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Effects of Summer School Attendance on the Assessed Reading Proficiency of Third Grade Students

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Walden University

College of Education and Human Sciences

This is to certify that the doctoral study by

Lydia Evers

has been found to be complete and satisfactory in all respects,
and that any and all revisions required by
the review committee have been made.

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Walden University
2025

Abstract

Effects of Summer School Attendance on the Assessed Reading Proficiency of Third Grade Students

by

Lydia Evers

Dissertation Submitted in Partial Fulfillment

of the Requirements for the Degree of

Doctor of Education

Walden University

August 2025

Abstract

Evidence shows students who are not reading proficiently by the end of third grade are more likely to eventually drop out of high school or be considered illiterate as adults, making it challenging to function adequately in society. The problem addressed through this study was that as many as 60% of U.S. third-grade students scored below proficiency on annual standardized reading assessments. Guided by faucet theory by Alexander et al., the purpose of this causal-comparative quantitative study was to compare reading standardized test scores of third-grade students who participated in a summer school program (SSP) in the summer following second grade with those of students who did not. Archival data from 223 third-grade students from 3 Title I elementary schools in the southeastern United States included Lexile scores of 46 who attended an SSP and 177 who did not. One-way analysis of variance (ANOVA) detected no significant difference in reading proficiency levels between students who attended an SSP after second grade and students who did not ($p = 0.467$). These study findings should be approached with caution, however, because the study was underpowered due to the inadequate sample in the attended SSP group. Future research should explore implementation features of the SSP and use larger samples. Positive social change may be achieved if the results of this study promote awareness of factors of successful SSPs, and changes promote increased reading proficiency. Reading proficiency, and the ability to gain independence through education. Making appropriate changes to the SSP may encourage student persistence through high school and be of benefit to society through increased adult literacy.

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Dedication

I want to dedicate this dissertation to my late husband, Louis Coleman Evers, an incredible human being who was always my greatest encourager during the time I spent with him. Although he left this world without seeing me make it to the finish line, he never doubted I would and assured me this day would indeed come. Because of Cole, I remained dedicated and did not give up. As Cole always said, the only person who can stop you from achieving a goal is yourself, and during the hard days over the last two years, I have always remembered that. Cole inspired me to advance my career through many challenges and obstacles; he also instilled a resilience in me that I maintained after losing him, and for which I will be forever grateful. Cole truly valued education, and as he saw my love for children and literacy development, he inspired me to make advancements in my career that could result in a better opportunity for all children in this school district to receive the education they deserve. As it pains me, Cole is not here to witness this accomplishment, and I will never forget the unwavering support he showed me through the last three degrees I have obtained. This is my greatest accomplishment regarding my educational journey so far, and I am proud to say that this one is for you, Cole.

Acknowledgments

First and foremost, I would like to thank my chair, Dr. Anderson, for her unwavering support and motivation throughout this entire process. From the very beginning of this journey, Dr. Anderson has communicated with me consistently and has been more than available when it came to feedback and questions. I could not have obtained this monumental milestone without Dr. Anderson's hard work and dedication, and she continually offered me the support that was needed to succeed. I would also like to thank Mr. Second Chair, Dr. Reed, for being easy to work with and providing timely feedback, which ensured no delays impeded my progress. I would also like to thank the program director, Dr. Wahl, for her dedication to this program and the success of students at Walden University. I could not have reached this goal without the support from my parents, sisters, and in-laws, who helped me nearly daily at some points, providing childcare for my daughter so I could get this work done. For that, I will never forget and will be forever grateful for their unshakeable support through this journey. In addition to my living family, I would like to acknowledge my Pa, who is deceased but always reminded me to "study for keeps", and that has stuck with me on the hardest days. I still have a letter he wrote me with this saying. Most importantly, I would like to acknowledge Jesus Christ Himself, who is the only way I have managed to accomplish this during the hardest season of life I never knew I would have to face. He is the ultimate healer and provider, and I can do all things through Him who gives me strength.

Table of Contents

List of Tables

List of Figures

Chapter 1: Introduction to the Study

The focus of this study was the idea that summer school programs (SSPs) may improve proficiency in reading among elementary grade students. This study was needed because minimal research had been conducted to determine whether a difference exists in reading test scores among students who participated in an SSP and those who did not (Pyne et al., 2023). Positive social change may occur if SSPs are applied effectively to improve reading proficiency; reading proficiency and foundational literacy skills benefit people and society in numerous ways (Amirova, 2020). In this chapter, I present the problem for this study, its purpose, and the research question that was answered through analyzing secondary data. I also describe the research design, theoretical foundation, limitations, and the assumptions I made in embarking on this study.

Background

Illiteracy and reading problems in the United States are widespread (Klages, 2020) and American students continue to underperform on standardized assessments, specifically in reading (Morris & Gill, 2023). Illiteracy is especially evident among low-income students (Morris & Gill, 2023). This problem was meaningful because students who cannot read proficiently by the end of third grade are four times more likely to drop out of high school when compared to students who can read proficiently (Klages, 2020). According to Klages (2020), 65% of fourth graders in the United States cannot read proficiently, nor can 66% of eighth-graders. Lack of foundational reading skill has contributed to persistently low reading proficiency levels among American students (Fien

et al., 2021). Policymakers and administrators have attempted to aid teachers with instructional practices to address the declining reading proficiency of students in the United States; however, lack of reading proficiency remains an issue (Fien et al., 2021).

In a survey of nearly 3000 school districts throughout the United States, Hung et al. (2020) found achievement gaps among third through eighth grade students steadily increased between 1988 and 2013, and were associated with student race and socioeconomic status, with the largest gaps in the south and southwestern regions of the country. According to Byrd (2020), the achievement gap in reading in the United States is affected by students' socioeconomic status for many reasons but especially because low-income students have limited access to educational resources when school is not in session. These resources include books, computers, and internet access, which are all necessary to maintain and augment learning when school is closed and after school hours (Byrd, 2020). Byrd noted that students who are English language learners or African Americans from low income households often have fewer instructional opportunities available to them during summer months than do other students, which exacerbates the existing achievement gap. Gierczyk and Hornby (2023) agreed that summer learning loss contributes to low reading achievement among students in the United States. Atteberry and McEachin (2021) analyzed data from growth assessments given to 18 million American students in grades 1 to 8. They found that 17% to 34% of information learned by students during the previous school year is lost during the summer months.

To address the issue of summer learning loss and solve the problem of low literacy rates of students and increasing failure rates on standardized assessments, schools

have implemented SSPs (Hornby & Gierczyk, 2023). SSPs can be expensive to run, so knowing how effective they are in supporting reading achievement is essential (Kuhfeld et al., 2023). This is complicated by the fact that, according to Pyne et al. (2023), various research studies have not determined the effectiveness of SSPs in supporting reading achievement. According to Pyne et al. (2023), SSPs reduce student dropout rates, develop work habits that improve academic achievement, and help close the achievement gap. Dujardin et al. (2022) suggested further research should be conducted to determine the effectiveness of SSPs in developing students' reading proficiency. In this study, I determined whether the attendance at an SSP by students in three Title I schools in one rural school district in the southern United States, in the summer following second grade, improved the test scores of students who were assessed in reading at the end of third grade.

Problem Statement

The problem addressed through this study was that as many as 60% of U.S. third grade students score below proficiency on annual standardized reading assessments. The poor performance of the United States on standardized assessments could be connected to learning loss over the summer (Quinn & Polikoff, 2022). This problem was meaningful because literacy skills are needed to function as a successful adult in modern society (Min & Munasinghe, 2022). SSPs have been implemented to improve test scores; however, Strong and Anderson (2023) noted only minimal to modest growth in academic achievement is evident in some students who attended an SSP, despite the significant resources often devoted to SSPs. Because some authors (Pyne et al., 2023; Strong &

Anderson, 2023) reported minimal academic growth following SSPs, and some research findings (see Lynch et al., 2022; see McCombs et al., 2019) indicated a wealth of academic growth and development following SSP participation, it is evident that mixed findings are prevalent regarding the effect of SSPs on learning loss or academic achievement. According to McCombs et al. (2019), various factors, such as the research basis for program content, program logistics, educator training, and relevance of an SSP in local context, can all influence the academic growth of students either negatively or positively. This problem is illustrated through data from four schools in the study state and the study state as a whole, as depicted in Table 1.

This study addressed this gap in practice and the gap in research by determining whether there was a difference in the standardized test scores of third grade students who did or did not attend an SSP the summer following their second-grade year. This problem is relevant to early childhood education because educators use standardized assessment scores to make academic decisions and comparisons (Yang, 2023). In addition, standardized assessment scores and reading proficiency levels these scores depict are used by policymakers to measure students' performance across different states and assess educational outcomes so various educational systems can be compared (Peterson & Shakeel, 2023). Policymakers then use this comparison to determine which educational

Table 1

Percentage of Third Grade Students Scoring Below Proficient in Reading in the Study State and in Four Title I Schools

School Year	School 1	School 2	School 3	School 4	Study State
2014-2015	67	94	96	94	63
2015-2016	69	91	91	95	65
2016-2017	65	86	93	92	64
2017-2018	73	94	96	94	63
2018-2019	63	96	93	91	58
2021-2022	76	91	94	89	64
2022-2023	68	88	90	92	62
2023-2024	68	84	84	82	65

*Source: internal district reports.

systems need allocated resources, additional support, or reforms implemented (Peterson & Shakeel, 2023). These standardized assessment scores are important to policymakers. In addition, of course, reading assessment indicates the ability of children to read well and be successful in school. Because summer learning loss may be one reason reading scores declined across the United States (Hornby & Gierczyk, 2023), I investigated the efficacy of SSPs as a possible solution to the problem.

Purpose of the Study

The purpose of this quantitative study was to compare reading standardized test scores of third grade students who participated in an SSP in the summer following second grade with those of students who did not. The independent variable was participation in an SSP in the summer following second grade. The dependent variable was standardized reading scores of third grade students.

Research Question and Hypotheses

One research question guided this study: Is there a difference in reading standardized test scores of third grade students who participated in an SSP in the summer between second and third grade and scores of students who did not?

HO: There is no difference in achievement scores in reading between third students who participated in an SSP and students who did not.

H1: There is a difference in achievement scores in reading between third grade students who participated in an SSP and students who did not.

Theoretical Foundation

The theory that formed the theoretical foundation of this study was the faucet theory described by Entwisle et al. (2001). Alexander et al. (2001) suggested that when school is in session, the resources needed to acquire knowledge are equally available for all students, which indicates the learning "faucet" is turned on. When school is not in session, school resources are turned off for students, and only students with access to learning opportunities through non-school sources continue to learn (Alexander et al., 2001). According to Keppens (2023), the faucet theory is based on the belief that students

with more exposure to school have the opportunity of improving academic skills and making educational gains. Kim (2021) reported that youth from low SES homes have difficulty physically accessing books over the summer, which may inhibit their reading development.

The logical connection between the framework presented and this study is that many students at the Title I schools that were the focus of this study were of low-income status and were minority students, and so may have experienced a lack of reading support during the summer. These schools offered an SSP to improve reading proficiency for all students between the second and third grades; whether this goal was achieved based on SSP attendance was the intention of this study. The faucet theory suggests that SSP attendance could result in higher reading scores for participating students (see Alexander et al., 2001). Further explanation of the faucet theory will be provided in Chapter 2.

Nature of the Study

This study design was quasi-experimental because I used existing data, as described by Butin (2010), to determine the relationship between SSP participation of second grade students and the standardized test scores in reading of the same students in third grade. A quasi-experimental design was an appropriate choice because this study involved groups for which membership was self-selected or predetermined (Burkholder et al., 2020). It would not have been principled to randomly allocate participants into experimental or control groups identified by participation in an SSP, and, because the study used secondary data, such assignment was no longer possible at the outset of the study. These constraints made a quasi-experimental design a suitable choice (see

Burkholder et al., 2020). Quasi-experimental designs are often used to determine whether a particular intervention is effective (Butin, 2010). In this study, the independent variable was participation in an SSP in the summer following second grade, and the dependent variable was third grade standardized assessment scores in reading, matched to each student. Specific scores of 223 third grade students enrolled in one of three Title I schools in a rural school district in the southern United States were accessed through the student longitudinal data system. The scores depicted student reading proficiency levels according to the standardized assessment administered each spring in the target state.

Underperformance in reading in these schools ranged from 68% to 92% of third graders in the spring of 2023 (see Table 1 above). An inferential statistics technique identified as a one-way analysis of variance (ANOVA) test was used to analyze the data collected from student test scores. The ANOVA determines the statistical significance between the scores of two groups, with a dependent and independent variable (Wagner, 2020). The ANOVA assessed the statistical differences between the mean scores of the two groups across one variable.

This study used a posttest-only design with nonequivalent groups because this study involved two groups, one being the experimental group, which had been exposed to the SSP treatment, and the control group that had not been exposed to treatment (see Burkholder et al., 2020). In other words, participants who attended the SSP formed the experimental group, and participants who did not formed the control group (see Burkholder et al., 2020). These groups were compared on the dependent variable, the reading proficiency levels demonstrated by students on the standardized assessment in

the spring of third grade after exposure to the independent variable of SSP intervention in the summer following second grade. A quasi-experimental design was used for this study because the dependent variable was compared across the experimental and control groups to determine if the independent variable had an effect; there was only one post-test variable, and experimental group, and a control group, with no pre-test (see Burkholder et al., 2020).

Definitions

This study used multiple terms, theories, and notions in which the definitions were relevant to the research.

Student longitudinal data system is defined as comprehensive databases that track individual student records over time, allowing researchers to analyze educational experiences (Pfeiffer & Klein, 2021).

Summer learning loss is defined as the decline in academic skills and knowledge students experience during summer break when they are not actively engaged in educational activities (Gierczyk & Hornby, 2023).

Summer slide is defined as the potential loss of academic skills and knowledge that students may experience during the summer break (Carter et al., 2023).

Title 1 school is defined as those that receive federal funding under Title 1 of the Elementary and Secondary Education Act (ESEA). This funding it aimed at improving educational opportunities for economically disadvantaged students (Grant, 2023).

Assumptions

Several assumptions were considered when undergoing this research. I assumed

that the standardized test results authentically and accurately depicted a student's ability regarding reading proficiency levels. In addition, I took for granted that the implementation of the standardized assessment followed procedures developed by the assessment publisher. I presumed that the instructors of the SSP implemented effective teaching methods that challenged students to learn and motivated them to participate. These assumptions were necessary in the context of the study because although the SSP formed the treatment for this study, how it was conducted by each program instructor and how reading proficiency was subsequently assessed by each classroom teacher were not monitored and so were assumed to be valid.

Scope and Delimitations

The scope of this study encompassed reading standardized test scores of third grade students who participated in an SSP following their second-grade year and scores of students who did not. The data collection and analysis of participants' standardized assessment test scores were used to determine whether the independent variable of SSP participation significantly affected the problem of low reading proficiency. This focus was chosen because an adequate reading level must be obtained in the elementary grades for accomplished or effective learning to occur in the future (Crosh et al., 2024). Early literacy development plays a critical role in forming a student’s future academic abilities, and early literacy activities must be implemented with young children, particularly those at a disadvantage (Crosh et al., 2024). Participation in an SSP is intended support reading proficiency as determined by standardized assessment, but prior research has delivered mixed results on this possibility (Pyne et al., 2023).

Data included third grade reading assessment scores of students in the target schools who did or did not attend an SSP in the summer following their second grade year, as determined by recorded SSP attendance. Excluded were data from students who did not attend an SSP in the summer following their second grade year, data from students who were not assessed in reading in the spring of their third grade year, and data from students who did not meet both criteria of SSP attendance and reading achievement assessment. Transferability may be affected by these exclusions in situations in which the timing of SSP enrollment and reading assessment are different from described in this study, or in situations where SSPs enroll students of different grade levels, or to application to other regions of the United States.

Limitations

A post-test only design means there is potential for an additional determinant variable to be present in the study (Morris & Gill, 2023). The time gap between student attendance at the SSP and administration of the reading assessment student attendance at the SSP and administration of the reading assessment threatened internal validity because numerous factors other than the treatment could have influenced the dependent variable. These limitations were unavoidable because the study parameters were based on the practices of the study schools.

Significance

This study is significant because the data collected can be used to inform the problem of low third grade reading scores, which could lead to positive social change through adjustments that improve student reading achievement. The findings of this study

indicated no statistically significant difference in reading proficiency among students who did and did not attend an SSP. Knowledge has been advanced in the discipline for this study because achievement gaps in standardized assessments have continued to widen in the United States year after year, with students from lower income status frequently identified as struggling readers (Matheny et al., 2023). The lack of efficacy of the SSP in this study suggests the need for more action to resolve this problem. In addition, according to Hunt et al. (2024), students from lower-income families are more susceptible to summer learning loss than are students from wealthier families due to less access to materials needed to stimulate learning, such as books or technology, during the summer months. Summer learning loss has long-term consequences, with a negative impact on student academic success in the future, specifically for those from low-income households. Targeted interventions such as SSPs may assist in supporting these students and mitigating this learning loss gap between low-income students and wealthier students (Hunt et al., 2024), but the efficacy of SSPs has been open to debate (Pyne et al., 2023). Therefore, this study's results could advance practice and policy among educators, schools, and school districts and improve their efforts to implement an SSP.

Summary

In Chapter 1 I addressed the significance and relevance of the current issue of low reading proficiency for many years, and research was provided to support this issue. In this study, I compared the standardized assessment scores of third grade students who participated and did not participate in an SSP in the summer following the second grade year. Examining these differences answered the research question identified in this

chapter regarding the effect of SSP attendance on reading test scores. The study's theoretical foundation, the faucet theory of Alexander et al. (2001), was introduced, and a description of how this theory connects to this study was included. This chapter also included the study's quasi-experimental design using secondary data, limitations, assumptions, and definitions needed to support the study findings. In Chapter 2 I provide a comprehensive review of literature that depicts what is known in the discipline related to this topic.

Chapter 2: Literature Review

The research problem investigated through this study was that as many as 60% of U.S. third grade students score below proficiency on annual standardized reading assessments. The purpose of this quantitative study was to compare standardized test scores in reading of third grade students who participated in an SSP in the summer following second grade with those of students who did not. Although research supports that summer learning loss is prevalent and negatively impacts student reading proficiency in the United States, there has been mixed evidence regarding the efficacy of SSPs in supporting students' reading achievement (McCombs et al., 2019). The problem of low reading achievement is important because reading literacy is a key competence that enables individuals to function and become successful as adults (Min & Munasinghe, 2022). Chapter 2 describes the process I followed to locate resources connected to this study's problem and phenomenon, the theoretical foundation of this study, and a review of current literature connected to and supporting the importance of the problem in this study.

Literature Search Strategy

Numerous sources were used when completing this literature review. These included peer-reviewed articles, educational organization websites, and the website of the Department of Education in the study state, which was utilized to gather data and reports on standardized test scores. The following databases were accessed and used throughout the completion of the literature review: Academic Search Complete, EBSCOHOST, ERIC, Google Scholar, ProQuest Digital Dissertations, and SAGE Journals Online. The

terms or phrases used when searching for information within these databases were as follows: *achievement gap and summer learning loss, adult literacy rates, effects of summer learning loss, effects of summer school programs on test achievement, effects of summer school programs on literacy, faucet theory, illiteracy rates, literacy among elementary school students, reading proficiency achievement and standardized assessments, reasons for summer school programs, significance of standardized assessments in education, socioeconomic achievement gap, summer learning loss, summer school program implementation in the United States, summer slide, third grade reading proficiency in United States, third grade reading proficiency in [the study state],* and *widening achievement gap.*

When searching for information on the theoretical framework and the phenomenon of summer learning loss and its effects, I used the terms *achievement gap and summer learning loss, effects of summer learning loss, faucet theory, summer learning loss, summer slide,* and *the socioeconomic achievement gap.* When researching the information that supported the problem and its importance, the following terms and phrases were used: *adult literacy rates, illiteracy rates, literacy among elementary school students, reading proficiency achievement and standardized assessments, significance of standardized assessments, and the socioeconomic achievement, third grade reading proficiency in [the study state],* and *third grade reading proficiency in the United States.* Lastly, to locate literature on the treatment or intervention for this study, I used these terms and phrases: *effects of summer school programs on test achievement, effects of summer school programs on literacy, reasons for summer school programs,* and *summer*

school program implementation in the United States.

Theoretical Foundation

The faucet theory (Alexander et al., 2001; Entwisle et al., 2001) formed the foundation of this study of summer learning loss and the efficacy of SSPs in reducing this loss. The faucet theory was first described by Entwisle et al. (2001), and applied by Alexander et al. (2001) to explain why children from lower socioeconomic households perform worse than their peers from middle or high socioeconomic backgrounds. This theory is based on the principle that school plays a significant role in academic achievement, particularly for those from low socioeconomic backgrounds, and the belief that all students can learn regardless of socioeconomic status (Alexander et al., 2001). According to the faucet theory, schooling is a powerful tool for children's academic development, as demonstrated by reduction of student learning when schools are closed compared to learning when schools are in session (Alexander et al., 2001). Alexander et al. noted that schooling is most powerful for students whose academic support outside of school is weak, typically for students from low-income families. Therefore, time spent out of school, such as during the long summer break, keeps disadvantaged students from reaching what they are truly capable of academically, and the achievement gap between privileged and underprivileged students continues to widen (Alexander et al., 2001).

The faucet theory was developed following a review, culminating in 1997, of academic achievement among 790 first grade students from 20 elementary schools (Entwisle et al., 2001). Alexander et al. analyzed these data comprising 5 consecutive years and found specific seasonal academic performance and growth patterns. For

example, findings indicated that in the winter of each school year, all achievement levels of the first-grade students were relatively similar. Between fall and spring, when school was in session, all students made nearly identical academic gains in mathematics and reading (Alexander et al., 2001). In contrast, at the start of school in the fall, after students were on hiatus during the summer months, students from low-income homes showed lower achievement compared to their own scores the previous spring, and students from higher income homes gained points. Across all 5 years of study, Alexander et al. determined that low-income students gained, on average, less than 1 point in reading and lost 8 points in mathematics from spring to the following fall. In contrast, the higher-income students gained 47 points in reading and 27 points in mathematics in this same summertime period (Alexander et al., 2001). During the winter months, the disparity in student test scores by household income remained relatively stable over the 5 consecutive years included in the data set. Summer months were identified as the source of the widening achievement gap, and the faucet theory was developed to make sense of these seasonal patterns (Alexander et al., 2001).

A key principle of the faucet theory is that home environments significantly affect academic success and that some students have experiences at home that sustain academic growth in the summer months (Alexander et al., 2001). In contrast, other students who are provided with little experience at home connected to educational success are negatively affected by the loss of daily schooling in summer. Wealthier students may make gains in mathematics and reading because the “faucet” continues to flow with learning opportunities provided for them by their parents and the community, and lower

income students fall behind because the faucet for them is turned off due to lack of learning opportunities (Alexander et al., 2001).

The faucet theory derives from the belief that the increase in academic gaps based on household income can be traced mainly to the out-of-school environment (Alexander et al., 2001). According to the American Psychological Association (2023), an achievement gap is evident across socioeconomic levels starting in the primary grades, and this gap follows students throughout high school, resulting in increased dropout rates and lower test scores among students from low-income households. The faucet theory suggests that low-income children are placed at a learning disadvantage and achieve less than wealthier classmates due to inequities in access to learning opportunities outside of school during the summer months (Alexander et al., 2001). Consecutive summers of falling behind have created the achievement gap in the United States, with low-income students lagging behind the performance of wealthier peers (Alexander et al., 2001). A remedy for this achievement gap could be to keep the faucet flowing for all students through summer learning programs or to provide readily available learning resources for low-income students (Alexander et al., 2001).

The faucet theory has been used as the basis of several research studies that explored school closure and how this affected low-income students academically. For example, O'Connell (2020), in a study conducted in rural Minnesota with 97 upper elementary and middle school students, found that learning gains in reading following the creation of an SSP were made in two grade levels and that three grade levels maintained above benchmark status the summer these resources were provided. School closure

during the pandemic of 2020-2021 did widen the achievement gap, with students from low-income backgrounds demonstrating greater learning loss when compared to students from higher income households (Alejo et al., 2023). Reasons included students from low-income families already being behind academically prior to the pandemic, having limited access to support or remote learning, being less likely to receive assistance or oversight at home, facing greater problems returning to school, and often returning to schools inadequately equipped to ensure their needs were met (Alejo et al., 2023). Coley et al. (2020) stated that year-round investments to provide resources and access to schooling are vital to ensure the academic success of lower-income students. Keppens (2023) concluded that students who receive fewer hours of instruction during the school year than other students have lower test scores and a higher chance of dropping out of high school in later academic years.

The rationale for choosing this theory was that Alexander et al. (2001) suggested an SSP could be a tool to reduce summer learning loss. Therefore, this theory connected directly to this study because standardized test scores were suspected to differ depending on whether students were engaged in formal learning during the summer. In addition, the faucet theory connected directly to the current study because an SSP was developed in the target district to address summer learning loss and low reading achievement, which was the concept on which the faucet theory was founded. The faucet theory is based on the assumption that schooling is an influential and dominant tool that affects students' academic success and that students continue to grow academically throughout the school year when they have access to learning over the summer. The effectiveness of SSPs in the

schools that were the location of this study in keeping the faucet flowing for students and improving their reading proficiency on standardized assessments was determined through this research.

Review of Literature Related to Key Concepts and Variables

In this literature review I summarize major themes within the literature and what is known in the discipline related to the topic of this study. In this literature review, I also discuss how the present study fills gaps in the literature and may extend knowledge related to practice. I describe reading failure as an ongoing problem, provide information on the history of reading failure, and discuss the major factors that have contributed to students' struggles in reading proficiently. In addition to discussing reading failure and its prevalence across the country, in this review I describe ways SSPs are used as tools to improve reading proficiency among students.

Reading Failure as an Ongoing Problem

Poor reading ability among American students is not a new development. There was a significant decline in reading skills among students across the United States from the year 1970 to 1990; even with increased spending on educational resources during these years, reading skills of students steadily declined (Walberg, 1996). Furthermore, during these years the U.S. had the highest public-school cost among its peer nations, indicating a discrepancy between resources distributed for educational purposes and the reading progress of students (Walberg, 1996). The National Center for Educational Statistics [NCES] (2019), reported that 43 million adults in the United States had low literacy skills. Reading failure has been a persistent problem in the United States,

resulting in high student dropout rates and a lack of motivation to succeed academically (Klages, 2020).

Large numbers of American children are unable to comprehend texts, and as a result, these students are unable to perform reading tasks years later that are needed to function adequately in today's society (van der Sande et al., 2023). According to the National Assessment of Educational Progress [NAEP] (2024), both fourth and eighth grade reading scores declined compared to scores in 2022. The reading scores of fourth graders were two points lower compared to 2022 and 5 points lower compared to 2019, displaying a decline in reading scores of fourth-grade students over the past five years (NAEP, 2024). Sixty-nine percent of fourth-grade students scored below proficiency in reading in 2024, leaving only 31% of fourth graders at or above proficiency (NAEP, 2024). Seventy percent of eighth grade students scored under proficiency in reading according to the NAEP results, with only 30% scoring at or above proficiency. The scores of eighth graders have continued to decline in reading since 1992 (NAEP, 2024).

The problem persists after high school graduation, with many American college students struggling with reading comprehension throughout their college courses (Kalbfleisch et al., 2021). According to Kalbfleisch et al. (2021), the reading difficulties college students face in the United States harm their overall learning experience and academic performance. In April 2020, 21% of adults in the United States could not read and were considered illiterate (NCES, 2022). In addition, in 2020, one in five Americans could not read further than an elementary school level, meaning that 66 million Americans could not read health materials about the COVID-19 pandemic (Feinberg,

2021). Many of these 66 million Americans had not developed phonics skills, fluency, or phonemic awareness in 2020, resulting in the inability to read anything written above a fifth-grade level (Feinberg, 2021).

The widespread use of assessment in elementary education has had the effect of reducing literacy instruction (Cawthon & Shyyan, 2022). Due to pressure for students to perform well on these assessments, educators have put test preparation at the forefront in their classrooms rather than comprehensive learning (Hardy, 2023). Hardy (2023) reported time spent in assessment and preparation for assessment had limited students' critical thinking development (Hardy, 2023). According to Francois and Hood (2021), standardized assessments do not consider diverse backgrounds, which increase the difficulty of these tests for minority students, who may lack content-specific background knowledge to perform well on these assessments. Cawthon and Shyyan (2022) identified issues with standardized assessments involving equity for students with disabilities and English language learners.

Factors have created variance in literacy rates across different demographic areas and regions within the United States (Greer et al., 2021). For example, rural areas in states with high poverty rates tend to be even poorer than more urban areas in the same states, resulting in a higher percentage of students in rural areas demonstrating a lack of reading proficiency (Nannemann et al., 2024). Nannemann et al. (2024) reported that in one poor rural community in the southwestern United States only 25% of the adult community could read proficiently in the year 2021-2022. Regions in the United States where state and local governments spent more money on education were identified as

having higher literacy rates when compared to regions where funding for education was relatively low (Haque et al., 2022). Arnaud and Gutman (2021) found that students in high-poverty communities commonly do not attain the literacy skills needed to read proficiently and function well in society. Children in very low-income rural communities are at a much higher risk of reading failure and illiteracy than those who do not live in these communities, causing a significant variance in reading failure based on the areas where individuals live (Arnaud & Gutman, 2021). In addition, achievement gaps in reading among Black and White students are largest in the southern and southwest regions of the United States (Hung et al., 2020). The nation's literacy variance is primarily due to socioeconomic status, teaching methods, and administrative policies in rural areas of states with little spending on public education (Salas & Pascual, 2023).

The school district that is the location of this study is in a rural area in the southern region of the United States. According to NAEP (2022), in 2015, 2017, and 2019, the study state had significantly lower reading proficiency levels than the nation, and in 2022, 61% of students in the study state were reading below proficiency at the end of fourth grade. In the spring of 2024, 35% of third grade students in the study state scored below proficiency in reading (NAEP, 2024). In contrast, the four target schools for this study had the following percentages of students score below proficiency in reading: 68%, 84%, 84%, and 82% (NAEP, 2024). These data indicate that the four target schools for this study had a greater number of students reading under proficiency compared to schools in the study state as a whole. According to internal reports of the Department of Education in this state, gaps in literacy between rural and urban areas of the study state

are due to minimal connectivity between home and school, low teacher retention, ineffective teacher recruitment, lack of educational resources, and inadequate healthcare, which worsened after the COVID-19 pandemic. Internal reports describing the standardized assessment scores of students in the study stated from the year 2023, 52% of students in the rural school district that is the location of this study were reading below proficiency at the end of third grade, compared to only 17% of students reading below proficiency in an urban school district in the same state. Data provided by the state revealed the proportion of third grade students reading below proficiency in four other rural areas in the study state ranged from 60% to 80%, compared to only 10% to 18% third grade students reading below proficiency in four urban areas in the study state. Furthermore, Herring et al. (2022) noted that children in rural areas often have fewer schools to choose from, underqualified educators teaching in those schools, lack of learning materials, longer travel distances, limited access to technology, greater health disparities, less government support, fewer extracurricular activities, and shortages of well-qualified teachers. These factors reduce reading proficiency in rural areas (Herring et al., 2022). Unlike urban areas in the United States, rural areas typically have dense student populations, less educational funding than other areas, and a lack of qualified educators (Mauldin et al., 2022).

Terry et al. (2022) stated that as of July 2022, educational disparities in the United States in reading remained prevalent, especially for Black children and children living in poverty, with 45% of White children in fourth grade reading proficiently, and only 18% of Black children reading proficiently. Dong et al. (2022) reported the gap between Black

and White students in reading to be increasingly prevalent in grades 3 to 5, with White students outperforming Black students without regard to preschool attendance, suggesting that community demographics is a driver of student reading achievement and failure. According to Herring et al. (2022), racial and socioeconomic discrepancies and inequalities negatively affect students' reading proficiency across the United States, particularly by the end of third grade; these factors have contributed to reading failure and the achievement gap nationwide. While this gap associated with race and socioeconomic status is concerning, it is important to notice that among children of all backgrounds, over half (63%) of American students in fourth grade could not read at a proficient level in July 2022 (NAEP, 2022).

The History of Reading Failure

Reading has existed for roughly 6,000 years and has been a heavily researched topic since the 1980s not only in the U.S. but globally as well (Snow, 2020). Some minority groups, such as Black Americans, have faced challenges in learning to read and write due to lack of resources, lack of effective literacy programs, and systematic barriers (Challenger & Eng, 2021). Although the Civil Rights movement did attempt to address reading failure among Black Americans, in 1966 50,000 Black Americans still were identified as illiterate (Challenger & Eng, 2021). The achievement gap between White Americans and Americans of color still exists today, with Black and Latino students struggling in reading when compared to White students (Shockley, 2021).

The problem of reading failure persisted; over half of the fourth graders in the early 2000s were not reading proficiently (NAEP, 2022). By 2010, reading failure in

elementary school remained a significant issue, particularly for students in Title 1 schools, with 26% of third graders from low-income backgrounds reading below grade level (Holder et al., 2016). In 2010 the number of frequent readers across the United States declined by nearly six percent, which consequently resulted in the number of infrequent readers increasing (Matthews, 2021). Although Common Core standards in reading were widely adopted in 2010 with the intention to improve student achievement (Deas, 2018), reading proficiency among students in elementary school steadily decreased between 2015 and 2019 (Matthews, 2021). Despite numerous attempts by U.S. educators and policymakers to address the problem of low reading proficiency, the number of students who cannot read has remained persistent (Morris, 2022). According to the Department of Education in the study state, reading proficiency is determined by a child's Lexile level and must be on or above 520L for the child to be considered a proficient reader.

Basma and Savage (2023) noted that students must possess reading strategies and the ability to read proficiently to gain information in content areas other than reading. The lack of appropriate reading strategies can result in students struggling across the curriculum (Basma & Savage, 2023). Galbally and Scharff (2022) reported that the existing literacy crisis was exacerbated by the COVID-19 pandemic, with 30% of second and third graders in the year 2021, falling below the reading fluency rates typically gained in an academic school year. Fluency rates typically gained in an academic school year includes 20 to 30 words per minute (Chyl, 2021). According to Kuhfeld et al. (2022), COVID- 19 caused many educational disruptions, resulting in a severe decline in the

reading scores of students in grades 3 to 5, particularly those living in poverty. Horn et al. (2023) stated that school data, particularly from students in grades K- 3, displayed a decline in reading among students the year following the pandemic. Over the first 2 years following the pandemic, data collected from 950,000 students from U.S schools displayed major declines in reading scores among students in grades 1 through 6, indicating that the lack of foundational literacy skills persisted across the United States (Gray et al., 2023). The achievement gap in literacy in the United States widened following the pandemic and Black students, particularly in grades 3 to 5, experienced the highest decline among all students in reading standardized test scores (Relyea et al., 2022). In 2021, the average student achievement fell 4 months behind in the area of reading, with minority students from low socioeconomic households falling even further behind, resulting in further widening of the literacy achievement gap that already existed (Kirp & Macpherson, 2022). In summary, the data supporting the setbacks of low-income students include average declines in academic performance of 5 months in mathematics and 4 months in reading, and the acknowledgement that even greater challenges were faced by low-income students compared to their peers due to stress, lack of access to resources, and limited support systems (Kirp & Macpherson, 2022).

The literacy achievement gap increased by 15% the year following COVID-19 (Evans et al., 2023). Kuhfeld et al. (2022) suggested public schools that suffered the worst academic decline because of COVID- 19 be supplied with the resources and instructional improvements needed to improve reading proficiency. Terry et al. (2022) urged more research to investigate educational policies and practices needed to mitigate

the current achievement gap in reading, mainly due to individuals' race and socioeconomic status. Reading failure has remained prevalent across the United States, not only due to COVID-19 but also due perhaps to inconsistency in implementing reading instruction in the classroom (Nelson et al., 2022).

Factors that Contribute to Reading Failure

Although the COVID-19 pandemic exacerbated reading failure, it had been an ongoing problem for over 50 years (Challenger & Eng, 2021). In this section, I will describe the effects of poor instruction, lack of resources, lack of English proficiency, and lack of motivation to read on students' ability to master reading by the end of third grade. I will describe problems with reading instruction first.

Poor Reading Instruction

According to Burk and Hasbrouck (2023), 95% of the children in the United States have the potential to read on or approaching their current grade level, including students with dyslexia or reading disabilities, if these students receive adequate instruction from an educator. Many adults and educators assume reading proficiency develops naturally but this is not the case (Klages, 2020). Reading must be taught directly and effectively based on the science of reading to obtain literacy skills in pupils (Hiebert, 2023). More specifically, reading should be taught directly and effectively through educators providing explicit instruction, abundant practice, and regularly addressing misconceptions (Hiebert, 2023). According to Snow (2020), with the correct instruction, only 5% of children should be considered illiterate. However, two-thirds of American students cannot read proficiently, and this is commonly due to gaps in the

instructional practices of educators (Burk & Hasbrouck, 2023). Teachers' knowledge of reading instruction and the efficiency of teaching strategies used in the classroom directly affect students' reading proficiency, either negatively or positively (Basma & Savage, 2023).

Although many authors agree that reading requires skill in decoding and linguistic comprehension (Duke & Cartwright, 2021), extensive research since the late 1990s (Boucher et al., 2023; Clay, 1997; Wanzek et al., 2013) demonstrated that reading difficulties have several causes not due to decoding or linguistic comprehension. For example, linguistic comprehension and decoding overlap in many ways and are not learned independently, and require learner-specific self-regulatory processes for integration of these skills (Duke & Cartwright, 2021). Instructional focus on basic cognitive mechanisms of reading and the mastery of decoding skills (Shanahan, 2020) is contrasted with an instructional focus on creating interest in reading and developing critical thinking skills as essential for reading proficiency (van der Sande et al., 2023). This debate over the most effective way to teach reading has led to confusion on the part of teachers and to ineffective instructional strategies (Duke & Cartwright, 2021). Many different reading programs have been adopted over the years to improve instruction (Nannemann et al., 2024); however, reading failure is attributed to educators' ineffectiveness and inconsistent use of the reading instructional methods available to them (Nelson et al., 2022).

Inadequate instruction leads to illiteracy (Klages, 2020). The lack of literacy development evident in achievement test scores results from inappropriate and ineffective reading instruction the students received in their younger years (Hiebert, 2023). When

educators are not equipped with the knowledge to teach reading effectively, they often rely on teaching fads that are not research-based and they may not have knowledge of the appropriate instructional methods to use when teaching reading (Klages, 2020). Many teachers need help to balance the complex components of reading instruction to effectively teach all children with various needs and ability levels to read proficiently (Fletcher et al., 2020). Teachers play a vital role in selecting the appropriate instructional tactics in their classrooms (Rice et al., 2024). If instruction is not implemented effectively, reading failure or difficulty can be the consequence (Rice et al., 2024).

Lack of Resources

Lack of resources in young children's in homes, families, and schools negatively affects their ability to learn to read (Taylor et al., 2023). I will discuss factors of household and community poverty, lack of access to reading material at home and at school, and lack of time at home and at school to develop children's abilities. I will also address cognitive deficits that may affect children's ability to learn to read, lack of affordable access to high quality childcare, and lack of support of teachers from reading experts.

Poverty is a significant factor in children's ability to learn to read, because it compounds the negative effects of other factors that affect reading ability (Romeo et al., 2022). Terry et al. (2022) noted that in 2019, 79% of fourth-grade students who participated in subsidized lunch programs were not reading proficiently. According to Taylor et al. (2023), low socioeconomic status negatively affects a child's early language skills and subsequently negatively influences reading achievement. Children who grow

up in poverty from birth face many barriers that impede their oral language development, which is critical for mastering the skill of reading (Taylor et al., 2023). These children typically have minimal exposure to environments where language is actively used and encouraged, and this lack of exposure leads to a smaller vocabulary and minimally developed language skills (Taylor et al., 2023).

According to Rahn et al. (2023), access to reading material at home is critical for literacy development skills, such as vocabulary and oral language, that must be acquired before reading comprehension is obtained. Children from poor homes often lack access to books because their parents cannot afford them (Crosh et al., 2024). Not only do students from poor families lack access to books within their homes, but there is also limited access to public libraries in poor neighborhoods, resulting in a need for interventions to improve access to literacy resources in low-income neighborhoods (Crosh et al., 2024). Some parents of young children may not be readers themselves and may not model reading and writing for their children at home (Rahn et al., 2023). In addition to this, barriers such as limited time and a lack of proficiency in educational materials keep parents from becoming involved in their child's education; these barriers are meaningful because the absence of parental involvement is associated with academic struggles among students (Perrigo et al., 2022). Family engagement in early literacy improves reading ability, but engagement with books may be lacking in many low-income families (Gross et al., 2020).

In addition, childcare centers and elementary schools in impoverished neighborhoods may need more reading materials to meet the needs of children enrolled in

the programs (Workman, 2022). Public schools are funded through local property taxes, resulting in a larger number of available academic resources and a greater number of qualified teachers in areas where higher income families live (Workman, 2022). Unaccompanied immigrant children who are released from detention centers typically have had limited access to academic resources (López & Giraldo-Santiago, 2023). Books are not provided to children in detention centers, and the schools these children attend often lack materials needed to provide these students with a quality education (López & Giraldo-Santiago, 2023). Minimal access to books for children in low-income families and neighborhoods, uneven access to technology, and lack of encouragement to read negatively affect children's reading success, not only in the United States but in numerous countries worldwide (Azevedo et al., 2021)

In addition to lacking materials, children in impoverished communities typically have fewer effective teachers at their schools when compared to students from high income communities (Isenberg et al., 2021). More novice teachers are assigned to low-income public schools compared to high income schools, and these teachers are typically less effective than veteran teachers (Isenberg et al., 2021). It is also important to consider the lack of research focused on education in rural areas; Thier et al. (2021) noted that more research has been conducted on education in suburban and urban areas rather than on education in rural locations. This means the depth of the reading problem among children in rural areas, such as in the study schools, may be understated in the literature.

Parents of young children in low-income situations often do not have the resources, time, education, or communication skills to be actively involved in their

child's learning (Kelty & Wakabayashi, 2020). Factors such as financial strain, low educational attainment, cultural differences, community barriers, and shortage of time often impede a low-income parent's ability to take part in their child's education, which is critical for any student's academic success (Kelty & Wakabayashi, 2020). Low income parents often face notable financial distress, resulting in stress that depletes the parent's energy level, making it challenging for these individuals to engage meaningfully with their child (Spuhler et al., 2022). In addition to financial stress, emotional and social challenges also deplete low income parent's energy, which hinders their ability to engage with their child (Spuhler et al., 2022). Gay et al. (2020) stated that low-income families are less likely to be involved in their children's schooling due to time constraints. Low-income parents often do not have a consistent work schedule or may work shifts into the evening and overnight hours, which affects their availability to support their child's learning at home (Gay et al., 2020). Zachry et al. (2019) agreed that parents with low incomes often work multiple jobs and take extra shifts that require irregular hours, resulting in a negative impact on the parent's ability to take part in educational activities. Consequently, many children from low-income households are not equipped with the prerequisite skills needed to be successful in school (Zachry et al., 2019).

Educators also face time constraints due to the workload they are faced with daily which includes fulfilling administrative duties, grading and assessment, attending professional development sessions, implementing classroom management strategies, providing social and emotional support for students, lesson planning and preparation, and providing effective classroom instruction (Tsai et al., 2023). These obligations result in

work overload (Tsai et al., 2023). Furthermore, educators in rural areas typically have higher stress levels than teachers in urban schools due to having larger class sizes with high poverty levels among students in those classes, which contributes to feeling overwhelmed by the needs of students and lack of adequate support (Edwards et al., 2024). This high stress can often result in a lack of energy among educators to give their students quality instruction and can lead to frustration, which contribute to the fact that high poverty school districts have the highest teacher turnover rate across the nation (Edwards et al., 2024).

Many early childhood educators, whose work is essential in children's preparation for formal schooling, are affected by their own problems of physical and emotional well-being (Fitzgibbon, 2022). Early childhood educators typically encounter poor working conditions in childcare centers and low wages across the profession, which negatively influence the quality of education early childhood teachers provide their students (Kwon et al., 2020). Early childhood working conditions that cause stress and anxiety are more common in poverty-stricken communities than in wealthier areas, resulting in less effective instruction for low-income students (Kwon et al., 2020). Even high-quality teachers, if working in low-income schools, often receive ineffective support and endure problematic work surroundings, which contribute to an inability to perform effectively when teaching students (Fitzgibbon, 2022).

Poverty has been found to adversely affect brain development, neural development, and cognitive functioning (Bhattarai & Smedema, 2023). Because poverty causes impairment of brain development in many areas, poverty often leads to learning

difficulties, behavioral concerns, and poor academic achievement (Bhattarai & Smedema, 2023). Such cognitive disabilities are often acquired in early childhood. For example, up to one third of children's cognitive deficits in poverty stricken neighborhoods are due to air pollution, which is higher in low-income neighborhoods than in areas where wealthier families live (Wodtke et al., 2022). Children who are born into poverty stricken homes often lack stimulation in their home environments, which commonly leads to developmental deficits that are difficult to reverse without strategic interventions (Attanasio et al., 2022). This lack of stimulation results in cognitive deficiencies, socioemotional deficiencies, delayed milestones, and long term consequences for these children, which contribute to the continuation of poverty (Attanasio et al., 2022). When poverty negatively affects cognitive development, the risk of difficulties in reading heightens (Galbally & Scharff, 2022). Poverty affects cognitive development and can stall a child's literacy development when entering school (Troller-Renfree et al., 2022).

Not only are children in impoverished neighborhoods more susceptible than other children to cognitive deficits, but they also have a lack of access to quality childcare (Yavorsky & Ruppanner, 2022). Childcare facilities in communities with a large vulnerable population face challenges regarding the availability of physical and virtual resources, including lack of trained staff, inefficient infrastructure, low levels of digital literacy, and insufficient government relief (Yavorsky & Ruppanner, 2022). According to Jin and Lee (2022), parents living in poverty or impoverished communities face a lack of accessibility and sustainability of childcare services. Children who live in poverty stricken homes often have limited access to formal childcare, resulting in reliance on informal childcare,

which often does not offer the same educational benefits as a structured childcare program (Jin & Lee, 2022). In addition, access is minimal for low-income families due to the costs of childcare, resulting in parents in poverty situations choosing to be unemployed and unable to support their families (Herbst, 2022). Also, many impoverished parents do not know how to examine childcare programs adequately, resulting in poor childcare selection choices (Herbst, 2022). Low socioeconomic status hinders children from having access to quality childcare programs and ultimately impedes their behavior and academic development, affecting these children several years later when entering kindergarten (Herbst, 2022).

The effect of children's socioeconomic status on their reading ability begins long before they start preschool, and attending preschool is often uncommon for students from low-income families (Buckingham et al., 2023). According to Liu (2024), students from wealthier families generally have higher academic achievement than students from lower-income households. At the same time, socioeconomic status is not the sole indicator of literacy achievement. Students from wealthy homes and neighborhoods may demonstrate difficulties with reading and other academic areas (Romeo et al., 2022) and many poor children demonstrate high achievement throughout their educational experience (Liu, 2024). Poverty is a compounding factor that affects children's reading experience and literacy skills development. However, factors affecting literacy achievement other than socioeconomic status should be considered, such as individual effort, support systems, access to resources, motivation, peer influence, role models, and language proficiency. (Liu, 2024). A few of these I will consider next.

Lack of English Proficiency

English language learners (ELLs) are at risk for academic failure due to their limited English language development (Dolean, 2021). In 2020, ELLs represented 10% of the student population in the United States (Hamilton et al., 2020), representing over 5 million students (Knight et al., 2022). ELLs often are immigrant children who face severe educational challenges because schools in their home countries may not have been equipped with the training or resources needed to give these students a quality education and serve them based on their unique needs (López & Giraldo-Santiago, 2023).

According to Knight et al. (2022), an achievement gap between ELL and non-ELL students began in 1998 and has increased over time. The increase in this achievement gap may be due to the adoption of Common Core Standards in the United States, which require an extensive knowledge of English (Knight et al., 2022). ELL students face numerous disadvantages throughout their educational experience, which impede their academic advancement, commonly resulting in students dropping out of school before graduating (Barkauskas, 2022). These barriers include difficulty in understanding instruction and completing lessons in English, inadequate professional interventions to support ELL students, standardized assessments inappropriate for use with ELL students, and minimal communication between parents and teacher because of the language barrier (Barkauskas, 2022). ELL students who demonstrate reading failure often have limited English vocabulary knowledge, difficulty with concept translation, and an inadequate grasp of English grammar (Knight et al., 2022).

The relationship between language skills and reading comprehension is well

established (Adams et al., 2020). Students who are not proficient in English take much longer to acquire reading skills compared to native English speaking students, which often results in a lack of motivation to read or frustration with reading (Zhang & Winke, 2024). According to Hamilton et al. (2020), lack of English language fluency creates ineffective communication with teachers and peers. ELL students face challenges that differ from those of their English-speaking peers, typically placing them behind these students in reading (Adams et al., 2020). According to Dolean (2021), ELL students often not only lack English language development but are also likely to live in low-income households, compounding their difficulty in learning to read and to succeed academically.

Lack of Motivation to Read

Interest and motivation to read and even motivation to teach students to read has declined among students and teachers in the United States since the early 2000s and contribute directly to reading failure in the United States (Webber et al., 2023). According to Barber and Klauda (2020), a lack of interest in reading and motivation to read as a leisure activity has contributed to reduced reading achievement. Not only does a student's motivation to read influence their academic achievement, but their teacher's motivation regarding instruction can also influence students' academic success (Huang et al., 2022). A teacher's motivation enhances a student's intrinsic motivation to read, commonly resulting in higher reading achievement (Huang et al., 2022). Hamilton et al. (2020) noted that motivation to learn results in confidence in one's ability to learn, which then causes students to participate actively in class work, resulting in academic growth.

According to Crosh et al. (2024), children motivated to participate in literacy activities are more likely to benefit from the activity than those who are engaged in reading. Students who are unmotivated to read typically read less frequently, resulting in poorer reading skills when compared to students who are motivated to read because these students actively engage with texts more frequently (Brandt et al., 2021). Brandt et al. (2021) reported that declines in motivation to read among students result in a decline in student reading scores, and emphasized the importance of motivation on reading proficiency.

Lack of motivation to read can be caused by numerous environmental factors, including inability to locate or identify reading material relevant to one's interests or culture, reading resources that are not readily accessible, lack of a place to read peacefully and comfortably, assigned reading material that is irrelevant to one's life or personal life experiences, and the absence of encouragement from a parent or teacher (Kheang et al., 2024). According to Burk and Hasbrouck (2023), students from low socioeconomic backgrounds and students from diverse cultures often have limited reading materials at home and receive minimal support from parents, resulting in a lack of motivation to read. In addition, instructional practices often are not implemented effectively by teachers, resulting in a lack of motivation to read among students (Burk & Hasbrouck, 2023). A lack of texts that are culturally relevant, specifically for minority groups in the United States, has resulted in decreased motivation to read among these groups (Lee, 2022). For example, students of color may be more motivated to read literature that reflects aspects of their culture, values, beliefs, and life experiences and may be less motivated to read material that is disconnected from their experiences (Jones

& Lynch, 2023). A lack in public schools of reading materials reflecting all cultures has exacerbated other factors that contribute to low reading engagement among students (Lee, 2022).

SSPs as a Tool to Improve Reading Outcomes

An SSP is a program that takes place during the summer months when regular school is not in session and is designed to support students academically during these months of school not being in session (Pyne et al., 2023). These programs are typically targeted toward students who struggle academically, helping these students maintain or improve their academic skills (Pyne et al., 2023). SSPs have been implemented in an attempt to reduce summer learning loss, which has been identified as a time when reading skills often decline (Matthews, 2021). According to Reed et al. (2020), many SSPs in the United States are also used to avoid retention of students in a particular grade level and attendance at an SSP is often required to prevent grade retention. Schwartz and Diliberti (2024) reported that 78% of the districts across the United States implemented SSPs in 2023 to help overcome the academic challenges that K-12 students presented following COVID-19 school closures in 2020.

According to Evans et al. (2023), the following components must be present for an SSP to be effective: high-quality reading instruction from trained educators, small class sizes, academic enrichment activities, and parental involvement. In addition, several curricular elements must be in place, including high-quality literacy experiences, targeting instruction, interdisciplinary approach, research-based programs, policy support, engaging curriculum and assessment, and progress monitoring (Christodoulou et

al., 2023). Schwartz and Diliberti (2024) noted an extensive amount preplanning must take place before an SSP is launched to develop academic instruction, create the curriculum, hire and train the appropriate personnel, set up bus routes so all students have access to the program, and ensure that food contracts have been secured for meal service. Schwartz and Diliberti found, however, that many school districts begin scheduling, programming, and hiring SSP staff just a month or two before an SSP is scheduled to begin. An effective SSP lasts at least 5 consecutive weeks and provides a minimum of 90 minutes of mathematics and 120 reading instruction daily, which exceeds the duration of SSPs in many school districts (Schwartz & Diliberti, 2024). SSP effectiveness also depends on student attendance; students must attend at least 75% of the program in order to receive enough instruction to result in improved academic performance (Christodoulou et al., 2023).

High quality reading instruction is an essential component of an SSP (Evans et al., 2023). According to Buckingham (2020), high quality reading instruction includes a wide variety of evidence-based strategies to improve students' academic and behavioral outcomes. The key components of high quality reading instruction include systematic phonics instruction, evidence based practices, a holistic literacy approach, adaptability and responsiveness, professional development for instructors, and attention to student and teacher engagement and motivation (Buckingham, 2020). McBreen and Savage (2020) stated that high quality instruction requires classroom management skills, engaging activities that promote active learning among the students, differentiation of instruction, effective assessment and feedback, clear goals and objectives, collaboration, and skillful

use of technology. This requires both excellent preplanning and dedicated teachers (Schwartz & Diliberti, 2024).

Academic enrichment activities in SSPs allow students to explore content beyond the required curriculum so students can identify their interests and develop their talents and skills in a variety of areas beyond the standard curriculum (Reis & Peters, 2020). Examples of enrichment activities include field trips, workshops, clubs, competitions, and fairs (Morton et al., 2021). Enrichment activities may also include arts and crafts, drama, and sports (Tam et al., 2023). Enrichment activities allow students to explore knowledge beyond the standard curriculum and assist students in developing behavior skills as well as social skills (Tam et al., 2023). Through these activities, students develop critical thinking and problem-solving skills and a love for learning (Morton et al., 2021). In addition, Ribeiro et al. (2021) noted that parent engagement is even more important when children are attending summer school than the regular school year because parents' involvement increases children's motivation to learn at a time, during the summer break, when children may be unlikely to feel motivated by academic activities. When parents are engaged in their child's academics, they can provide resources at home that reinforce skills taught in the SSP, resulting in improved academic levels (Ribeiro et al., 2021).

Some evidence indicated success of SSPs in reducing summer learning loss and positively affecting academic development. For example, Contesse et al. (2020) found that SSPs increase reading proficiency because they encourage students who are at risk for academic challenges the following school year to continue reading. SSPs that are implemented with primary school students from low socioeconomic backgrounds in the

United States enhance student achievement levels when teachers provided tiered support and effective instruction (Clark et al., 2021). Lynch et al. (2022) surveyed 37 studies and concluded that students who attended an SSP improved achievement outcomes significantly. Evans et al. (2023) stated that a 6-week SSP increased 55% of students' reading performance in the year 2020, with 25% of the students maintaining literacy skills, and 61% of the students' reading performance improving in the year 2021, with 26% maintaining literacy skills; also 89% of the students who attended the SSP stated they felt more motivated and engaged in academics after attending the SSP. In addition, students who were behind in reading tended to have the greatest growth in literacy development, often three times more than students on grade level (Evans et al., 2023). According to Schwartz and Diliberti (2024), elementary school students who received 25 hours of mathematics and 34 hours of reading instruction in an SSP outperformed students who did not attend the SSP on standardized assessments the following spring. Muir et al. (2024) reported that SSPs increase motivation among students when it comes to their education, improve standardized assessment scores, and cause the students who attend to be 1.5 times more likely to complete higher education in the future.

Other literature suggested that SSPs result in only minimal academic growth (Pennell, 2020). Pyne et al. (2023) found that attendance in an SSP had a minimal effect on standardized assessment scores in English language arts and that the behavioral effects of the SSP far outweighed the academic effects, particularly for low-income students. According to Fitz et al. (2025), not all SSPs positively influence student academic achievement, due to a variety of factors which include program design and quality,

program funding, targeted support, and individual student circumstances. For example, many states across the US do not support SSPs through investing in resources for these programs, which hinders the impact these programs can have on student achievement (Fitz et al., 2025). Schwartz and Diliberti (2024) noted that of the SSPs they reviewed in 2023, fewer than 20% met the minimum of 3 hours a day needed to improve student academic achievement and many applied ineffective instructional designs. Because minority students and students from low-income households typically experience more regression during the summer months than do other students, these are often the students the SSPs are designed to serve, but how instruction used in the SSPs is adjusted to meet the needs of this population has been minimally researched (Reed et al., 2020).

Summer school programs across the United States are typically funded through a combination of federal state and local resources; rarely do parents fund the SSP if the population is mostly disadvantaged students (Gordon & Reber, 2023). Funding available for SSPs varies widely from state to state and depends on each state's priorities and the sufficiency of local tax revenues within individual school districts (Gordon & Reber, 2023). Overall, current literature provides evidence that certain components and funding must be available and implemented in order for an SSP to be run successfully, but that SSPs that are well organized, fully funded, and staffed by dedicated teachers may improve reading proficiency among low-income students.

Summary and Conclusion

Reading failure continues to exacerbate an achievement gap in reading among minority and low-income students with regards to achievement of wealthier White

students. (Shockley, 2021). This reading failure is due to numerous factors, including limited language development, poverty, lack of access to resources and reading material in schools and at home, inadequate instruction, lack of student interest in reading, lack of access to high quality childcare facilities, and the absence of teacher motivation for reading instruction. As a result of this prevalent reading problem in the United States, numerous schools have implemented SSPs, but findings have been mixed as to whether these programs improve the reading proficiency of those who attend (Matthews, 2021; Pennell, 2020). Many elements must be in place for an SSP to be effective, but it can be difficult for school systems to implement SSPs because of inadequate funding and problems with teacher recruitment (Gordon & Reber, 2023; Liu et al., 2020). In this study I examined whether attending an SSP affected reading proficiency according to standardized test data of third grade students who attended an SSP in the summer following their second grade year. In Chapter 3, I describe the method by which I conducted this study and analyzed the data.

Chapter 3: Research Method

The purpose of this quantitative study was to compare reading standardized test scores of third grade students who participated in an SSP in the summer following second grade with those of students who did not. In this section, I describe the variables present in this study and address resource and apparent item constraints. I also describe how this design was appropriate and consistent with what was needed to improve knowledge in the field of inquiry. The sampling strategy, target population, population size and recruitment of participants, how the sample size are described, as well as a wealth of information regarding the intervention, the SSP. In this chapter, I present how the research question was answered through data collection and analysis procedures while outlining the design for testing the hypothesis and the rationale for utilizing this design.

Research Design and Rationale

The independent variable was students' participation in an SSP the summer following their second grade school year, and the dependent variable was the standardized reading scores of third grade students. The research design was quasi-experimental because existing data were used to determine the relationship between SSP participation of second-grade students and the standardized reading test scores of those same students in third grade (see Butin, 2010). A-experimental design was an appropriate choice because this study involved groups in which membership was self-selected, in that participants chose but were not assigned to attend an SSP (see Burkholder et al., 2020). Because random assignment was unsuitable for this study, a quasi-experimental design was the best approach (see Shadish, 2013). This design was appropriate

because it allowed the investigation of the relationship between SSP attendance and reading proficiency to be explored and answer the research question: Is there a difference in test scores among the group that attended the SSP and the group that did not? This research design connected to the research question because such a design is applicable when a treatment, in this study the SSP, is manipulated to examine its effect without random assignment (Cham, 2022). By manipulating the SSP, the effects of the SSP could be determined to answer the research question for this study and identify whether there was a difference in reading scores based on SSP attendance. This design was best because it offered a flexible approach to causal inference, so the effects of the SSP intervention could be investigated in a natural world setting, in this case, a public school district.

One identified constraint for this study was the time between the treatment and the data used to answer the study's research question. This time gap threatened internal validity because unaccounted factors that were not the identified treatment could have affected the dependent variable. The differences in test results of students who attended or did not attend the SSP were not available until the spring of the following school year; therefore, nearly 8 months passed after the treatment before the dependent variable was analyzed to answer the research question. This gap in time meant there was potential for an additional determinant variable that was not accounted for to have influenced results in the study (see Shen & Lai, 2019). Because this gap in time was part of the conduct of elementary school programming and assessment, and any effect of SSP attendance, by school district design, could not be determined sooner than 8 months from SSP

completion, this time constraint reflected the real-world situation by which school district administrators make decisions about the value of SSPs. The time gap was regrettable from an experimental perspective, but reflected the way things are from the perspective of public school organization.

Quasi-experimental designs offer a practical way to evaluate educational interventions to improve educational practices and outcomes for elementary school children (Ribeiro et al., 2021). Traditional experiments are impractical in this setting, and the identified design allowed the research question to be investigated in a real-world context where randomization was impossible (see Shelley, 2013). This study advanced knowledge within early childhood education by determining the effectiveness of a summer learning program in reducing the prevalence of reading failure.

Methodology

Population

The target population for this study was students who had finished second grade and had entered third grade in the fall in the public school system selected within the target state. One group of this population had attended an SSP over the summer before entering third grade, and some had not. All study participants attended a public school in this study's target county and state for both second and third grade. The data points included test scores and SSP attendance information from 223 participants who attended three different public schools within the same school system. All the students in these schools received free lunch, and the schools were designated Title 1 schools.

Sampling and Sampling Procedures

The sampling strategy employed in this study was nonprobability sampling, also known as nonrandom sampling. In this case, the probability of selection was unknown, and members of the population did not have an equal chance of being selected (see Wagner, 2020). The type of nonprobability sampling used was purposive sampling, a strategic and intentional method that focuses on a specific interest to efficiently answer this study's research question (see Hossan et al., 2023). In this case, the sampling technique strategically focused on data necessary to test the effectiveness of an SSP in mitigating low reading proficiency.

Purposive sampling was needed for this study because the sample was selected for a particular purpose, so the needs of the study could be met (see Wagner, 2020). For the needs of this study to be met, data included only students from whom achievement test scores were collected at the end of third grade. This data set was informed by a second data set, identifying students in third grade who were eligible to attend an SSP during the summer following second grade. The achievement score data of SSP eligible students was subdivided into two groups: students who experienced this study's intervention, an SSP, and students who did not. Because the criterion of SSP experience was required to answer the study's research question, the selection of participants could not be determined by chance (see Wagner, 2020). Also, purposive sampling permitted me to select data for this study only from the three participating Title I schools with low reading proficiency levels according to standardized assessment data within the focus district of the study.

Purposive sampling was used to delimit data to include Title 1 public school enrollment, third grade achievement test scores, eligibility to participate in an SSP, and SSP attendance. Excluded were data from students who did not attend Title I schools in the second and third grades, who did not participate in achievement testing at the end of third grade, or who were ineligible to participate in an SSP in the summer following the second grade year. This sample was also limited to three elementary schools within the target district because low proficiency in reading on standardized assessments was required. Therefore, this excluded some students who attended elementary schools within the district and were not selected for this study. Data criteria did not include specific reading levels of participants, or any demonstrated level of academic achievement.

The sample size was determined based on assessment data available from the three participating Title I elementary schools in the target district. There were 223 data points in this study according to the number of third graders who took the standardized assessment in the Spring of 2024. These 223 data points fell into two groups, one group consisting of students who did experience the SSP treatment in the summer following the second grade year and one group of students who did not. The number of data points in the control group of students who did not attend an SSP was 177 and the data points in the experimental group was 46. G*Power analysis suggested a minimum of 64 participants were needed in each group to achieve statistical significance at the 0.5 level of confidence, meaning that the experimental group was short of this target.

Treatment

The SSP provided to students in the three participating schools in the target

district for this study was the intervention or treatment of interest in this study. Information about the SSP in place at the time when archival data were created was gathered from school district internal documents and reports; sources are not named to protect confidentiality. These programs were developed in the target school system with the goal of improving the reading proficiency of students across the district. More recently, the system has implemented a RACE to Learn program, which provides students with remediation, acceleration, credit recovery, and enrichment. This program was in place when third graders took the assessment and when second graders attended the SSP. In some instances, the treatment of attending the SSP was required for students to attend to be promoted to the next grade level, however this was not always the case. There were no requirements or payments needed from students to enter the program, and transportation to and from the SSP was provided. There were no academic requirements to enter, however the focus of this intervention was to remediate and intervene on struggling students' behalf. The student to teacher ratio was on average 15 to 1 and virtual learning was not offered; all learning and teaching took place in person within the classroom. To provide instruction during the SSP, all teachers were certified educators with a degree in Early Childhood Education or had completed the Teacher Assessment on Performance Standards program. The SSP in this county was designed by the school district and was the same throughout all elementary schools within the system. Reading and mathematics were the only two subjects taught in the program, and the teachers were required to review skills students should have developed previously, according to state standards, through direct instruction. The treatment occurred from May, 30 through June

29, 2024, with 3.5 hours of mathematics and reading instruction each day, indicating that approximately 2 hours a day focused on reading instruction. This totaled 5 weeks and roughly 44 hours of reading instruction. This instruction included reading fluency and comprehension practice, phonics instruction and phoneme graphic mapping, as well as time on the Read 180 intervention computer-based learning platform each day. Student work on the Read 180 platform was only part of this reading intervention plan, and direct instruction from the teacher in the room was what the students experienced during the majority of the treatment. Students were engaged in the Read 180 Program 20 minutes a day.

Archival Data

Data I used were created by a public school district in one state in the southeastern United States. There were no academic requirements or costs for enrollment in the district, including in any of the three participating schools. It was the policy in the district that all students who were actively enrolled in the public schools sit for the year end tests in third grade, which included those whose data were selected for this study. All students who attend the selected schools within the target district, whether they started at the beginning or middle of the year or attended the SSP, were required to take the state assessment in the spring of third grade year. SSP procedures the school district used to select students for treatment participation included only that parents fill out an SSP permission form. Any student who was enrolled in the selected school during their second grade year could attend the SSP program the following summer. The only requirement from the district was for their parents to complete the appropriate paperwork.

There was no cost or academic qualification, however, there were specific instances where attendance of the SSP was required for certain students to be placed in the third grade. However, the parent still could decide whether or not their child attended. This program could not be mandated by any means. As long as the student was enrolled in the selected school, the parent or guardian was the one who decided if a child participated in the SSP, not the teacher or school district.

To access data needed in this study, permission from district administrators was requested from the administrator of each school in order to obtain test score data for each student. Once permission was granted, names of SSP participants were matched to their achievement score data; this set of names formed the experimental group. Achievement score data from the remaining students who did not attend the SSP formed the control group. After all participant scores and SSP participation were accessed, these data were exported to IBM SPSS for analysis.

Instrumentation and Operationalization of Construct

The assessment data that were analyzed to answer the question for this research wee the scores of third grade students in reading on the milestone assessment required in the target state. This assessment was developed and published by the target state's Department of Education in the 2014-2015 academic school year. This assessment was selected as the established instrument for this study because the reading proficiency level of students is the prevailing issue in this study, and proficiency levels of students each school year throughout the study state are determined by the data collected from standardized assessments, according to the Department of Education. The data used to

calculate the percentage of students reading below proficiency in the study state and school district were determined based on results from the state's milestone assessment each spring. This assessment determined whether students were identified as reading below proficiency or above proficiency based on their current grade level requirements. In addition to determining reading proficiency, the results from this assessment were also used to measure the quality of educational opportunities provided to students throughout the state, as described by the Department of Education in the target state. These factors justify the use of these assessment data as appropriate for use in this study as the dependent variable.

At the time of this study, this milestone assessment instrument had been used since the 2014-2015 school year and had been administered to all students in grades third through twelfth grades enrolled in public schools across the target state, according to the state's Department of Education. The milestones assessment instrument assessed students on the common core state standards developed by the state's Department of Education for that grade level to determine whether the students have mastered these standards and are prepared for the next grade level. This assessment was used to assess student achievement in mathematics, reading, science, and social studies, depending on the grade level. For this particular study, the data retrieved from the milestones assessment that were analyzed included only the reading proficiency levels of students in third grade that were enrolled in the target schools during spring of 2024.

Reading proficiency was determined depending on the Lexile level of the student's scores on the assessment. A Lexile level measures a text's complexity and a

reader's ability (Hiebert & Tortorelli, 2022). It is expressed as a number followed by an L, which is used to identify the difficulty of the text and the ability of the individual to read the text accurately (Hiebert & Tortorelli, 2022). Lexile levels are used by educators to identify reading material that is challenging but not frustrating for students and to improve their reading proficiency (Hiebert & Tortorelli, 2022). Lexile levels are determined by examining the length of sentences throughout a text and the frequency of words (Hiebert & Tortorelli, 2022). Third grade students who score at or above a Lexile level of 520, according to the milestone assessment results, are considered on or above reading proficiency, whereas students who score below Lexile 520 are classified as reading under proficiency. The milestone assessment has four performance levels: beginning learner, developing learner, proficient learner, and distinguished learner, as described by the state's Department of Education. Any student who is a beginning or developing learner is not considered to be reading proficiently. The reading and vocabulary section of this assessment includes 32 questions composed of selected response, technology enhanced items, evidence based selected response, and constructed response, according to the state's Department of Education. Sixty percent of the passages that form the basis for test items in the assessment are literary passages and 40% are informational. The scale scores the students receive are based on the number of questions answered correctly, and this score is then translated into a reading Lexile level, which is used to determine whether the student can read proficiently both literary and informational texts. In short, these assessment results determine a student's Lexile, and then they are placed in the reading status designation of beginning learner, developing

learner, proficient learner, or distinguished learner.

The state's milestones assessment determined whether a student had mastered the content standards for the grade level he or she was currently enrolled. A technical advisory committee (TAC) is required to review and evaluate the system's validity, fairness, and comparability three times a year, according to the state's Department of Education. After doing this, the TAC gives feedback, and any needed adjustments are made to the assessment by the Department of Education before administering this assessment again. This ensures the validity of this assessment. According to the state's Department of Education, the TAC is an independent group of individuals who are nationally recognized evaluating experts who have been summoned to provide an unbiased perspective of all questions and measurement systems. To ensure reliability and validity, the TAC identifies evidence following the professional testing standards published by standards for education and psychological testing. The TAC provides feedback to the state on the following elements of this assessment: design and development, administration and scoring, psychometric analysis, and reporting. The dependent variable in this study, the target state's milestone assessment, was a valid and reliable measurement system to determine whether scores of students who attended an SSP, the intervention for this study, differed from those who did not attend the SSP.

The independent variable, participation in the target district's SSP, was recorded daily by the SSP teachers as attendance records and kept on file. As the SSP concluded, the attendance records were analyzed, and students who participated in 60% or more of the sessions were considered to have completed the SSP. These are the students whose

achievement test scores were included when analyzing scores of students who received the treatment, which was the SSP. Al students who attend 60% or more of the SSP sessions were in the experimental group for this study. The student considered for the treatment part of this student attended at least 18 days of the school SSP.

Data Analysis Plan

The software used to analyze the data collected in this study was SPSS statistics software. Before uploading data to SPSS, I applied data cleaning and screening procedures to ensure that all data relevant to SSP participation were systematically reviewed, and that errors, inconsistencies, extreme outliers, and missing values were identified and taken out of consideration or further investigated as needed. For example, summer school attendance records were examined, and any students who did not attend a minimum of 18 days were not included in the experimental group that experienced the treatment but were moved to the control group if applicable. In addition to this, any duplicates were addressed because there was a possibility that students who attended the SSP could be documented as attending more than once. Therefore, deleting possible duplicates was a strategy to keep the data clean. Missing values and logical errors were identified, including enrollment anomalies, incorrect names, incorrect attendance documentation, and so on. Any students who were documented as enrolled but had no attendance to prove enrollment were removed from the experimental group data set. Also, any errors identified in student attendance or enrollment information resulted in the students' score data being removed from the study entirely or from the group receiving the treatment, as applicable. The data collected regarding enrollment in the SSP were cleaned and screened to identify inconsistencies,

missing values, and duplicates to ensure the data were valid and reliable.

The data screening and cleaning procedures regarding the standardized test scores were similar. The data were screened for duplicates or missing values. For example, if a student accidentally had their reading achievement level documented twice, the duplicate was removed. Also, if any documentation of a test score was marked as incomplete, which is extremely rare, this data point was removed from the set to ensure reliability and validity. Lastly, extreme outliers were identified. For example, a data point displaying a perfect test score might be investigated further to ensure reliability and validity since a perfect or nearly perfect test score is uncommon, but not impossible. Another instance of extreme outliers that were further investigated during data screening included scoring that indicated a student missed all questions on the assessment. While many students commonly score poorly, it is uncommon for a student to miss every question. Both cases of extreme outliers were further investigated through testing documentation, which the test administrator turned in daily after each test session. This documentation included the time the test session began and ended, scratch work from all individual students, absentee and tardy lists, and notes about any abnormal behavior of students or disruptions that occurred during the test session. Based on the information gleaned from the investigation, any data point considered an extreme outlier was either deleted or kept in the data set.

The cofounding variable of attendance will be included because students who did not attend at least 60 percent of the SSP were not considered to be students that completed the program, which was the intervention for this study. Therefore, attendance was used to determine which student data points were placed in the treatment or non-treatment group.

One research question was addressed through statistical analysis: Is there a difference in reading standardized test scores of third grade students who participated in an SSP in the summer between second and third grade and scores of students who did not? The confounding variable of SSP attendance was included in this data set because many parents may have enrolled their child in the SSP, but the child did not subsequently attend the program. In addition, SSP records of the daily attendance of each student were also considered for data screening and cleaning purposes;, enrollment was not enough to claim that the student experienced the SSP treatment, however attending the SSP at least 18 of the 25 days it was in session was. Students who did not participate in at least 18 days of this session were not considered to have undergone the intervention and, therefore, were not included in the intervention group when calculating the mean test score of this group to compare differences. Eighteen days was the attendance target because this was what the school system required to consider that a student had completed the SSP.

The inferential statistics technique, analysis of variance (ANOVA), was used to test the significance of differences between the mean scores of the two groups, SSP participants and SSP non-participants, across one variable, which was the scores of students on the state's milestone assessment (see Wagner, 2020). ANOVA tested statistical significance using one categorical independent variable, participation in the SSP, in conjunction with a dependent variable, the milestone assessment score (see Burkholder et al., 2020.) The *F* statistic that emerged from the ANOVA test determined whether there was a statistical significance in the difference among the mean scores of each group (see Wagner, 2020). The following procedure was used to conduct the ANOVA test. First, the two variables

within the study were entered into the SPSS system; afterward, the data were entered and then analyzed; means compared, and a one-way ANOVA run. Once the *F* statistic had been calculated, its significant was determined, and the null hypothesis was considered. The level of significance that was used for this research study was 0.05 or 5 percent. The results were interpreted based on whether the *p*-value associated with the *F* statistic was less than 0.05. This is the standard level of significance used for a one-way ANOVA analysis (see Wagner, 2020). If the *p*-value associated with the *F* statistic was less than 0.05, then the null hypothesis, which stated that there was no difference in achievement scores in reading between third grade students who participated in an SSP and students who did not, was to be rejected.

The procedure that was used to test the statistical assumptions for the ANOVA was the Levene, and corrections were made accordingly. Levene assesses the homogeneity of variances and reduces the risk of a Type 1 error, a prevalent risk regarding statistical tests (Barnett et al., 2022). Using this method to test assumptions, Type 1error risks were minimized, and the chance of Type 1 error was reduced to not greater than the desired significance (see Barnett et al., 2022). Based on the context of this study and the research question being answered, this adjustment was appropriate (see Barnett et al., 2022).

Threats to Validity

External validity is the ability to consider the findings of a study applying to other situations, people, and settings (see Thomas, 2023). This research study's threats to external validity included population validity, attrition, situational validity, and history effects.

Concerning population validity, all students in this study were from low SES backgrounds, 95% were minority students, and attended Title I schools and received free and reduced lunch. Therefore, while this study's results can be generalized to 43% of U.S. public schools that are Title 1 with similar demographics and SES status, the results may not apply to schools composed chiefly of wealthy White students. This threat to validity was addressed by informing the reader of this information and by noting that the treatment, the SSP, may not produce the same results on standardized assessments for students in schools with a different demographic makeup. Further research is encouraged to determine the relationship between SSP attendance and standardized test scores in wealthier schools with a minimum amount of minority students. Also, schools composed of lower-income students and higher minority rates typically have a more significant number of students not reading proficiently (Buckingham et al., 2023). It is reasonable to have used schools with this composition for this research since it was based on low reading proficiency.

The second threat to external validity that was addressed is attrition. As the researcher, I had no control over SSP attendance or whether parents enrolled or disenrolled their students. Therefore, attendance was monitored closely by analyzing records kept daily when inputting data into the SPSS software to address this possibility. I assumed at the point before data had been collected that the number of participants who attended the SSP for 18 days was great enough to create statistical power. Historical effects also threatened external validity because while the design of the SSP had been described, it was impossible to ensure the SSP educators were present daily to teach the children. Lastly, situational factors affect external validity. It is impossible to see the design of other SSP

programs outside of this target district regarding the platform and computer-based programs, as well as time spent teaching reading. SSP designs should be considered when transferring these results to a different context. That is why the design of this SSP program was explained in detail previously and should be compared to SSP designs in other contexts before generalizing.

A further threat to validity was the small size of the experimental group. At 46 data points, this fell short of the required sample size of 64 as determined by G*Power analysis (see Cohen, 1988). The smaller than expected sample may have been caused by attendance of many students that was less that the necessary 18 days.

Ethical Procedures

I began by seeking permission from Walden University's IRB (04-01-25-1152554) and also sought permission to access archival data from the school district. The administrators of all target schools within this study were asked to sign a cooperative agreement because these individuals were organizational partners. Before sending administrators the cooperative agreement, I secured a preliminary commitment via email from administrators to permit me to access the data. All cooperative agreements included relevant information about the research to ensure potential participants understood the purpose of the study. This was done to avoid deception and ensure all administrators knew the research procedure and goal. To avoid administrators misconstruing the study's objectives, I ensured the administrators felt comfortable asking questions to gain understanding or clear up misconceptions throughout the entire process of research. I was accessible throughout the research if needed and was sure administrators understood they

had the right to ask questions. Contact information was shared in the administrative cooperative agreement form. To avoid deception or therapeutic misconception, no information regarding this study's goal or procedure was kept secret from administrators.

No incentive was given to administrators gain their cooperation. If an administrators denied permission, they were not asked again. Ensuring individuals were only asked for permission once reduced the risk of pressure or undue influence. Also, students' names and test scores and the names and location of the schools have not been and will not be shared with anyone other than myself and members of my dissertation committee. This will ensure privacy and confidentiality. All data will be kept confidential. Students will be identified in study documents as S1, S2, S3, and so on, rather than by student names. Ensuring student names do not appear in any study files or in the final dissertation will ensure that no student scores are made public.

Student test score data will be secure and protected through consistent software updates being completed on the device used to run the ANOVA. These data were backed up regularly throughout the research process. I refrained from storing this data over any unsecured networks. Antivirus software and malware protection was installed on my device before using SPSS software to run the ANOVA. Printed standardized test scores of students were stored in a personal filing cabinet that will remain locked. I am the only individual who has access to these files. The data gleaned from these scores was filed separately. After I gained access to the printed scores with student identification, the data were anonymized before running the ANOVA in SPSS on my device. Throughout the data collection process, I adhered to data privacy laws and regulations regarding student

test scores as defined by the Family Educational Rights and Privacy Act (FERPA).

The following conflicts of interest for this study were monitored to ensure transparency and allow for appropriate mitigation strategies. First, I conducted this research within my workplace, and had professional relationships with some individuals who took part in this study and with individuals who taught the SSP, the treatment for this study. One of the target schools used for this study is where I was employed at the time of the study, which means the environment where the data were collected was my work environment. Because this participating school employed me, some relationships had been developed with students and educators involved in this study process. I ensured that research project procedures or data collected during this process were not discussed with any individuals within the work environment at any time.

The methodology described was designed to address concerns while adhering to ethical guidelines. Power differentials were not of concern regarding this research because I had no control over how students performed on this assessment, nor was I involved in the design of the treatment the students received. I also did not participate in the design of the SSPs offered by the target schools. Additionally, I did not provide the intervention for this study or assess any of the participants. Lastly, I did not participate in the standardized assessment design or the students' scoring. I did not influence the design of the test students take to determine reading proficiency levels, the scores of the students, or the intervention provided to the treatment group. These explanations demonstrate lack of power imbalance within this study.

Summary

This study focused on the reading proficiency of a target population, including students who had finished second grade and subsequently entered third grade. The data collected were used to determine whether there was a difference in reading proficiency levels between students who attended an SSP and students who did not, according to the standardized test scores accessed. The test data collected from this standardized assessment were analyzed through an ANOVA test via SPSS statistics software to answer the question for this study. The inferential statistics technique, ANOVA, was used to determine the differences between the means of two group test scores: one group of students who attended the SSP and one group of students who did not. In Chapter 4, I describe the data collection process in greater depth and the fidelity of the intervention within this study. The results from the ANOVA are shared and discussed in Chapter 4. These results determined whether there was a statistically significant difference in reading standardized test scores of third grade students who participated in an SSP in the summer between second and third grade and scores of students who did not, which is the question this research sought to answer.

Chapter 4: Results

The purpose of this quantitative study was to compare reading standardized test scores of third grade students who participated in an SSP in the summer following second grade with those of students who did not. The research question was, “Is there a difference in reading standardized test scores of third grade students who participated in an SSP in the summer between second and third grade and scores of students who did not?” The answer to this question determined whether the null hypothesis, which stated there is a difference in the test scores of these two groups, was accepted or rejected. In this chapter, I discuss the timeline and data collection process that was conducted and also give information relevant to the demographic and descriptive characteristics of the sample used in this study. Lastly, the data and statistical descriptions gleaned from the one-way ANOVA, along with probability values, exact statistics, and effect sizes, are addressed and explained, with these data displayed within graphs and tables as needed. This chapter begins by discussing the data collection process that took place.

Data Collection

After permission was granted from the IRB on April 1, 2025, a DocuSign consent form was sent to four administrators from the chosen schools within the district. Three of the four administrators gave permission for access to all third grade reading scores, as well as a list of names of students who were enrolled in summer school in the summer of 2024. The permission was granted by administrators on April 5, 2025. The standardized test was administered to students by each school district on April 22, 2025. Three weeks after taking the assessment, all reading scores were processed by these schools, and on

May 22, 2025, I obtained all standardized assessment score data and names of those enrolled in summer school from the three cooperating administrators. Data collection took about 2 months from start to finish regarding obtaining IRB approval, administrative approval, and receiving the actual data sets. With only three school administrators sending scores of students, instead of the anticipated four, 223 data points were obtained, which was a slightly smaller number of data points collected than the expected 235. There were no other deviations from the data collection plan presented in Chapter 3.

These test scores obtained from students in third grade were generated by the standardized assessment students in the target state are required to take the Spring of their third grade year. The students from whom the data were gleaned all qualified to receive free lunch and attended Title 1 schools. Also, for the 5 consecutive years preceding this study, over half of the students in these schools failed to read proficiently according to the standardized assessment scores as displayed on the table in Chapter 1. According to district reports, the school district where these data were obtained enrolls a predominantly African American population, with many economically disadvantaged students (89.7%). The average age of the students who took the assessment used for this study was between 8 and 9 years old, with some outliers due to factors such as retention or early and late birthdays.

To answer the research question, students in one of the groups must have received the treatment, which was participation in an SSP in the summer prior to the third grade school year. Therefore, purposive sampling was used for this study because the sample was selected for a particular purpose (see Wagner, 2020). Because all of the

students in the treatment attended a minimum of 18 days of the SSP and received treatment, they adequately represented the population of interest. The control group, comprising students who did not attend an SSP, was significantly larger (n = 177) than the treatment group (n = 46). Given that 64 was the minimum data points needed in each group to achieve statistical significance, the results from this study should be interpreted with caution. No covariates were included in this study design.

Results

The mean averages of each data set for this study derived from the Lexile scores each student received on the standardized assessment taken in the Spring. According to the SSP software that was used to run the one-way ANOVA, the average Lexile level of participants who attended the SSP and received the treatment was 505.22, approximately 505L, and the average Lexile level of the participants who did not participate in the SSP was 529.24, approximately 529L. These averages of Lexiles are shown in Table 2 below.

Table 2

Descriptives of Lexile Levels from Standardized Test Scores

					95% Confidence Interval for Mean	
Group	*N*	Mean	Std. Deviation	Std. Error	Lower Bound	Upper Bound
Attended summer school	46	505.22	209.20	30.85	443.09	567.34
Did not attend summer school	177	529.24	196.67	14.78	500.06	558.41
Total	223	524.28	199.08	13.33	498.01	550.55

*Source: SPSS statistics software.

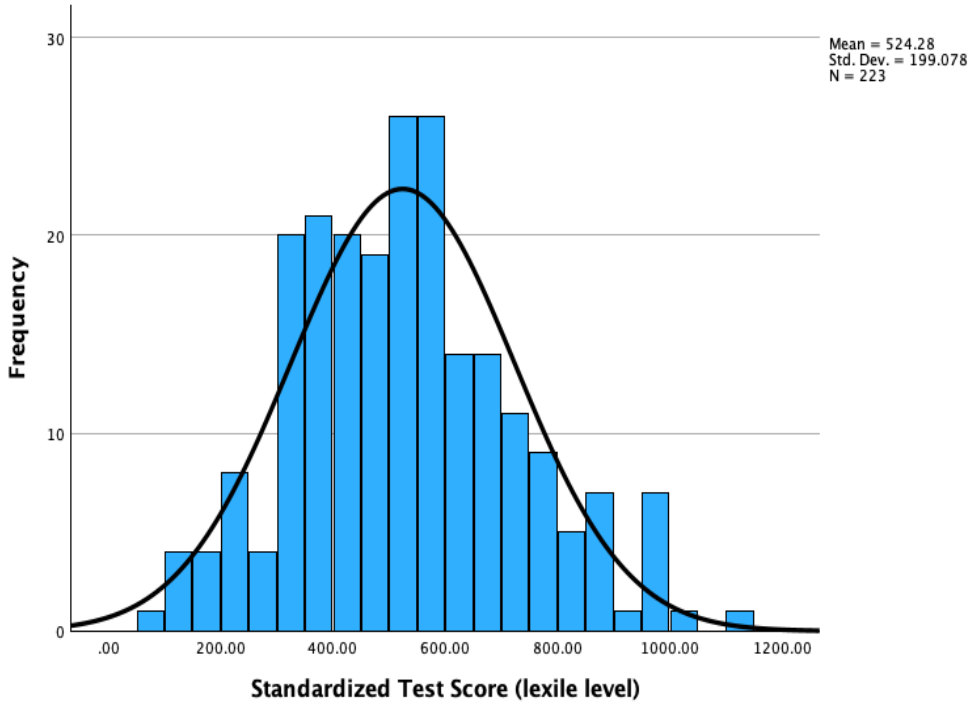
The participants who scored a minimal Lexile of 520 were considered reading proficiently by the end of the third grade. The average Lexile scores for the experimental group and control group differed by 24 Lexile points, indicating that the difference between the means of each group was not statistically significant. According to the effect sizes retrieved after running the one-way ANOVA, the effect size is also very small, with no statistical significance in the differences between the two groups. The null hypothesis, which stated there is no difference in the scores of these two groups, was accepted.

To evaluate the statistical assumptions appropriate to this study, a Histogram was created in SPSS to ensure the data were normally distributed. The results of the histogram displayed a bell-shaped curve, indicating that the data was normally distributed, as depicted in Figure 1. Of the 223 participants, the average Lexile level according to the

test results was 524.28: approximately 524. The standard deviation according to this histogram was 199.08, indicating that the data were widely spread from the mean, but did not directly indicate whether the data was normally distributed.

Figure 1

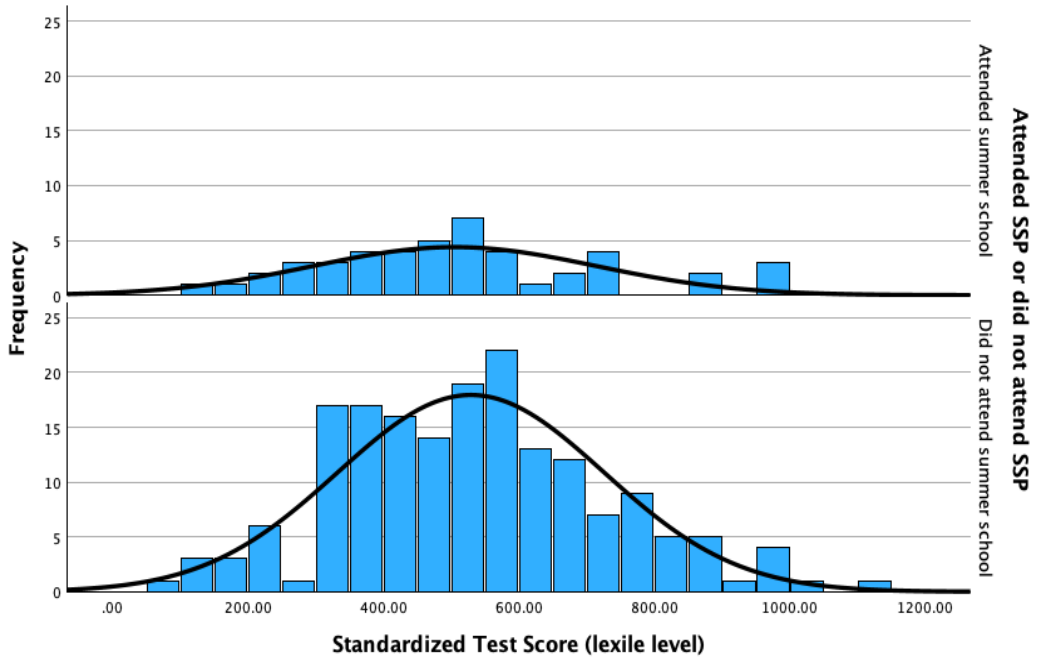
Histogram Data Distribution



An additional histogram was run to depict the data distribution of each group indicating that the Lexile levels of those who attended summer school were lower on average than those who did not attend summer school. Although this difference existed, it was not found to be statistically significant. This is illustrated in Figure 2. The data for both groups formed a bell-shaped curve on the histogram, indicating a symmetric or normal distribution.

Figure 2

Histogram Data Distribution by Group



An additional statistical assumption associated with this study was data independence. I ensured that the two groups for this study were independent of one another and that each participant was labeled as either one group or the other in the dataset, never both groups. Participants were labeled in number order when they entered the SPSS to ensure anonymity, and I ensured that no numbers were used more than once when entering these into the SPSS software as participant IDs. Also, the category that defined each of the groups was very specific and clearly defined during this research process. The last assumption that was associated with this research was equal population variances. A Levene's Test was used to assess the homogeneity of variances. The mean statistic of 0.29, according to Levene's Test, indicated that the variance in the two groups

was statistically significant, and this was taken into consideration when interpreting the results of the ANOVA. All domains, including mean, median, and mode, in the Levene's Test had a significance greater than 0.05, meaning that the assumption of homogeneity of variance was likely met. This is displayed in Table 3.

Table 3

Levene's Test

		Levene Statistic	*df*1	*df*2	Sig.
Standardized Test Score (Lexile level)	Based on Mean	0.03	1	221.00	0.87
	Based on Median	0.04	1	221.00	0.85
	Based on Median and with adjusted *df*	0.04	1	219.90	0.85
	Based on trimmed mean	0.02	1	221.00	0.88

*Source: SPSS statistics software

The *F* statistic generated from the one-way ANOVA was .53, which is not less than 0.05, which indicated no statistical significance. The Eta Squared confidence intervals of .000 and .031 indicated that there was a small effect size, if any. There is even a possibility that the true effect size in the population could have been zero, meaning there was no real effect. In addition to this, with the other confidence intervals

having been negative at 95%, the true population effect size is likely to be negative. This information is displayed in Table 4.

Table 4

ANOVA Effect Sizes

		Point Estimate	95% Confidence Interval Lower	Upper
Standardized Test Score (Lexile level)	Eta-squared	.002	.000	.031
	Epsilon-squared	-.002	-.005	.027
	Omega-squared Fixed-effect	-.002	-.005	.027
	Omega-squared Random-effect	-.002	-.005	.027

a. Eta-squared and Epsilon-squared are estimated based on the fixed-effect model.
b. Negative but less biased estimates are retained, rather than being rounded to zero.

*Source: SPSS Software

The *p*-value gleaned from the one-way ANOVA was .47, which indicated that the null hypothesis should not be rejected but should be accepted. This information is presented in Table 5.

Table 5

Statistical Significance

	Sum of Squares	*df*	Mean Square	*F*	Sig.
Standardized Test Score (Lexile)					

Between Groups	21065.34	1	21065.34	0.53	0.47
Within Groups	8777269.86	221	39716.15		
Total	8798335.20	222			

*Source: SPSS statistics software

The research question of this study, which asked whether there was a difference in the scores of participants who did and did not attend the SSP, was answered. Based on the results of the one-way ANOVA, there was no statistically significant difference in the standardized test scores between participants who received the treatment and those who did not. Therefore, the null hypothesis, which stated that there is no difference in these scores, was accepted. Results from this study described the *p*-value gleaned from the one-way ANOVA was 0.47, indicating that there was no significant effect from the SSP on the standardized assessment scores of the participants who attended. There is a substantial possibility that the influence of the SSP was nonexistent, and the effect size could have even been zero. Based on the one-way ANOVA, there was only a 24-point difference in the Lexile means of each group, with students who did not attend the SSP having a Lexile average that was 24 points higher than those who participated in the SSP. Furthermore, the Lexile level students need to be considered proficient readers at the end of third grade is 520. The students who attended the SSP had an average Lexile level of 505, while those who did not participate in the SSP had an average Lexile level of 529. These results indicate that the students who received the treatment had a Lexile score below grade-level proficiency. In contrast, the students who did not receive the treatment

had a Lexile score nine points above grade-level proficiency.

It is important to remember that this difference between the groups was only 24 points, which is not considered statistically significant or notable (Smarter Balanced Assessment Consortium & MetaMetrics, Inc., 2023). Swartz et al. (2014) noted that a 24-point Lexile increase or decrease is a minor fluctuation that does not indicate a significant shift in reading ability. A typical error in measuring Lexile levels based on standardized assessments may fluctuate by 64 points, either increasing or decreasing (Swartz et al., 2014). Therefore, a 24 point Lexile change is well within the standard measurement of error. In addition, Swartz et al. (2014) also noted that a 24-point Lexile difference does not reflect fundamental changes in a student's reading ability and is commonly due to random variability or measurement error. More recent literature has noted that Lexile levels accurately reflect a student's reading ability and that these measures are psychometrically sound (Smarter Balanced Assessment Consortium & MetaMetrics, Inc., 2023). This literature also emphasized that educators should look beyond the 60 Lexile error margin to confirm substantial reading growth among students (Smarter Balanced Assessment Consortium & MetaMetrics, Inc., 2023). Once again, this 24-point difference is much less than the 60 Lexile error margin that educators should look beyond.

Based on the interpretation of these findings, the results from this study do not support the faucet theory, which posits that if the faucet of learning continues to flow then the learning gap between socioeconomic statuses should close. Because this research did not analyze the Lexile levels of the students before they attended the SSP, it is unknown whether there was statistically significant growth in individual students. For

example, just because the students who participated in the SSP achieved a low Lexile on the standardized test report does not necessarily mean that they did not improve their reading as a result of the SSP. There could have been significant growth due to the SSP; however, the average Lexile score was still 24 points lower than that of those who did not attend, which is within the standard error range noted previously. The gap in time between the SSP and the administration of the standardized assessment, as well as many other factors, could have contributed to the lack of statistically significant results in this study.

Summary

After running the appropriate tests through the SPSS software and analyzing the data presented in graphs and figures, I found that the answer to the research question proposed in this study is no, there was no significant difference in the third grade scores in spring of participants who did and did not receive the treatment for this study, which was participation in an SSP in the summer following second grade. The goal of the SSP is to improve students' reading proficiency, a problem that has persisted throughout the United States. However, according to the results presented in this study, no significant difference in scores can be expected when comparing groups based on summer school attendance. This raises the question of whether an SSP is sufficient in achieving the goal of keeping the faucet of learning flowing over the summer, particularly for students from lower-income homes who may have less access to learning resources during the summer months compared to those from higher-income backgrounds. In Chapter 5, I extend the findings of this research by comparing the results of this study with the literature

discussed in Chapter 2 and with the study's conceptual framework. Recommendations for future research based on the study findings and implications for practice are provided with the hope of promoting positive social change through reading development among young learners.

Chapter 5: Discussion, Conclusions, and Recommendations

The purpose of this quantitative study was to compare the reading standardized test scores of third grade students who participated in an SSP in the summer following second grade with those of students who did not. This study was conducted because, over the 5 years preceding this study, schools in the target district reported that more than half of the third grade students read below proficiency, as indicated by the Lexile level they achieved on spring standardized assessments following the third grade year. Therefore, SSPs in the summer following second grade were implemented to improve reading proficiency among struggling learners. The findings of this study did not reveal any significant difference in the scores between the two groups: participants who attended the SSP and those who did not. In this chapter, I will provide an interpretation of these findings, offer recommendations for further research, and discuss the implications drawn from this study. I will also describe limitations of the study that may have affected the results.

Interpretation of the Findings

The results of this study did not show any statistically significance between the mean Lexile scores of the control group and the experimental group, indicating that the treatment, which was the SSP, had no significant effect on the Lexile levels or reading proficiency of the students who attended the SSP in the summer following their second grade year. This is particularly important considering the high percentage of students reading below proficiency in the district where this study took place, as well as across the nation (Klages, 2020). The null hypothesis for this research study was accepted.

Findings from this study align directly with those of Strong and Anderson (2023), who noted minimal to modest growth in academic achievement among students who attended an SSP. Similarly, Pyne et al. (2023) also stated a minimal to modest positive impact of SSPs on students' academic performance. In contrast, Lynch et al. (2022 and McCombs et al. (2019) found a wealth of academic growth and development following SSP participation. Given the mixed results found throughout the literature, it was not surprising that there was no significant difference in the test scores of students who participated in the SSP and those who did not.

Although the findings were not surprising, they do raise concern, as the purpose of this SSP was to improve the reading proficiency of the participants, which was continually declining. Even more significantly, these results are notable because students who cannot read proficiently by the time they exit third grade are four times more likely to drop out of high school compared to those who do read proficiently by the end of third grade (Klages, 2020). Additionally, according to Pyne (2020), SSPs reduce the risk of students dropping out, improve academic performance, and enable students to develop effective work habits. It is possible that these benefits may have been the case for the participants in this SSP, even though they were third graders who were not yet proficient readers. These results suggest that the SSP itself may require further in-depth analysis.

The SSP used by the schools in this study can be compared to other successful programs to inform improvements that may enhance results for this particular SSP. According to McCombs et al. (2019), various factors, including the research basis for the program content, program logistics, educator training, the local context of the SSP, and

many more factors, can either positively or negatively influence the academic proficiency of students who attend. This highlighted the need to identify the distinct characteristics of this SSP in comparison to the SSPs that demonstrated academic improvement. According to Pyne (2023), many SSPs that have demonstrated growth in reading achievement were established to support students who were severely behind their peers academically. In contrast, the SSP used in this study was offered to all students, not just those who were academically struggling. Reed et al. (2020) noted that SSPs that were most successful in academic improvement used the program as a means for students to avoid retention. In contrast, the SSP in this study served this purpose for only a small number of participants. Additionally, Evans et al. (2023) suggested that successful SSPs require highly trained and qualified staff. This highlights the uncertainty surrounding the training of educators who taught in this SSP, as their training experiences were unknown. Enrichment activities offered in SSPs, which can include but are not limited to art, physical education, drama, experiments, STEM, field trips, clubs, and music, have been proven to improve students' critical thinking skills (Evans et al., 2023). The SSP for this study did not offer any of these enrichment experiences for the students who attended. Additionally, Schwartz and Diliberti (2024) indicated that small class sizes have a positive impact on student academic performance when attending an SSP, as larger class sizes often result in lower-quality instruction. The student-to-teacher ratio for this SSP was 15:1, which is considered a small class size (Edwards et al., 2024). Lastly, Ribierio et al. (2021) suggested that parent involvement is a crucial factor within an SSP, enabling the program to ensure students achieve academic gains. There was no direct parental

involvement in the SSP for this study.

The duration of an SSP and the time spent in preparation before the SSP commences affect its effectiveness. Schwartz and Diliberti (2024) suggested that for an SSP to be successful for participants, the program must be run for at least 5 weeks, with participants attending at least 75% of the sessions. Evans et al. (2023) reported that even greater academic gains occur if the program lasts a minimum of 6 consecutive weeks. These suggestions align with the duration and attendance level of the SSP for this study, which lasted 5 weeks; test scores were only retrieved for participants who attended at least 75% of the SSP sessions. Christodoulou et al. (2023) suggested that research-based programs and technology should be implemented within an SSP to achieve academic gains. This SSP offered Read 180, a research-based program designed to improve student reading proficiency. In addition to this, Schwartz and Diliberti (2024) noted that extensive preplanning and preparation are necessary for an SSP to be successful; however, the SSP for this study had only 2 days between the end of the regular school year and the program's start. This is a minimal amount of time for educators or administrators to prepare for SSP implementation.

According to Fitz et al. (2025), not all SSPS have a positive effect on student academics due to a lack of program quality. This program shared similar characteristics with programs that have promoted academic success, while also exhibiting some differences. In addition to similarities and differences, there were unknown factors, such as teacher qualifications and training, that may have influenced the results. While it is known that all educators who taught held a degree in early childhood or completed the

Teacher Assessment on Performance Standards program, the training and any additional qualifications these individuals hold are unknown. Similarities between this SSP and other successful programs include the duration of time, small class sizes, the implementation of research-based programs, and the use of technology. Contrastingly, the differences between this SSP and others that were successful outweigh the similarities, including a lack of enrichment activities, the absence of parent involvement, the SSP's primary purpose, and the minimal time spent preplanning and preparing prior to the SSP. Therefore, it could be claimed that if some of these components had been implemented in the SSP for this study, statistically significant results could have been demonstrated, and the Lexile average of those who attended the SSP could have been higher than that of the participants who did not. This leads to a discussion of the limitations throughout this study in the next section.

Limitations of the Study

It is essential to consider that the Lexile levels of the participants prior to attending the SSP were unknown, making it unclear how much growth could have occurred for the SSP group, because the reading proficiency level the participants had before treatment was not identified. In addition to this limitation, only three schools in the district participated, whereas administrators of four had originally agreed to participate. Although this may not have changed the results, it cannot be assumed that it would not have. It is essential to note that there were 14 elementary schools within this school district, and the data for this study were gathered from only three schools. If more schools had participated, there would have been more participants, and results could have shifted

or changed. In addition, the time that passed between the participants receiving the treatment and the standardized assessment was great, and it is unknown how instruction in the interim supported or hindered student reading progress. This suggests that numerous factors other than attendance or non-attendance in the SSP may have affected the Lexile levels of the students on the standardized assessment. Finally, the small size of the experimental group that did not achieve the level required by G*Power analysis calls into question the validity of the results. The limitations of this research have informed recommendations for future research regarding SSPs and student reading proficiency.

Recommendations

Because only three schools participated in this study, which represented 21% of the district's 14 schools, a larger sample should be used if a similar study were to be conducted in the future. A more accurate representation of this population would include at least 50% of the elementary schools. Gathering more information regarding the factors that may have influenced the standardized test scores between the SSP and the assessment is an additional recommendation for future research, given the considerable time elapsed between the treatment and the standardized test. For example, the qualifications and training of teachers during the school year could be examined, as well as the instruction they implemented regarding literacy.

In addition, the planning and implementation of the SSP suggests a wealth of factors that could be the basis of future studies. Research into the effect of open enrollment compared to enrollment that targets struggling students, the effect of enrichment activities in motivating students and increasing cognitive engagement, and

the value of parent involvement would help to design an SSP that might consistently generate statistically significant positive outcomes. How teachers are trained to teach in the SSP and are supported during the program, the curriculum elements and materials available for instruction, and the effectiveness of technology resources are all elements that may influence the success of an SSP. If the faucet theory is valid, then the mixed results from studies of the effectiveness of SSPs should be resolved through greater attention to program design.

Future research could evaluate the impact of SSPs on student reading by administering a posttest at the end of the SSP in June, which assigns a Lexile level to each student. Comparing the Lexile levels of students before and after the 5-week SSP would avoid having the limitation of numerous other factors, other than the treatment, affecting Lexile levels. Similarly, knowing the Lexile level of students prior to attendance in an SSP would provide information to compare individual student growth on the standardized assessment at the end of third grade. Although the results of this research were not statistically significant, the study still yields a wealth of knowledge that can inform future administrative decisions. These will be discussed in the next section.

Implications

The goal of the SSP featured in this study was to increase the consistently low reading proficiency among third grade students in the selected school district, as measured by an end-of-year standardized test. This SSP did not achieve this goal. Based on these results, there must be a change in the design of the SSP and reading instruction delivered in the SSP. One suggestion could be to extend the SSP to 6 weeks, as suggested

in the literature. Additionally, since a significant amount of time passed between the SSP and the assessment, administrators could assess the Lexile levels of students both before and after the SSP begins. These data could be used to evaluate whether reading instruction during the SSP works, and make adjustments to curriculum, teacher preparation, and instructional materials if needed.

Administrators should also consider the importance of fundamental critical thinking skills in reading, which could be developed through enrichment activities offered during the SSP. SSPs described in the literature included music, clubs, art classes, drama, and other experiences for participants that support cognitive development. Parents should be invited to visit the school during the SSP to volunteer, confer with their child's teacher, and participate in activities. Previous studies on SSPs have suggested that parent involvement and academic motivation often coincide, so making an effort to engage parents in the SSP could spark an interest in reading among students and motivate them to become proficient readers.

Finally, administrators should plan for teachers to engage in extensive planning before the start of the SSP. Educators in this district had only 2 days between the end of the school session and the start of the SSP to prepare for the SSP. In addition to this, administrators should be engaged partners with teachers in the planning, training, and implementation of the SSP, so understand precisely how educators plan their instruction in literacy and motivate students to become proficient readers. Administrators should also evaluate the extent of reading that occurs during an SSP and assess the validity and fidelity of reading instruction during the SSP and the extent to which reading is offered as

a positive experience for students. Analyzing what motivates students to read could determine how an SSP could change students' attitudes towards reading. Literacy is the foundation of all learning, and as educators, we must do everything possible to ensure that students receive instruction and opportunities to become proficient readers.

Conclusion

SSPs have been implemented across the nation for decades to keep the faucet of learning flowing, particularly for disadvantaged students. Despite these efforts, the academic gap between rich and poor students continues to widen, and literacy rates nationwide continue to decline. The problem that was the basis of this study was the fact that over 60% of the students who attended the focus schools in the target school district exited third grade reading under proficiency. To improve the low reading proficiency of students in the study district, an SSP was implemented; however, the extent to which this SSP made a difference in students' reading ability was never analyzed before this study. Therefore, this study aimed to investigate whether there was a difference in reading proficiency between students who attended the SSP and those who did not.

While the results did not confirm a difference in reading proficiency between students who attended and those who did not attend the SSP, this study did confirm that changes in program design are necessary and that these changes and actions could enable the SSP to meet the goal upon which it was founded. Students who end third grade unable to read on grade level are four times more likely to drop out of high school compared to those who did not. This puts these students at a significant disadvantage from this point forward, which is why the academic gap continues to rise across the

nation. Making necessary changes to this SSP could help keep students in school and support their ability to become fully functioning adults. Positive social change can result through reading development, by improving the lives of students who attend, helping students escape poverty, allowing them to advocate for themselves and gain independence in education, and enable them to pursue careers of their choice in the future. Making the appropriate changes to this SSP could have a monumental impact on changing lives. These changes are essential, as literacy is fundamental to functioning adequately in today's world.

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