graph that visually illustrates the schools’ different performance levels.

![Means Bar Graph of COTR’s and EWES’s reading interim form 1 scores.](image)

*Figure 3. Means bar graph of COTR’s and EWES’s reading interim form 1 scores.*
Conclusion for Comparison #1

Using the one-way ANOVA F-test comparative analysis for Comparison #1 (COTR’s Reading Interim Form 1 and EWES’s Reading Interim Form 1) the researcher found statistically significant differences between the means. This discovery could be deemed compelling and/or noteworthy because COTR’s third-grade students received the ERT treatment but performed significantly lower than EWES third-grade students (ERT treatment not received). Further, for this research project, the Reading Interim Form 1 was an “ad hoc” baseline assessment for both COTR and EWES. The data analysis showed at the beginning of the 2017–2018 school year, EWES’s third-grade students were already academically more proficient in reading than COTR’s third-grade students.

COTR’s ELA FSA Compared With EWES’s ELA FSA

The ELA FSA was a summative assessment. For this research project, it served to inform on how third-grade students’ reading proficient improved after taking the Reading Interim Form 1 (from the beginning of the 2017–2018 school year). COTR’s and EWES’s ELA FSA scores were compared with each other to discover if both schools’ reading proficiency improvement were the same or not. Table 5 is Comparison #2: One-way ANOVA F-test results of COTR’s ELA FSA scores compared to EWES’s ELA FSA scores.
Table 5

*Comparison #2: One-way ANOVA F-test Summary Results of COTR’s ELA FSA scores*

Compared to EWES’s ELA FSA scores

<table>
<thead>
<tr>
<th>Source</th>
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<th>MS</th>
<th>F</th>
<th>p</th>
</tr>
</thead>
<tbody>
<tr>
<td>Between Groups</td>
<td>1</td>
<td>12.118</td>
<td>12.118</td>
<td>8.791</td>
<td>.003</td>
</tr>
<tr>
<td>Within Groups</td>
<td>336</td>
<td>463.148</td>
<td>1.378</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>337</td>
<td>475.266</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Comparison #2 Results**

A one-way ANOVA F-test compared the means of COTR’s and EWES’s third-grade students’ scores on the ELA FSA. The ELA FSA was the instrument used to ascertain the reading proficiency growth of both schools during the 2017–2018 school year. Comparison #2 directly assisted in answering the project’s research questions. For example, the results from Comparison #2 revealed that COTR’s third-grade students’ reading proficiency improved during the 2017–2018 school year and suggested that ERT supplemental reading intervention services may have played a role in the reading improvements. In addition, Comparison #2 revealed that EWES’s third-grade students’ reading proficiency also improved during the 2017–2018 school year. Also, Comparison #2 suggested that EWES’s third-grade students’ reading proficiency improved without the utilization of ERT supplemental reading intervention services, and further suggested that third-grade teachers at both schools effectively implemented facilitation of ELA content materials. Also, comparing ELA FSA scores of COTR’s and EWES’s third-grade students showed the differences in their reading proficiency growths.

The results indicated statistically significant differences between the means of the two data sets, $F(1, 336) = 8.79, p = .003, \eta^2 = 12.12$. The strength of the relationship between the
means of both data sets, as assessed by $\eta^2$, was quite weak, with reading proficiency gains of both schools accounting for the variance in scores. Table 5 illustrates COTR’s and EWES’ mean score, standard deviation, and a total number of sample participants. Also, Figure 4 is a Means Bar Graph that visually illustrates the schools’ different performance levels.

Figure 4. Means bar graph of COTR’s ELA FSA scores compared with EWES’s ELA FSA scores.

Conclusion for Comparison #2

The results from the one-way ANOVA F-test comparative analysis showed the reading proficiency of third-grade students at both schools (COTR and EWES) improved after taking the Reading Interim Form 1. However, the schools’ improvements were different even though the results from the comparative analysis revealed both schools improved. The means of the data sets used in Comparison #2 were found to be different as COTR’s third-grade students’ reading
proficiency overall scores were statistically lower than EWES’s third-grade students’ reading proficiency overall scores.

COTR’s third-grade students received the treatment of ERT and EWES’s third-grade students received no treatment of ERT; yet, EWES’s third-grade students performed better. This type of statistical evidence could have called into question the overall effectiveness of the ERT, or if ERT would be even needed or required. ERT was a state and local district-funded reading supplemental program. Perhaps, third-grade students at COTR would have been better served by allocated funds to other education areas of learning and growth. Further, the reallocation of funds could have indirectly helped EWES’s third-grade students achieve even more than they did.

**COTR’s Reading Interim Form 1 Compared With COTR’s ELA FSA Assessment**

The Reading Interim Form 1 was a formative assessment that was usually administered a couple of months after the start of the school year. The ELA FSA was a summative assessment given at the end/conclusion of the school year. The comparative analysis revealed the reading proficiency growth of COTR’s third-grade students during the 2017–2018 school year. Table 6 is Comparison #3: One-way ANOVA F-test comparative analysis results of COTR’s Reading Interim Form 1 scores compared to COTR’s ELA FSA scores.
Comparison #3 Results

A one-way ANOVA F-test comparative analysis was used to compare the scores of COTR’s third-grade students’ performance on the Reading Interim Form 1 and ELA FSA. Through a pretest/posttest lens, Comparison #3 ascertained COTR’s third-grade students’ reading proficiency growth during the 2017–2018 school year. Further, this comparison showed to what extent COTR’s third-grade students’ reading proficiency improved. As such, the results from Comparison #3 answered research question #1 as it pertained to third-grade students that received ERT intervention services. Also, this comparison answered research question #2 because COTR’s third-grade students’ reading proficiency growth, to an extent, was predicated upon third-grade teachers’ ability to teach ELA content material effectively.

The results indicated statistically significant difference between the means of the two data sets, $F (1, 344) = 4.83$, $p = .029$, $\eta^2 = 5.45$. The strength of the relationship between the means of both data sets, as assessed by $\eta^2$, was weak, as they were variance between the data sets. The variance indicated significant gains in reading proficiency from COTR’s Reading Interim Form 1 to COTR’s ELA FSA. Table 6 illustrates COTR’s and EWES’s mean score, standard deviation, and a total number of sample participants. Also, Figure 5 is a Means Bar Graph that visually
illustrates the reading proficiency advancement and growth of the COTR’s third-grade students.

Figure 5. Means bar graph of COTR’s reading interim form 1 Scores Compared with COTR’s ELA FSA Scores

Conclusions for Comparison #3

The results of the analysis of Comparison #3 revealed a clear increase in COTR’s third-grade students’ reading proficiency. The supplemental reading interventions services (ERT) appeared to have positively and effectively impacted COTR’s third-grade students’ growth, proficiency, and maturation in reading.

Additionally, further analysis revealed that COTR’s third-grade teachers might had played a role in the third-grade students’ advancements and improvements in reading proficiency. The instructional and learning mediations, remediations, facilitations, and strategies that were implemented by COTR’s third-grade teachers, may have positively influenced the reading growth, progress, and confidence of the third-grade students. COTR’s third-grade
teachers had implemented reading interventions that impacted third-grade students’ reading proficiency.

**EWES’s Reading Interim Form 1 Compared With EWES’s ELA FSA Assessment**

The Reading Interim Form 1 was a formative assessment that was given a couple of months after the start of the school year. The ELA FSA was a summative assessment given at the end/conclusion of the school year. The comparison revealed how much EWES’s third-grade students’ reading proficiency improved over the 2017–2018 school year. Table 7 is Comparison #4: One-way ANOVA F-test Analysis’ Result of EWES’s Reading Interim Form 1 scores compared with EWES’s ELA FSA scores.

Table 7

*Comparison #4: One-way ANOVA F-test Summary Output for EWES’s Reading Interim Form 1 scores Compared to EWES’s ELA FSA scores*

<table>
<thead>
<tr>
<th>Source</th>
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<th>SS</th>
<th>MS</th>
<th>F</th>
<th>p</th>
</tr>
</thead>
<tbody>
<tr>
<td>Between Groups</td>
<td>1</td>
<td>4.498</td>
<td>4.498</td>
<td>2.969</td>
<td>.086</td>
</tr>
<tr>
<td>Within Groups</td>
<td>321</td>
<td>486.214</td>
<td>1.515</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>322</td>
<td>490.712</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Comparison #4 Results**

A one-way ANOVA F-test comparative analysis compared the scores of EWES’s third-grade students’ performance on the Reading Interim Form 1 and ELA FSA. Through a pretest/posttest lens, Comparison #4 ascertained EWES’s third-grade students’ reading proficiency growth during the 2017–2018 school year. Further, this comparison showed to what extent EWES’s third-grade students’ reading proficiency improved. Therefore, the results from Comparison #4 answered research question #1 as it pertained to third-grade students that
received no ERT intervention services. Also, just as Comparison #3, Comparison #4 answered research question #2 because EWES’s third-grade students’ reading proficiency growth, to an extent, was dependent upon third-grade teachers’ ability to instruct and facilitate ELA content material effectively.

The results indicated statistically no significant difference between the means of the two data sets, $F (1, 321) = 2.97, p = .086, \eta^2 = 4.50$. The strength of the relationship between the means of both data sets, as assessed by $\eta^2$, was strong, and there was no variance in the data sets. The indication of no variance showed that both data sets might be, to some extent, similar. The means of both data sets were not statistically different. Table 7 illustrates COTR’s and EWES’s mean score, standard deviation, and a total number of sample participants. Also, Figure 6 is a Means Bar Graph that visually illustrates the reading proficiency advancements and growth of the EWES’s third-grade students on the 2017–2018 school year.
Figure 6. Means bar graph of COTR’s reading interim form 1 scores compared with COTR’s ELA FSA scores.

Conclusions for Comparison #4

The results from the analysis of Comparison #4 revealed that the reading proficiency data sets produced by EWES’s third-grade students were not statistically different. First, the analysis from the Reading Interim Form 1 data sets (COTR and EWES) indicated, from the start of the school year, EWES third-grade students performed better in reading aptitude and proficiency than did COTR’s third-grade students. Although the one-way ANOVA F-test comparative analysis indicated EWES’s third-grade students’ end-of-year reading proficiency was not statistically different from their start-of-year reading scores, the analysis still indicated an increase in EWES’s third-grade students’ reading growth and proficiency.
Secondly, the results from the analysis indicated that EWES’s third-grade teachers might have impacted their third-grade students reading proficiency as well. Although EWES’s third-grade teachers did not implement ERT supplemental reading intervention/services, they appeared to have facilitated instruction that continued to enhance their third-grade reading aptitudes and dexterities. Further, Table 9 illustrated the increase in reading proficiency, and although the overall increase was not as much as COTR’s increase reading proficiency, EWES still performed higher in all aspects of reading.

Summary

The research project’s results illustrated that COTR’s and EWES’s third-grade students’ reading improved during the 2017–2018 school year. As per the comparative analysis’ results, COTR’s third-grade students’ reading proficiency growth during the 2017–2018 school year was significant. This finding revealed to what extent third-grade students that received ERT intervention services improved (research question #1). Further, the statistically significant reading proficiency growth of COTR’s third-grade students may have also revealed to what extent did third-grade teachers effectively utilize ERT to meet the needs of their students best (research question #2).

Although, the comparative analysis indicated no significant difference between EWES’s third-grade students’ Reading Interim Form 1 and EWES’s ELA FSA scores (pretest/posttest), its third-grade students still showed reading proficiency growth during the 2017–2018 school year. As such, this finding also revealed to what extent third-grade students that received no ERT intervention services improved. In the case of EWES’s third-grade students’ reading proficiency growth during the 2017–2018 school year, the null hypothesis was rejected. This may have brought the need for ERT intervention services into focus as it pertained to research
question #1. First, ERT intervention services may have helped EWES’s third-grade students’ reading proficiency to statistically improve significantly during the 2017–2018 school year.

Chapter 5 will deliberate on the discussion and implications of the comparative analysis’ results. First, a review of the summary of the results will be introduced to set the focus/direction of the chapter. Then, a discussion of the results will ensue, followed by a discussion of the results relative to the literature. Next, limitations will be disclosed and elaborated upon and followed by the implications of the results for theory, practice, and policy. Finally, the researcher will make recommendations for future research and share final thoughts on the research project.
Chapter 5: Discussion and Conclusion

Introduction

The chapter documents the research project’s results and the extent to which the research project’s results answered the research questions. The research project utilized four archival data sets; the data sets were used to examine the effectiveness of a supplemental reading program—Extended Reading Time (ERT). The data sets derived from Cleft of the Rock Elementary School’s (COTR) and East Wind Elementary School’s (EWES) Reading Interim Form 1 and English/Language Florida Standards Assessment (ELA FSA) scores. The results from the comparative analysis of the data sets showed the effectiveness of ERT, and if it helped to improve the reading proficiency of Title I third-grade students with diverse reading needs. Also, the results from the comparative analysis showed the necessity of ERT. For example, did Title I third-grade students with diverse reading needs require ERT intervention services as a means of improving reading proficiency?

The discussion and conclusion chapter of the dissertation will seek to justify and apply the research project’s findings and results. This chapter will commence with a restatement of Chapter 4’s summaries of the research project’s results, followed by an in-depth discussion of the research project’s results and a review, with answers, of the research project’s questions. Next, there follows a discussion of the literature and the research project’s results. There follows a deliberation on the limitations of the research project’s findings, along with the implications of the results for practice, policy, and theory. Finally, the researcher’s recommendations for future research as it pertains to and aligns with the educational needs of contemporary Title I third-grade students with diverse reading needs.
Summary of the Research Project’s Results

COTR’s Reading Interim Form 1 Compared With EWES’s Reading Interim Form 1

A one-way ANOVA was used to compare the means of COTR’s and EWES’s third-grade students’ scores on the Reading Interim Form 1. The results indicated a statistically significant difference between the means of the two data sets (COTR’s and EWES’s third-grade Reading Interim Form 1 scores), F (1, 329) = 10.21, p = .002, η² = 12.75. The strength of the relationship between the means of both data sets, as assessed by η², was quite weak, with reading proficiency gains of both schools’ accounting for variance in scores. Finally, a comparison of the means was conducted to find out if both schools’ third-grade students’ reading proficiency were similar at the beginning of the 2017–2018 school year.

COTR’s ELA FSA Compared With EWES’s ELA FSA

A one-way ANOVA was used to compare the means of COTR’s and EWES’s third-grade students’ scores on the ELA FSA assessment. The results indicated a statistically significant difference between the means of the two data sets, F (1, 336) = 8.79, p = .003, η² = 12.19. The strength of the relationship between the means of both data sets, as assessed by η², was quite weak, with reading proficiency gains of both schools accounting for the variance in scores. Finally, this comparison of means was conducted to show both school’s third-grade students’ end of the school year (2017–2018) growth in reading proficiency and if the growth margins were the same.

COTR’s Reading Interim Form 1 Compared With COTR’s ELA FSA Assessment

A one-way ANOVA was used to compare the scores of COTR’s third-grade students’ performance on the Reading Interim Form 1 and ELA FSA assessment. The results indicated a statistically significant difference between the means of the two data sets, F (1, 336) = 8.79, p =
.003, \( \eta^2 = 12.19 \). The strength of the relationship between the means of both data sets, as assessed by \( \eta^2 \), was weak, as there was variance between the data sets. The variance indicated significant gains in reading proficiency from COTR’s Reading Interim Form 1 to COTR’s ELA FSA assessment. This comparison of means was conducted to find out how much COTR’s third-grade students’ reading had improved from the beginning to the end of the 2017–2018 school year.

**EWES’s Reading Interim Form 1 Compared With EWES’s ELA FSA**

A one-way ANOVA comparative analysis was used to compare the scores of EWES’s third-grade students’ performance on the Reading Interim Form 1 and ELA FSA assessment. The results indicated no statistically significant difference between the means of the two data sets, \( F (1, 321) = 2.97, p = .086, \eta^2 = 4.50 \). The strength of the relationship between the means of both data sets, as assessed by \( \eta^2 \), was strong, and there was no variance in the data sets. The indication of no variance showed that both data sets might be, to some extent, similar. The means of both data sets were not different. This comparison of means was conducted to find out how much EWES’s third-grade students’ reading had improved from the beginning to the end of the 2017–2018 school year.

**Discussion of the Results**

The results of the comparative analyses conducted on the data sets revealed reading improvements in the reading proficiency of third-grade students who attended COTR and EWES during the 2017–2018 school year. These findings yielded and suggested many circumstances and situations for discussions and deliberations. Discussions and deliberations aimed at justifying whether ERT, a supplemental reading program, met the reading needs of third-grade students, or if it is needed at all (But et al., 2017; Simmons, Kame’enui, Beck, Brewer, & Fine,
ERT is a Florida state and local district funded a supplemental reading program for Title I schools that had academically struggled in various aspects of reading proficiency (FDOE, 2017b). The research project’s results appeared to justify ERT’s likely success as a supplemental reading program and its future use in mandated Desert County Title I schools.

The Comparative Analysis’ Findings Suggest ERT Might be a Success

The comparative analysis of the research project’s archival data, in general, yielded results that showed improvement in reading proficiency. For example, the results from the comparative analyses illustrated improvements in COTR’s third-grade students’ reading scores. COTR’s third-grade students’ Reading Interim Form 1 mean score was 1.68, and their ELA FSA mean score was 1.93. COTR’s third-grade students reading scores increased by .25 of a point from the beginning to the end of the 2017–2018 school year, through a comparison of their Reading Interim Form 1 (administered at the beginning of the school year) and ELA FSA scores (administered at the end of the school year).

In addition, COTR’s third-grade students received supplemental reading interventions/services (ERT) throughout the 2017–2018 school year. COTR’s third-grade teachers were at liberty to implement ERT in unique and impactful ways that would best meet the needs of their students. During the 2017–2018 school year, all COTR’s third-grade teachers implemented a word study regimen that focused on fluency practice, words’ commonalities, manipulation of word phoneme, and word meaning. According to the increase in the COTR’s third-grade students’ reading proficiency, the reading instructional techniques and strategies that were implemented by COTR’s third-grade teachers appeared to have impacted COTR’s third-grade students’ abilities in reading and comprehending text. Further, the increase in the COTR’s
third-grade students’ reading proficiency indicated ERT might be a necessary component for the reading advancement and growth of Title I students with diverse reading needs.

Finally, COTR’s third-grade teachers implemented ERT reading supplemental services/interventions. In terms of teaching experience and pedagogical wherewithal, the data gathered on COTR’s third-grade teachers illustrated a reasonably large range existed amongst the teachers. For example, a couple of COTR’s third-grade teachers taught ELA for many years, while more than half of COTR’s third-grade teachers had less of the five years of experience teaching on any level. These COTR’s third-grade teachers’ lack of overall teaching experience, teaching in Title I schools, interacting with Title I students, and lack of common core content knowledge/materials experience, may have negatively impacted the reading advancements and growth of the third-grade student under their tutelage (Riot, 2015). Although the comparative analysis’ results showed an increase in COTR’s third-grade students’ reading proficiency, could COTR’s third-grade students’ reading proficiency had grown and advanced even more, if COTR’s third-grade teachers, as a team, possessed more overall teaching experience? Table 8 illustrates the same information in Table 2 (Chapter 3), which are the professional characteristics of the third-grade teachers at COTR during the 2017–2018 school year.
Table 8

*Professional Characteristics of Third-Grade Teachers at COTR*

<table>
<thead>
<tr>
<th>Teachers</th>
<th>Years of Service as of the beginning of 2017</th>
<th>Years of Service at COTR</th>
<th>2016-17 End of School Evaluation Status</th>
<th>ERT utilized for</th>
</tr>
</thead>
<tbody>
<tr>
<td>Teacher 1</td>
<td>3</td>
<td>3</td>
<td>H.E. (2)</td>
<td>Word Study</td>
</tr>
<tr>
<td>Teacher 2</td>
<td>4</td>
<td>2</td>
<td>E. (1)</td>
<td>Word Study</td>
</tr>
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<td>Teacher 3</td>
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<td>8</td>
<td>H.E. (2)</td>
<td>Word Study</td>
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<tr>
<td>Teacher 4</td>
<td>17</td>
<td>4</td>
<td>H.E. (1)</td>
<td>Word Study</td>
</tr>
<tr>
<td>Teacher 5</td>
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<td>0</td>
<td>N.A. (0)</td>
<td>Word Study</td>
</tr>
<tr>
<td>Teacher 6</td>
<td>3</td>
<td>1</td>
<td>E. (1)</td>
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<td>Word Study</td>
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<tr>
<td>Teacher 9</td>
<td>1</td>
<td>0</td>
<td>N.E. (-1)</td>
<td>Word Study</td>
</tr>
</tbody>
</table>

Averages: 5.9, 2.8, E (1)

**What About EWES? EWES did not Receive any ERT Treatment**

Similarly, the comparative analysis’ results showed improvement EWES’s third-grade students’ reading proficiency scores from the beginning to the end of the 2017–2018 school year, for example, when EWES’s third-grade students achieved a mean score of 2.07 on the Reading Interim Form 1 and a mean score of 2.31 on the ELA FSA assessment. EWES’s third-grade students increased by approximately .23 of a point from the beginning (administration of the Reading Interim Form 1) to the end of the 2017–2018 school year (administration of the ELA FSA).
Of note, EWES is a Title I school but was not required to receive mandated ERT intervention services. In recent years, EWES had been an academic excelling school, which excluded the school from mandated ERT implementation. The comparative analysis showed, at the beginning of the 2017–2018 school year, EWES’s third-grade students performed higher in reading proficiency than COTR’s third-grade students (via the Reading Interim Form 1 assessment scores). At the end of the 2017–2018 school year, EWES’s third-grade students performed higher in reading proficiency than COTR’s third-grade students (via the ELA FSA assessment).

Here are some possible explanations as to why EWES’s third-grade students performed well in reading proficiency without the implementation of ERT intervention/services. First, there could be extraneous variables that could have impacted the comparative analysis of the research project’s archival data, such as, the demographics of the sample population. For instance, while Hispanic-American students dominated both schools’ sample population (Hispanic-American students at COTR and EWES made up approximately 48% and 65%, respectively, of each school’s entire student population), at COTR, African-American students were second in terms of demographics, while at EWES, Caucasian-American students were second in terms of demographics. African-American students made up a small percentage of the student population at EWES (8%), while African-American students made up a quarter of the student population at COTR (26%) (COTR, 2017; EWES, 2017). Figure 7 illustrates the extraneous differences in COTR’s and EWES’s students’ demographic that may have impacted the research project’s results.
Another extraneous variable that could have impacted the comparative analysis of the research project’s archival data is atypical homelife of Title I students that attended EWES during the 2017–2018 school year. Atypical, regarding parents showing children that attend EWES their connection with the school (involvement in the PTA meetings, parents’ conferences, and other social events). Deke, Dragoset, Bogen, Gill, and Sekino (2012) supported this concept in their article about the characteristics of Title I students and the positives when parents communicate with their children’s schools. In addition, EWES’s third-grade students’ parents may be involved in their children’s educational status and progress at home. For example, EWES’s third-grade students’ parents overseeing in-home completion and review of homework. Fink (2012) contended that when parents are supervising the academic growth of their students during off-school times and interval, students tended to show marked improvements. Additionally, research has shown that these kinds of extraneous variables, while not tallied for this research project, could positively impact students’ academic performances, overall feelings about school, and ongoing formal educational success (Buyuktaskapu, 2012).
Finally, the EWES’s third-grade students’ scores on the Reading Interim Form 1 and ELA FSA assessment suggested EWES’s third-grade teachers implemented satisfactory instructional facilitation and remediation of common core ELA content materials. Denton (2012) wrote of the benefits and effectiveness of evidence-based reading instructions and interventions, and the importance of teachers’ pedagogical awareness of how to implement such facilitation and strategies. For example, EWES’s third-grade teachers may have possessed the pedagogical wherewithal to plan, implement, and mediate reading lessons and strategies that were more rigorous, imaginative, and insightful than COTR’s third-grade teachers. These professional and pedagogical advantages may have been because, on average, EWES’s third-grade teachers possessed longer teaching experiences and tenures than COTR’s third-grade teachers (8.9 years compared to 5.9 years). Hanover Research (2016) suggested that teaching experience and wherewithal created viable avenues of the success of all learning levels. For instance, the additional years of teaching and instructing Title I students, not only could have made EWES’s third-grade teachers more familiar with the common core content materials but also have existing knowledge of the particular needs of Title I third-grade students. In essence, teachers that possess holistic experience have the advantage of knowing how to bond, interact, and empathetically get the most of the Title I third-grade students (Gablinske, 2014; Hanover Research, 2016).

Is EWES’s Approach to Education Different Than COTR’s Approach?

EWES’s administration (leadership team, principal and assistant principal) has been in place for 5 years (EWES, 2017), as opposed to COTR’s administration (less than 2 years) (COTR, 2017). This kind of systemic stability from the top of an “organization” or “business” brand breeds functional stability throughout or down to the other parts/areas of the
“organization” or “business” (Brookfield, 2009). For example, if the administrative core of EWES has been stable and rooted then, whether it is a Title I school or not, the teaching core will tend to be stable as well. Hanover Research (2016) supported this premise by suggesting a fixed-core of teachers is one of the primary ingredients of students’ achievement. Also, this kind of top to bottom stability supports an environment where professional and pedagogical expectations are clear and perhaps even concise to everyone and everything involved in the exercise of serving students in the best possible ways. Further, this type of top, to the middle, to bottom stability within the “organization” or “business” will implicitly affect instruction, instructional techniques, and instructional wherewithal.

COTR began the 2017–2018 school year with two assistant principals. One of the assistant principals had been worked as an assistant principal with COTR for close to ten years. However, a few months into the 2017–2018 school year, a new assistant principal began working at COTR after the other assistant principal resigned following a two-year stint. The sudden and unanticipated absence of an assistant principal created gaps within and along the entire continuum and spectrum of learning, as it related to COTR and its functioning/functional core. For example, assistant principals have important duties about grade-level planning, instructional modeling/training and staff development that pertain to better student outcomes/results, and other responsibilities designed to illustrate to everyone that the system in place is fluid, empathetic, and working.

Further, at the time of the comparative analysis for this research project, COTR administrative core was, again, revamped entirely. After the 2017–2018 school year, the principal and long-standing assistant principal of COTR were sent to different schools to begin new assignments. Their reassignments occurred at the end of the 2017–2018 school year and did
Discussion of the Results Relative to the Literature

The results indicated that COTR’s and EWES’s third-grade students improved as readers. The implementation of the supplemental reading program/intervention (ERT) appeared to have produced positive change and growth in COTR’s third-grade students. Harrison (2017) evaluated a supplemental reading program’s positive impact on learners with diverse reading needs and found it aided in those students’ reading performances and proficiency. For example, on the Reading Interim Form 1 assessment (taken at the beginning of the 2017–2018 school year), COTR’s third-grade students achieved an average score of 1.68 out of 5. Then, on the ELA FSA assessment (taken at the end of the 2017–2018 school year), COTR’s third-grade students earned an average score of nearly 2 out of 5. The gathered literature for this research study supported the implementation of supplemental reading programs as support to help young readers experiencing various reading difficulties (Al Otaiba et al., 2014). In the case of COTR’s third-grade students, the comparative analysis suggested that ERT impacted their reading growth. According to the comparative analysis’ results, the extra time for reading, remedial reading reteaching, and reading instructions allowed through ERT appeared to have played a significant role in COTR’s third-grade students’ reading growth.

Also, the results indicated that EWES’s third-grade students improved as readers during the 2017–2018 school year. This achievement occurred without the implementation of ERT intervention/services. For example, on Reading Form 1 (administered at the beginning of the
2017–2018 school year), EWES’s third-grade students attained an average score of 2.07 out of 5. After that, on the ELA FSA assessment (administered at the end of the 2017–2018 school year), EWES’s third-grade students achieved an average score of 2.31 out of 5. FDOE (2018) reported, as cited by Postal (2018) that 57% of third-grade students scored a 3 or better on the ELA FSA, and 20% scored at level 1. A score of 1 is failing, 2 is below-level but acceptable for promotion to the fourth-grade, 3 is on-level, 4 is above-satisfactory, and 5 is above level. As such, EWES’s average score of 2.31 is below the statewide average of the third-grade students, which is approximately 2.75 (FDOE, 2018).

The cause of EWES’s third-grade students’ improvement as readers could be due to a couple of factors/variables. First, remedial reteaching of content/subject materials is a natural part of the effective pedagogical practice (Hanover Research, 2016). This type of reteaching instruction was implemented to refresh memory, build on reading/language fundamentals, and enhance understanding of texts (Simmons et al., 2010). Through EWES’s third-grade teachers’ instructional utilization of these types of reading performance remediations and reteaching, EWES’s third-grade students implicitly, yet “unofficially,” received the same kind of reading assistance offered through ERT intervention/services.

Socioeconomic Status’ Impact on Literacy

In-home education between the ages of 0 and 4 is not usually a priority for a low-income family, as it is usual for these types of families to focus on providing their children with food, clothing, and shelter as reading materials are viewed as more of an unnecessary expense (Perparim, 2014; Payne, 2013). Survival, in terms of food, shelter, and neighborhood safety. All of these situations/circumstances create holistic instability in low-income families’ functioning abilities.
With that in mind, the comparative analysis’ results supported that socioeconomic status weighed on COTR’s third-grade students’ ability to improve as readers. According to the results of the comparative analysis, COTR’s third-grade students improved as readers during the 2017–2018 school year. The comparative analysis revealed that COTR’s third-grade students still performed below-level as readers (even though COTR’s third-grade students improved as readers during the 2017–2018). This finding answers Research Question 1 as ERT appeared to have helped improve COTR’s third-grade students’ reading proficiency.

As for EWES, the results from the comparative analysis also supported the premise that socioeconomic status will impact reading performance. The comparative analysis’ results indicated that EWES’s third-grade students’ reading improved during the 2017–2018 school year. EWES’s third-grade students averaged 2.07 out of 5 on the Reading Interim Form 1 and improved to an average of 2.31 out of 5 on the ELA FSA. However, the comparative analysis indicated EWES’s third-grade students’ improvement was still in the below-level range (a three (3) is considered average/satisfactory). This finding answers Research Question 2 as EWES’s third-grade students’ reading proficiency appeared to have improved although they attended a non-ERT Title I school.

**Parents’ Impact on Literacy**

The literature reported and implied that parents’ play a significant role in the reading development of their children (Winkler, Fortner, & Baugh-Harris, 2013). Title I students are impacted by their parents’ educational statuses and histories (Taylor et al., 2016). For example, research has shown that parents who completed high school qualifications or college graduates, tend to be more involved in the academic progress of their child(ren) (Deke et al., 2012). These
kinds of parents’ involvement in their children’s education, intentionally and positively impacted young children’s educational progress (Buyuktaskapu, 2012).

The comparative analysis of data indicated EWES’s and COTR’s third-grade students improved as readers during the 2017–2018 school year. During the 2017–2018 school year, I was a third-grade teacher at COTR, when COTR’s administrators reported the school’s Parents/Teacher Association was re-chartered (reactivated) as parents were more involved than in previous years. Similarly, administrators reported during the school year (2017–2018), more parents attended parents’ conference days/ Nights than in recent years. Also, COTR’s social events (performances and fund-raisers) usually were regularly supported and attended by parents. This “insider” information was helpful, as it illustrated how parents of COTR’s students were involved in their children’s academic life (holistic progress and growth). As per the results from the comparative analysis, it inferred that COTR’s parents’ involvement in their children education and school activities had positively impacted the reading performance and growth of third-grade students. Niklas and Schneider (2014) and Petchprasert (2014) found that parents can impact the academic success of their children. Further, as EWES’s third-grade students achieved higher than COTR’s third-grade students in reading growth, it can be implied that EWES’s third-grade students’ parents were involved in their children’s academic life as well (holistic educational progress and growth). This finding suggested the involvement of EWES’s and COTR’s third-grade students’ parents in the academic progress of their children during the 2017–2018 school year.

**Teachers’ Impact on Literacy Development**

The literature has found that teachers have an undeniable and indelible effect on the students’ reading development. Children view teachers as special and unique individuals they
admire and emulate. In this role, a role that encompasses many different kinds of responsibilities, teachers play a significant role in literacy (reading and writing) development of their students (Gablinske, 2014). Further, teachers of Title I students must have the experience, professional and personal wherewithal to instruct, remediate, and manage (Hanover Research, 2016).

According to the results of the comparative analysis of the archival data, COTR’s and EWES’s third-grade teachers appeared to have positively impacted the reading progress and growth of their third-grade students. For example, COTR’s third-grade teachers implemented reading mediations, remediations, strategies, and techniques through ERT intervention/services. The reading mediations, remediations, strategies, and techniques helped third-grade students progress and grow as readers. Further, for actual learning to take place, third-grade teachers at COTR had to possess personal skills, rapport building, classroom management, and persistence. Soares dos Reis da Luz (2015) suggested for teachers to effective impact the academic success of their students; they should possess well-rounded professional and pedagogical skills.

The comparative analysis’ results inferred that EWES’s third-grade teachers implemented reading medication, remediations, strategies, and techniques as a natural part of their everyday teaching approach and regimen. Also, EWES’s third-grade teacher’s instructional approach and regimen were intentional and natural parts their facilitatory tutelage because ERT was not mandated or implemented. Just like COTR, the comparative analysis’ results suggested EWES’s third-grade teachers must have possessed personal and professional skills that encouraged and enabled holistic participation with their third-grade students.
Digital Needs and Devices of the Time

Digital devices were present during the 2017–2018 school year, as they aided the COTR’s and EWES’s third-grade students’ reading progress and growth. For example, Desert County School District implemented the use of the i-Ready reading program in all elementary schools (personal communication, August 7, 2018). i-Ready is a web-based program accessed through internet protocols. The i-Ready Reading program’s platform is an adaptive-based diagnostic that individualizes reading growth and performance through a level-based lesson, which was interactive, age-appropriate, and fun (Gettingsmart.com, 2014). COTR’s third-grade teachers were permitted to implement i-Ready web-based reading and other kinds of web-based reading programs as ERT intervention/services. When students are using digital devices such as computers, laptop, and hand-held devices, their digital needs of time are being met, as they live and must exist in a digitally evolving world (Gibson, et al., 2011; Vasquez et al., 2011). For COTR’s third-grade students, the i-Ready Reading program has met two needs. First, it helped improve the reading proficiency of third-grade students. Second, it provided Title I students with access to digital devices and programs, in turn, giving them opportunities to practice on digital devices they will most probably need in the future (personal, education, and workforce).

Limitations

The Title I Effects

Title I students, inherently, possess characteristics that created limitations within the data’s comparative analysis results. Weinstein et al. (2009) cited that some of the characteristics impacted the academic growth of Title I students, and these types of characteristics could have involuntarily and negatively impacted COTR’s and EWES’s third-grade students’ performance on both assessments (Reading Interim Form 1 and ELA FSA) used to measure reading
proficiency and improvements. For example, the parents of Title I students usually possess limited educational knowledge and backgrounds (Deke et al., 2012). As such, these types of parents would be far less likely to be involved in their children’s education (Payne, 2013). Further, Lickona (1991) contended that when children see their parents and the school working together, they are more apt to achieve and care about their formal educational careers. If parents are not involved in their children’s educational growth and progress at home, then they are even less likely to connect with their children’s school. For example, aptness to join the Parents/Teachers Association at their children’s school or even attending semesterly parents’ conferences shows children their parents and school are working together.

Further, the parents of Title I students’ educational backgrounds impact their ability to read to their children from the ages of 0 to 4 and to even be aware of the importance of homeschooling before their children’s formal education years/training (Katzir et al., 2013). These kinds/types of circumstances and situations involving the parents of the Title I students may have skewed the data and the data’s results, further causing limitations within the data and the data’s results.

Another Title I characteristic that may have created limitations within the data sets and the data sets’ results is the circumstance of poverty. Title I students usually live in homes experiencing generational or situational poverty (Payne, 2013). From a home educational point of view, little focus is on purchasing utensils of learning. Such utensils as pencils, paper, crayon, coloring books, children’s storybooks and other types of home learning aides are deemed less of a priority (Katzir et al., 2013). Usually, the focus of families living in poverty is day-to-day survival; as such, food and rent become the natural focus as essentials of day-to-day survival.
Further, research has found that Title I students experienced little to no home academic learning between the ages of 0 and 4 (Deke et al., 2012). This characteristic is prominent and has long-lasting implications (Weinstein et al., 2009). Living in a home with limited to no academic learning will negatively affect Title I students’ formal educational readiness (Beegle, 2015b; Payne, 2013). These types of students, always feeling like they are playing “catch up,” will tend to function as below-level readers for a significant portion of their formal educational careers (Buyuktaskapu, 2012).

Similarly, Title I students may experience transient homelife conditions due to socio-economic instability (Payne, 2013). For example, some Title I students may live with different family members throughout a given school year. Thus, transient and unstable living conditions affect the academic progress and growth of Title I students (Huettl, 2016). Notwithstanding, Title I students tend to live with immediate family members but routinely move to different locations, such as shelters, motels, and extended family residences. These types of Title I students’ transient conditions create situations where withdrawals from more than one school during the school year is typical and expected (Hegedus, 2018). When Title I students are withdrawn from school(s) during a school year, it creates gaps in learning, comprehension of the content materials, and curtails holistic progress (Weinstein et al., 2009).

Finally, Title I schools experience staffing issues and problems. Many times, Title I schools may start a school year fully manned. However, a month or so into the school year, teachers at Title I schools have been known to feel overwhelmed with the environment, conditions, and responsibilities that embody Title I schools and its students (personal communication, December 20, 2018). As a result, teachers have been known to resign their
positions suddenly. These types of sudden and inexplicable resignations holistically create and leave voids in the school’s continuity and functionality.

Further, impacting Title I students academically, as substitute teachers usually do not possess the class management skills, educational background, or pedagogical training to meet the needs of the Title I students they are overseeing (Zubrycki, 2012). Title I schools usually have difficulties filling instructional gaps. The substitute teachers pulled into such situations also begin to feel overwhelmed with the environment, conditions, and responsibilities that embody Title I schools and its students (Harris, 2017).

**COTR’s and EWES’s Recent Academic Histories**

Another inherent limitation of the data is the recent academic histories of COTR and EWES. Although COTR and EWES are Title I schools and the sample populations used for this research project is reasonable the same (concerning demographics), there are noteworthy differences within the sample populations, which have created limitations. One of the differences that have created a limitation is the schools’ (COTR and EWES) is their recent state end-of course assessments, in which COTR academically performed from failing to below-level in all academic areas.

EWES contrasted with COTR’s academic performance in recent years with academically average performances. EWES’s performance on the Reading Interim Form 1 (taken at the beginning of the 2017–2018 school year) was already higher than COTR’s performance on the ELA FSA assessment (taken at the end of the 2017–2018 school year). This performance gap between COTR and EWES may have skewed the archival data and its applicability. For example, EWES’s reading proficiency gains (comparison of EWES’s third-grade students’ Reading Interim Form 1 and ELA FSA scores) were found to be minimal and not statistically
significant. However, EWES holistically performed well enough to receive a Florida state educational grade of “B” after the 2017–2018 (FDOE, 2018).

**Natural Growth and Academic Growth of Children**

In recent years, edu-brain research has made many discoveries about brain growth, how it learns, and continuously adapts to changes (Patoine, 2008). Neuro-brain studies have found that children’s brains, particularly their brains’ activity, are continually evolving and developing new neuropathways (Robinson, 2011). For example, through the constant formation of new neuropathways, children naturally obtain growth and knowledge just by living and interacting with their environment.

As such, the natural growth of young children should be ignored or downplayed (Jensen, 2013). Young children can naturally grow, learn and understand things they may not have understood a few weeks or a few months ago. At what level this occurred in the COTR’s and EWES’s third-grade is unknown and to some extent, a mystery because while human growth has been measured and can be holistically generalized, there is still a level of brain development and skills, which lacks full understanding and is individualized (Patoine, 2008; Robinson, 2011).

Further, the natural growth of young children created a limitation on the comparative analysis’ results. According to the comparative analysis’ results, COTR’s and EWES’s third-grade improved as readers during the 2017–2018 school year. However, it is difficult to show to what extent or how natural growth of young children impacted their reading improvements (Patoine, 2008). It is prudent to be mindful of young children’s different and varying rates of brain growth, as they relate to the acquisition of knowledge (Jensen, 2013).
Comparative Analysis’ Results may Only Apply to Other Title I Schools

The comparative analysis’ results derived from data sets from two Title I schools—COTR and EWES. The Title I, insignia of both schools weighed heavily on the data sets and the data sets’ results, as in many ways and aspects, the data sets were unique to only Title I schools. For instance, COTR’s third-grade students’ mean score on the Reading Interim Form 1 of 1.68 out of 5 could be considered exceptionally low in achievement. Nonetheless, a mean score of 1.68 out of 5 could be an expected mean score for Title I third-grade students because it is indicative of general Title I achievement.

EWES’s third-grade students’ Reading Interim Form 1 mean score was 2.07 out of 5. A mean score of 2.07 is on the lower end of reading achievement. However, a 2.07 mean score on the Reading Interim Form 1 is above average for Title I third-grade students. Therefore, EWES’s and COTR’s third-grade students generated their Reading Interim Form 1 and ELA FSA scores under unique circumstances and situations that engendered the characteristics of Title I students. As such, the comparative analysis’ results may be only applicable to Title I schools and not generalizable to non-Title I schools (Deke et al., 2012; Weinstein et al., 2009).

Implications of the Results for Theory, Practice, and Policy

Improving a school’s reading performance is a gradual process and this is consistent with Maslow’s Hierarchy of needs and motivation (the conceptual framework of this research project). Maslow (1971) believed that motivations are inherit but are dependent upon needs, and meeting those needs. As such, sufficiently meeting the needs at every level geared towards change is necessary for the appropriate and lasting improvements of a school’s reading performance. The improvement embodies stages of processes, and the processes are relative to those who relay the actual services or direct care (Fullan, 2011). As such, well-trained or more
experienced service workers—or in this case, teachers—will tend to yield faster or more effective results. Further, some areas in need of improvement or improvements may not require as much intentional care as compared to more prominent areas in need of improvement or improvements (Schmuck, Bell, & Bell, 2012). For example, well-trained or more experienced third-grade teachers will not require as much administrative oversight as first-year or less-effective teachers. Similarly, third-grade students who are reading on-level will not require as much reading intervention services as third-grade students who are reading below-level.

**Maslow’s Hierarchy Theory**

Nonetheless, improvement in reading requires a theory (Maslow’s Hierarchy of needs and motivation); the theory then evolved into concepts (Marx, 2006). Improvement-concepts are the initial building blocks for the necessary change (Fullan, 2011). As it relates a school’s reading improvement, a couple of common concepts are increasing students’ enjoyment of reading by making reading fun, and recognizing all levels of reading achievements. Further, concepts are still intangible and must remain workable in terms of maneuverability and adjustability, to again, appropriately and effectively meet the needs of the clientele (Marx, 2006; Schmuck et al., 2012). In the case of this research project, the clientele were third-grade students with diverse and in some cases, overwhelming reading needs.

The final initiation for progress towards improvement is operationalizing the concepts into tangible and actual substances (Fullan, 2011). Improvements are made tangible through actions such as work, planning, instructional methods, data gathering, data reviews, necessary modifications perhaps to the entire improvement-plan, and allotted time to effect improvements on a school-wide scale (Wacker, 2008). Without appropriate time, the change towards improvements will often create more problems than it solves. New administrators brought in to
lead improvement, improve morale, to build a responsible core of workers, incorporate improvements, and lasting improvements, will need appropriate time to achieve such measures (Marx, 2006). Responsible improvements require time; as improvements and allowed time must be responsibly available in order to acquire the end goals (Schmuck et al., 2012), which are to effectively meet the needs of Desert County public schools’ students through these changes.

**Practice and Policy**

The instability within the realm of COTR’s administration, in recent years, has affected teacher retention. First, in the last five years, there have been four different principals in the lead position at COTR. The administrative instability, at the top of the chain, has systemically affected every functioning aspect of COTR’s core. For example, COTR begins the start of every school year with a student population between 900 and 1000 Title I students. With a different administrative team with differing expectations every couple of school years, and sometimes twice in a school year, naturally, expectations become vague and unclear to everyone affiliated with COTR. Such uncertainty can create an unstable working and learning environment for teachers and students (Wacker, 2008). Title I teachers and students in such situations may tend to feel unsupported as the network of support from administrative personnel appeared inconsistent and at times even wavered (Kent & Simpson, 2010).

Further, improvement-goals appear virtually unreachable in such situations as this type of disorder is a systemic malfunction (Fullan, 2011, Marx, 2006). COTR’s alleged systemic disorder could be one of the reasons why it has had difficulties, in recent years, maintaining and retaining effective and highly effective teachers on a long-term basis. Also, this could be why, in recent years, COTR has maintained a below-level or failing Florida state educational grade.
Also, this type of systemic problem will affect Title I students’ ability to be academically successful (Deke et al., 2012). Students who usually attend Title 1 schools are dealing with external and internal circumstances and situations that are not necessarily academic (Payne, 2013). Combined with the instability of administrative personnel and the instability of retaining effective and highly effective teachers, in the researcher’s opinion, it should not be a surprise that students who attend COTR are underachieving. For example, if students are exposed to new administrations and teachers every year, this will holistically affect rapport building, trust, feelings of comfort, and feelings of long-term goal setting (Soares dos Reis da Luz, 2015). COTR’s Title I students appeared to have been experiencing instability at home and instability on their education campus.

On a local level, the findings from this study may exacerbates the need supplemental reading programs and that these types of programs are benefiting Title I students with diverse reading needs. Supplemental reading programs are fillings the gaps created by the characteristics of Title I students. School divisions that are experiencing difficulty implementing inclusion may want to explore research regarding the effectiveness of professional development, in the areas of inclusion and the impact these training have on teacher preparedness. These findings could also promote school divisions to conduct longitudinal studies exploring the co-teaching relationship and the impact it has on students with disabilities. Districts may also want to conduct studies measuring the effectiveness of inclusion support groups with first year inclusion teachers.

On the state and national level, this study may prompt researchers to conduct a study in the qualitative tradition of ground theory in hopes to develop a theory of inclusion (Johnson & Christensen, 2008). This study may also encourage quantitative studies in which the researcher administers inclusion surveys to various parts of the country and compare and contrast
the data based upon geographical locations. Lastly, the findings from this study may promote additional research in regards to the thoughts, feelings and emotions of the daily lived experiences of students with disabilities in the inclusion setting.

**Recommendations for Future Research**

The researcher considered conducting a mix-methods approach to answering the research questions. In the researcher’s opinion, interesting facts to understanding reading deficiencies in children might have been discovered, if a mixed-methods aspect or point of view was added to the research project. Also, the holistic feelings, wants, and desires of administrators, teachers, third-grade students, parents, and other stakeholders might have been effectively explored through the qualitative aspects of a mixed-methods approach. Finally, the nuances and value of this type of mixed-methods data might have allowed for the generalization of the comparative analyses’ results to populations other than Title I students.

**Innate Characteristics of Title I Students**

As noted in earlier chapters, the characteristics of Title I students posed threats to the credibility, reliability, and applicability of the comparative analysis’s results. For example, the transient nature of Title I students indirectly impacted the comparative analysis’s findings, and as such, the comparative analysis’s results would not necessarily apply to other similar types of populations. Therefore, a follow-up research project geared to following the reading proficiency status of non-ERT and ERT Title I students that transferred to other schools during a school year may be able to ascertain the impact transient characteristics have on individual and grade-level reading performance. Also, finding out and then examining what kind of impact this characteristic may have played on this comparative analysis research project.
Non-ERT Title I Third-Grade Research

EWES’s principal and third-grade teachers chose not to participate in this research project. Their participation could have revealed insights into the who, what, when, where, why, and how, as it pertained to non-ERT Title I third-grade students receiving reading facilitation during the 2017–2018 school year. This evidence gap created limitations on the reliability and applicability of the comparative analysis’s results. For example, providing information on which types of non-ERT Title I third-grade students received remedial reading intervention services, who provided those services, and where it took place could have help understanding why EWES’s third-grade student was performing higher in reading than COTR’s ERT Title I third-grade students from the beginning of the 2017–2018 school year. Therefore, the researcher recommends research solely on third-grade students attending non-ERT Title I schools in Desert County, Florida. The study would more intensely examine the familial backgrounds of non-ERT Title I students, the faciliatory methodology and pedagogy of third-grade teachers working in non-ERT Title I schools, and other characteristics of non-ERT Title I schools in Desert County, Florida

Word Study

The results of the comparative research showed that COTR’s third-grade students’ reading proficiency improved during the 2017–2018 school year. Though unplanned, as a whole, COTR’s third-grade teachers implemented a word study instructional regimen during ERT time. Among others, COTR’s third-grade teachers’ word study instructional regimen focused on the commonality of words, decoding, and fluency. Follow up research on attempting to understand how Desert County School District’s non-ERT and ERT Title I third-grade students respond to different areas of word study facilitation (decoding, fluency, combining
letters to form sounds) could be relevant to understanding how to approach facilitating students with diverse reading needs. Further, discovering and then examining this information could provide administrators and teachers with applicable and focused approaches to improving reading proficiency of Title I third-grades students.

**Non-ERT and ERT Teachers**

Further research on teachers and their impact on non-ERT and ERT third-grade students is also necessary. As mentioned already, the lack of voluntary information from EWES’s administration and third-grade students, created limitations on the comparative analysis’s results. The researcher recommends further research on non-ERT and ERT third-grade teachers’ pedagogical effectiveness. For example, research geared towards examining and understanding relationships between Desert County School District’s effective and highly effective teachers’ status and the reading proficiency growth of their Title I third-grade students (both ERT and non-ERT students). This research could fill the gaps created by the lack of information provided by EWES’s administrative and instructional personnel.

**Title I Students’ Parents**

Although the results from the comparative analysis suggested the sample population’s parents may have positively impacted ERT and non-ERT Title I third-grade students’ reading improvement, it is unknown exactly how this “parental intervention” was implemented and carried out. For example, in terms of connection and participation in school events, were the parents of third-grade students attending COTR and EWES during the 2017–2018 school year atypical for parents of Title I students? If this is true, then what were the specific characteristics, behaviors, and traits of these parents? Further research specifically aimed at finding out and then examining the alleged characteristics, actions, and attributes of the parents of Title I third-grade
students who improved as proficient readers may provide additional and pertinent information on how to implement and support growth and change.

**Title I Students are Able to Achieve**

The ERT non-mandated status of EWES made it an “ad-hoc” control group. The control group(s) of a research experiment or study usually does not receive the treatment. The treatment of this research project was ERT. As the “ad-hoc” control group, EWES’s third-grade students’ scores on the Reading Interim Form 1 and ELA FSA, provided an area of discussion for logical and reasonable justifications of the academic potential of Title I third-grade students. For example, Title I students must overcome wide and varying ranges of familial and education obstacles to be academically progressive and successful, and this is attainable with the right professionals and services in place. Further, Title I third-grade students do not necessarily require a state and local district funded reading supplemental program for academic progression and success to be realized; and, this is what the “ad-hoc” control group for this research project (EWES’s third-grade students’ scores on the Reading Interim Form 1 and ELA FSA) provided to the Title I schools’ achievement/success discussion.

**Approach Towards Success**

According to the research project’s data and results, COTR appears to be lacking in essential areas of students’ academic and holistic development and growth. In the researcher’s opinion, the comparative analysis’ results suggest that COTR and EWES have different ways of implementing instruction to third-grade students. For example, EWES’s ability to facilitate the improvement of third-grade students’ reading proficiency at a higher level than COTR. Also, EWES has a better than average rate of teacher retention, which supports experience building, advanced knowledge of content/subject material, and pedagogical wherewithal. As of the
writing of this dissertation (Fall/Winter 2018-2019), EWES academic improvements during the 2017–2018 school year earned a Florida state educational grade of “B” after the 2017–2018 school year. EWES appeared able to maintain a steady course to earning a Florida state educational grade of “B” after the 2017–2018 school year. This is a satisfying accomplishment, and the implications for this research suggest the steps taken by EWES’s administrative leadership should or needs to be shared, copied, and published in a school district leadership manual.

Further, there should be professional sharing workshops between principals and assistant principals in Desert County. Upper management (school administrative personnel) training, meetings, and workshops focused on similar success formulas (the kind that is working at EWES), should be universally shared. This type of professional sharing could support the standard, natural, collective growth potential of all schools in Desert County. Finally, this kind of growth potential will intentionally provide equal and equity services to the primary targets of the services provided by Desert County School District—the students.

Sustaining Growth: Retention of Knowledge Gained Through Supplemental Interventions

The researcher recommends following up the third-grade students’ (now fourth-grade students) reading progress. Title I students experience regression for many different reasons and from multiple sources (Jenson, 2013). For example, Title I students may live in homes where English is not the primary language (Petchprasert, 2014). These types of Title I students do not have anyone at home to follow up on their academic progress (Perparim, 2014). Also, any elongated time off from school enables regression on various levels in academic growth and retention of new knowledge (Taylor et al., 2016). For academic progress, growth, and retention
of knowledge, Title I students require persistent exposure to academic materials for sufficient progress, growth, and retention (Scholastic Face & Afterschool Alliance, 2013).

Regarding third-grade students’ retention of reading proficiency gains during the 2017–2018 school year, perhaps the results from the fourth-grade Reading Interim Form 1 could be used to access retention of reading proficiency gains/knowledge. The utilization of the Reading Interim Form 1 as a follow up for monitoring/accessing retention of knowledge and regression from the previous academic school year is practical because it is usually administered a couple of months into a new school year. A comparison of third-grade students’ ELA FSA with their fourth-grade Reading Interim Form 1 could be used to reveal which students regressed during the summer months off from school. Hence, making fourth-grade teachers aware/knowledgeable of which students require/may need focused-facilitation and therapeutic interventions. Focus-facilitation and therapeutic interventions that support continuity of reading growth and positions students for continued success.

Conclusions

First, improving literacy in children is a global phenomenon and problem. United States’ children experience diverse literacy problems due to poverty and other life-event and circumstances. Also, the continuing migration of families to the United States has holistically exacerbated United States’ children’s literacy problem. For example, English Language Learners (ELL) and English for Speakers of Other Languages (ESOL) students’ intervention services are now staples in most school districts in the United States due to the steady migration of families to the United States. As a means of curtailing trauma and lack of confidence in ELL and ESOL students, these language intervention programs help them adjust to United States’ culture through appropriate and gradual acquisition of the English language. Further, other types
of district and school-based language intervention programs for ELL and ESOL students create and allow opportunities for personal and social growth.

Second, the focus of this research project was to ascertain the effectiveness of a supplemental reading program—ERT. Also, the focus of this research project was to ascertain if third-grade teacher effective implemented effective reading interventions during ERT, and finally, to find out if ERT is needed at all. The utilization of two assessments scores (one formative and one summative) was the means of examining the effectiveness of ERT. For example, whether ERT will increase the reading proficiency of Title I third-grade students with diverse reading needs. Also, did the reading and reading proficiency of Title I third-grade students improve without the utilization of ERT. Hence, are ERT intervention services a required school-wide supplemental reading program?

The comparative analysis conducted on COTR’s third-grade students’ assessment scores indicated an increase in reading proficiency and suggested ERT may have played a significant role. In contrast, the comparative analysis conducted on EWES’s third-grade students’ assessment scores (non-ERT mandated school) indicated an increase in reading proficiency and suggested ERT may not be necessarily required. This indication from the comparative analysis may be valid because EWES’s third-grade students’ assessment scores improved without the implementation of ERT intervention services. Nonetheless, although EWES’s third-grade students’ assessment scores showed improvement, the comparative analysis results indicated the improvement from the beginning to the end of the 2017–2018 school year was not statistically significant.

The conclusion of the research project is ERT intervention services helped to improve the reading and reading proficiency of third-grade students that attended COTR during the 2017–
2018 school year. The other conclusion of the research project is the reading and reading proficiency of third-grade students that attended EWES during the 2017–2018 school year improved without ERT intervention services. However, as per the comparative analysis’ result, it is reasonable to infer that if EWES’s third-grade students had received ERT intervention services during the 2017–2018, they might have improved more as readers. These overall findings indicated that ERT intervention services were successful and justly receive a recommendation for continued implementation in Desert County School District’s Title I elementary schools.
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Appendix D: Statement of Original Work

The Concordia University Doctorate of Education Program is a collaborative community of scholar-practitioners, who seek to transform society by pursuing ethically-informed, rigorously-researched, inquiry-based projects that benefit professional, institutional, and local educational contexts. Each member of the community affirms throughout their program of study, adherence to the principles and standards outlined in the Concordia University Academic Integrity Policy. This policy states the following:

**Statement of academic integrity.**

As a member of the Concordia University community, I will neither engage in fraudulent or unauthorized behaviors in the presentation and completion of my work, nor will I provide unauthorized assistance to others.

**Explanations:**

*What does “fraudulent” mean?*

“Fraudulent” work is any material submitted for evaluation that is falsely or improperly presented as one’s own. This includes, but is not limited to texts, graphics and other multi-media files appropriated from any source, including another individual, that are intentionally presented as all or part of a candidate’s final work without full and complete documentation.

*What is “unauthorized” assistance?*

“Unauthorized assistance” refers to any support candidates solicit in the completion of their work, that has not been either explicitly specified as appropriate by the instructor, or any assistance that is understood in the class context as inappropriate. This can include, but is not limited to:

- Use of unauthorized notes or another’s work during an online test
- Use of unauthorized notes or personal assistance in an online exam setting
- Inappropriate collaboration in preparation and/or completion of a project
- Unauthorized solicitation of professional resources for the completion of the work.
Statement of Original Work (Continued)

I attest that:

1. I have read, understood, and complied with all aspects of the Concordia University–Portland Academic Integrity Policy during the development and writing of this dissertation.

2. Where information and/or materials from outside sources has been used in the production of this dissertation, all information and/or materials from outside sources has been properly referenced and all permissions required for use of the information and/or materials have been obtained, in accordance with research standards outlined in the *Publication Manual of The American Psychological Association*

Digital Signature

Michael Dennis

Name (Typed)

July 10, 2019

Date
Appendix B: Concordia University–Portland’s IRB Clearance Letter

DATE: December 7, 2018

TO: Michael Dennis

FROM: Concordia University – Portland IRB (CU IRB)

PROJECT TITLE: [1343174-1] The Effects Extended Reading Time Has On Third-Grade Students with Diverse Reading Needs: A Comparative Analysis of Two Title I Elementary Schools

REFERENCE #: EDD-20181027-Allison-Dennis

SUBMISSION TYPE: New Project

ACTION: APPROVED

APPROVAL DATE: December 6, 2018

EXPIRATION DATE: December 6, 2019

REVIEW TYPE: Facilitated Review

Thank you for your submission of New Project materials for this project. The Concordia University – Portland IRB (CU IRB) has APPROVED your submission. All research must be conducted in accordance with this approved submission.

This submission has received Facilitated Review based on the applicable federal regulations and applicable exempt categories (see below). The CU IRB conducted an IRB review – and approved your project. At the same time, the CU IRB noted that the project could fit the criterion of Exempt Research because the study is a protocol utilizing Educational Test Scores in a way that is fitting for an educational exemption (see below). Moreover, the data will be provided to the investigator team in a manner that is de-identified (see below). Whether or not to grant this exemption is at the discretion of the local IRB(s). Therefore, if you are conducting research within another institution, you will have to present this research to that institution and have permission before you can begin your research.

The goal is focused on educational development. Publication should description the study as being initiated as educational research within a school environment. The results cannot identify the name of the school in any publication or report without expressed permission by the school.

You are responsible for contacting and following the procedures and policies of Concordia University and any other institution where you conduct research.

You requested a waiver of written documented informed consent. You qualify for this because 1) this is educational research fitting Federal Exemption, 2) this is a minimal risk study that does not have sensitive questions/study topic, and 3) the data you will receive will be de-identified. For these reasons, your request for a waiver is approved by CU IRB. Again, you are responsible for contacting and following the procedures and policies of the institution where you conduct research and obtain this de-identified data.
Appendix B: Concordia University–Portland’s IRB Clearance Letter (continued)

Please note that any revision to previously approved materials must be approved by this committee prior to initiation. The form needed to request a revision is called a Modification Request Form, which is available at www.cu-portland.edu/IRB/Forms.

All UNANTICIPATED PROBLEMS involving risks to subjects or others and serious and unexpected adverse events must be reported promptly to this office. All NON-COMPLIANCE issues or COMPLAINTS regarding this project must be reported promptly to this office. Please email the CU IRB Director directly at obranch@cu-portland.edu, if you have an unanticipated problem or other such urgent question or report. You must do this within 5 business days of such an unanticipated problem or report.

This project has been determined to be a Minimal Risk project. Based on the risks, this project requires continuing review by this committee on an annual basis. Please use the appropriate forms for this procedure. Your documentation for continuing review must be received with sufficient time for review and continued approval before the expiration date of December 5, 2019 or before the expiration date of the collaborating institution - whichever expiration date is earlier.

You must submit a close-out report at the expiration of your project or upon completion of your project. The Close-out Report Form is available at www.cu-portland.edu/IRB/Forms.

Please note that all research records must be retained for a minimum of three years after the completion of the project.

If you have any questions, please contact Dr. OraLee Branch at 503-493-6390 or irb@cu-portland.edu. Please include your project title and reference number in all correspondence with this committee.

Federal Regulations 45 CFR 46 Exemption Category #2: Educational tests or programs. The research involves typical educational tests (cognitive, diagnostic, aptitude, achievement, and attendance) which is available within a normal educational classroom setting, and where there will be no analysis comparing vulnerable subject population or legal liability. If the tests or program information is not publicly available, then the school involved must give permission to use the data. It is up to the local school if any report of the resulted identify the school in the research publication or oral presentation. This research poses no more than minimum risk to the participants. The research topic focus is not sensitive in nature and disclosure of their responses to questions/procedures would not impact the participants' self-image, social status, criminal/civil liability, or employment opportunities. All participants will adults and participation is voluntary. The research is not involving prisoners, deceptive practices, coercion, FDA matters, medical records, or embryonic cell lines.

US Federal Regulations 46 CFR Exemption Category #4; De-identified or Public Data, summarized by CU IRB. The research is limited to the collection or study of existing data that are publicly available or previously collected data or specimens where the subjects have not, cannot and will not be identified, directly or through identifiers linked to the subjects. "Previously collected" means existing before the research is proposed to the institutional review board to determine whether the research is exempt. Existing data means that the research cannot involve providing a list of names or other identifiers to another person and asking that other person (other researcher or organization) to supply data in a de-identified manner. Even if existing data, the data cannot involve prisoners, deceptive practices or coercion to release information, FDA matters, medical records, or embryonic cell lines. Whether or not to extend a letter of exemption is under the discretion of the local institution where activities take place due to the fact that other laws and regulations apply and due to the fact that the local institution(s) operate with their policies and procedures.

This letter has been electronically signed in accordance with all applicable regulations, and a copy is retained within Concordia University - Portland IRB (CU IRB)'s records. December 7, 2018
Appendix C: Conceptual Framework

Maslow’s Hierarchy of Needs (1954)

- **Physiological**: breathing, food, water, sex, sleep, homeostasis, excretion
- **Safety**: security of body, of employment, of resources, of morality, of the family, of health, of property
- **Love/Belonging**: friendship, family, sexual intimacy
- **Esteem**: self-esteem, confidence, achievement, respect of others, respect by others
- **Self-actualization**: morality, creativity, spontaneity, problem solving, lack of prejudice, acceptance of facts