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Does School Choice Guarantee Reading Success? An Investigation Into the Impact Of West Charter School District On the Reading Success of Third Graders

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AN INVESTIGATION INTO THE IMPACT OF

WEST CHARTER SCHOOL DISTRICT

ON THE READING SUCCESS

OF THIRD GRADERS

by

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Abstract

South Carolina's Charter School Act of 1996 was passed for the primary reason of improving education for the state. A part of this improvement would come by way of charter schools providing innovative ways of teaching and learning. In 2017 WCSD was established, in hopes of answering the call of the 1996 Charter School Act by providing innovative ways of educating students, thus improving public education in the state. Today, South Carolina's school system ranks 44th in the nation, out-performing only six other states, and there is no data proving or disproving the impact of WCSD on education. The purpose of this research is to investigate the impact of WCSD on the reading achievement of its third-grade students enrolled in three of its innovations: Vision School of Excellence PBL, Mauldin School of Excellence College Readiness and Virtual Academy of the State. The data for this study was collected from school year 2020-2021 SC READY ELA assessment results. Analyzing the overall reading achievement of these innovations will not only inform policy makers on the achievement of charter schools, but it will also provide data for parents to make informed decisions about what types of charter schools may best educate their children. This data is equally important to both charter schools and TPS leaders so they too can make informed decisions about their own instructional practices. The results of the study create an increased focus on the reading achievement of charter school students and further efforts to prepare all students for reading success.

Keywords: reading achievement, charter schools, project-based learning, college readiness, virtual schools, Read to Succeed

Dedication

"She was powerful not because she wasn't scared but because she went on so strongly despite the fear" Harper Lee

The completion of my doctoral degree is the product of the old saying, "it takes a village". Without the encouragement, guidance and support I received, this would not have been possible. To Sabien and Langston, you both have been the driving force behind any of my life's successes. All I ever wanted for you both was to have an exemplary example of a mother. My hope for you is that the attainment of this degree will remind you that hard work, perseverance, and dedication will pay off, even when you're faced with what seems to be insurmountable obstacles.

To my mother, Josephine, you taught me to be independent, tenacious, and diligent. Thank you for being an exemplary example of a mother and role model. To my father, William, I inherited your confidence and ability to be unbothered by the chaos around. These attributes enabled me to believe that I could do this and ignore the naysayers in my head. To my sister Yolanda, thank you for being my life-long best friend and believing in me. Your calls at the right (and wrong) times during this process provided much needed comic relief.

Finally, to my lover and friend, James, you have been with me throughout this process and were my loudest cheerleader. You encouraged me during self-doubt while reminding me that there was absolutely nothing that I could not achieve, including earning this degree. Thank you for being the "wind beneath my wings".

Acknowledgements

In 1996, when I was just 20 years old, I set a goal to earn my doctorate degree by the time I was 40. Here I am, six years pass that mark, and I have reached that goal. During the last four years, while on this journey, I have received an abundance of support, encouragement, and guidance. I would be remiss if I did not acknowledge those who were integral in ensuring that I completed this journey, as they were collectively responsible for pulling out the gold in me.

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To Ivy and Sam, WE DID IT! We took turns lifting either up and giving the pushes that we each needed at some time or another. I wish you both much success in your future endeavors!

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To my closest friends and extended family, thank you for being understanding when you called and I didn't answer, when you texted, and I didn't reply or when you wanted to hang out and I couldn't. I was really busy!

Finally, to the students and educators I have been so fortunate to work with over the past 20 years, I have learned a great deal from you that I have been able to apply to this journey. You are a large part of why I will be a lifelong learner!

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Chapter One

Background

Reading is, by far, one of the single most important skills a student will ever learn, as early performance indicators in reading have major implications for students' later academic success. There is much research examining the importance and long-term implications of reading achievement or the lack thereof. Birgiisdottir et al. (2020), in their research on the early predictors of first and fourth grade reading and math, discussed the contribution of early reading skills on math achievement. They reported on how below average phonological skills can impact math attainment as most math problems require decoding words as well as symbols. According to the research of Hernandez (2010), 75% of students who are poor readers during third grade, will continue to be poor readers when they reach high school. Additionally, these students are also less likely to graduate high school. Furthermore, 17% of third grade children who have below average reading skills, are less likely to graduate from high school on time. Lesnick et al. (2010) discussed the educational outcomes of third-grade students in their report to the Annie E. Casey Foundation. Based on their reporting, third-grade students who are above grade level in reading are more likely to attend college than those at or below grade level. Furthermore, the report claimed that third grade reading level is usually indicative of eighth grade reading levels.

Additionally, national reading achievement gives much reason for concern regarding the state of reading education, according to some research. For example, NAEP State Profiles (n.d.), report that only 34% of 4th graders nationally scored at or above NAEP proficiency in reading, while nine states and districts experienced lower

percentages of proficiency. Furthermore, these trends are similar with eighth grade students who experienced a 32% NAEP proficiency in reading, according to the same report. In the case of eighth graders, 13 states and districts scored lower than the national average. Barshay et al. (2021) discussed similar concerns in their reporting on the decline in reading skills post COVID-19. As a result of the pandemic, students in the U.S. lost the equivalent to 50% of reading instruction. Furthermore, states who ranked the highest in reading also experienced decline, such as Massachusetts, where students experienced a six-percentage point slide from 2019 to 2021. The report goes on to suggest that nearly 66% of U.S. students were not reading at grade level prior to 2020, mimicking the trend of years prior. In the spring of 2021, students in all grade levels scored three to six percentile points lower on Measures of Academic Progress (MAP) than they had in the year prior.

In a 2018 oral reading fluency (ORF) study, White et al. (2021) provided the findings regarding students whose scores on the NAEP reading assessment fell below basic. In addition to a little more than one third of fourth graders scoring below basic, more than half of African American students and about one half of Hispanic fourth graders earned scores below NAEP *Basic*. Of the 1.27 million fourth-grade students who performed below basic, nearly one third of them fell in the NAEP *Basic Low* category, which means these students not only read with less precision and speed, but also read with little or no expression, which is an indicator of poor comprehension.

As reading achievement relates to South Carolina, according to The South Carolina State Reading Plan (2021), in 2018, 37% of the state's kindergarteners demonstrated readiness on the Kindergarten Readiness Assessment (KRA). While this

percentage is higher than 2020's 27%, it is slightly lower than 2019's 39%. Except for 2020, South Carolina has experienced an upward trend in the percentage of its kindergarteners showing readiness. This trend is in line with KRA performance goals illustrated in Table 1, which is based on the goal of a three percent increase annually of students who demonstrate readiness.

Table 1

KRA Performance Goals

Year	Readiness Percentage Goal
2017-18	36 (Benchmark)
2022-23	51
2027-28	66
2032-33	81
2037-38	96

Source: Reading Plan and Proficiency Report (2021)

Regarding reading achievement for the primary grades, 43.7% of third graders and 43.4% of 4th graders met or exceeded grade level expectations on the ELA portion of the SC READY assessment in 2016 (State Scores by Grade Level, n.d.-a). In 2017, those percentages were slightly lower at 42.1% for third grade and 40.9% for 4th grade (State Scores by Grade Level, n.d.). South Carolina began to see improvement in the ELA gains between 2018 and 2022 except for 2020 during the COVID-19 pandemic. As reported by NAEP 2019 Reading State Snapshot Report Grade 4, (n.d.-b) in 2019, South Carolina fourth-grade students had an average reading score, as reported by Reading NAEP Achievement, of 216. This score was three points lower than the national average of

2019, lower than 25 other states but higher than four states. When examined for score gaps, these scores show black students scoring 31 points lower than their white counterparts while Hispanic students scored 19 points lower. Additionally, students who participated in the National School Lunch Program scored much lower than those who did not.

Reading proficiency does not only fall below national averages at the elementary level. Those same trends can be seen at the secondary level as well for South Carolina students. In 2019, the average Reading NAEP Achievement score for eighth grade students was 259. In addition to this score being three points lower than the nation's average, it was lower than 34 other states, higher than just five states, and had no significant difference to 12 other states' averages. When examining the score gaps for student groups, the average score for black students in South Carolina was 28 points lower than the scores of white students, with Hispanic students' average score being 17 points lower than white students. Students who were eligible for free or reduced lunch through the National School Lunch Program, received an average score which was 24 points lower than students who were not (NAEP 2019 Reading State Snapshot Report Grade 8, n.d.-a).

Regarding reading achievement in charter schools, this study sought to determine if charter school type effects reading achievement. This is an important subject to research since much rides on the reading achievement of students. Early advocates for charter schools promised five outcomes that would positively impact public education. Kolderie (1990) and Nathan (1996) predicted the passing of charter school laws would generate a reinvention in both public and private schools. This reinvention would provide

a larger number and variety of school choices for parents. Wohlstetter, Wenning, & Briggs (1995) thought the independence from local school districts, would allow charters to experience more autonomy and flexibility than TPS. The combination of autonomy and market competition was thought to make charter schools more innovative while allowing them to provide higher quality education than TPS (Arsen et al., 1999). Kolderie (1990) predicted charter schools would be more accountable than district-operated schools because charter schools had to meet the demands of parents, students, and funding agencies. Finally, Nathan (1996) suggested that because charter schools had more autonomy, provided innovation, and were held more accountable, student achievement would be improved along with parental and student satisfaction. Additionally, teachers would experience higher satisfaction, and empowerment. These improvements brought on by the adoption of charter school laws would thus improve overall public education.

As outlined in South Carolina's 1996 Charter school Act, one of charter schools' purposes is to "create new, innovative, and more flexible ways of educating children within the public school system" (Code of Laws - Title 59 - Chapter 40 - Charter Schools, n.d.). South Carolina's West Charter School District (WCSD) has 24 schools with enrollment of approximately 24,000 students in 10 innovations: College Readiness, Virtual, Project-Based Learning, Entrepreneurial, Core Knowledge, Global Competence, STEM, Classical, Montessori and Personalized Learning.

Several researchers have examined the impact of charter schools on a national level and have mixed findings. Some findings show positive impacts of charter schools, with others suggesting no impact. Griffith (2019) found in urban areas, where charter

schools make up a higher market share, black and Hispanic students experience notable achievement gains. The research of Chen and Harris (2021) show the entry of charter schools positively impacting district level outcomes for the TPS in the same area. Wang et al. (2019) report no significant differences in reading scores reported on the 2019 Reading State Snapshot report of 4th grade students' reading achievement in TPS and charter schools.

Additionally, much research has addressed the reading achievement of charter schools specifically based on school type. For example, McHugh & Stringfield (1999) and Walbert & Meyer (2004), both discuss studies completed on Core Knowledge Curriculum schools in Maryland and North Carolina, finding students enrolled in these schools showed higher achievement gains than their counterparts in matched TPS schools. Furthermore, Krowka et al. (2017) found No Excuses charter schools increased reading and math outcomes for their students also. Contrary to the above research findings however, Ahn (2016) found students enrolled in Ohio's virtual charter schools performed worse on state assessments than their TPS counterparts. Missing are the outcomes of charter districts employing multiple school types in educating elementary students.

Problem Statement

Past research does investigate the impact of charter schools by type; however, research regarding the impact of South Carolina charter schools on reading achievement is scant. More specifically, little research is available regarding the impact of WCSD charter innovations. To add to the body of knowledge which already exist regarding

reading achievement of students enrolled in charter school by type, this study will investigate the reading achievement of three innovations of WCSD.

Nature of the Study

While the original goal of charter schools is still relevant today, there are a number of questions to be addressed regarding the reading achievement of the students who attend WCSD and how this achievement differs by school type. Considering school type, the following research questions will be answered:

Research Questions

Question One. Does school innovation affect the reading achievement of third graders?

Question Two. What factors impact the differences between reading achievement scores of third graders as measured by the SC READY assessment between Virtual, Project-Based Learning, and College Readiness innovations?

Question Three. How are SC READY ELA performance scores of third graders different between Virtual, Project-Based Learning, and College Readiness elementary innovations?

A quantitative, causal-comparative research study was conducted to gather data to add to the existing body of knowledge surrounding the achievement of charter school students as well as the various innovations. Findings of this research may assist states in establishing charter school policies and assist districts with accountability measures. This research may also provide useful information for charter school authorizers in making decisions regarding the needs of their individual charter schools.

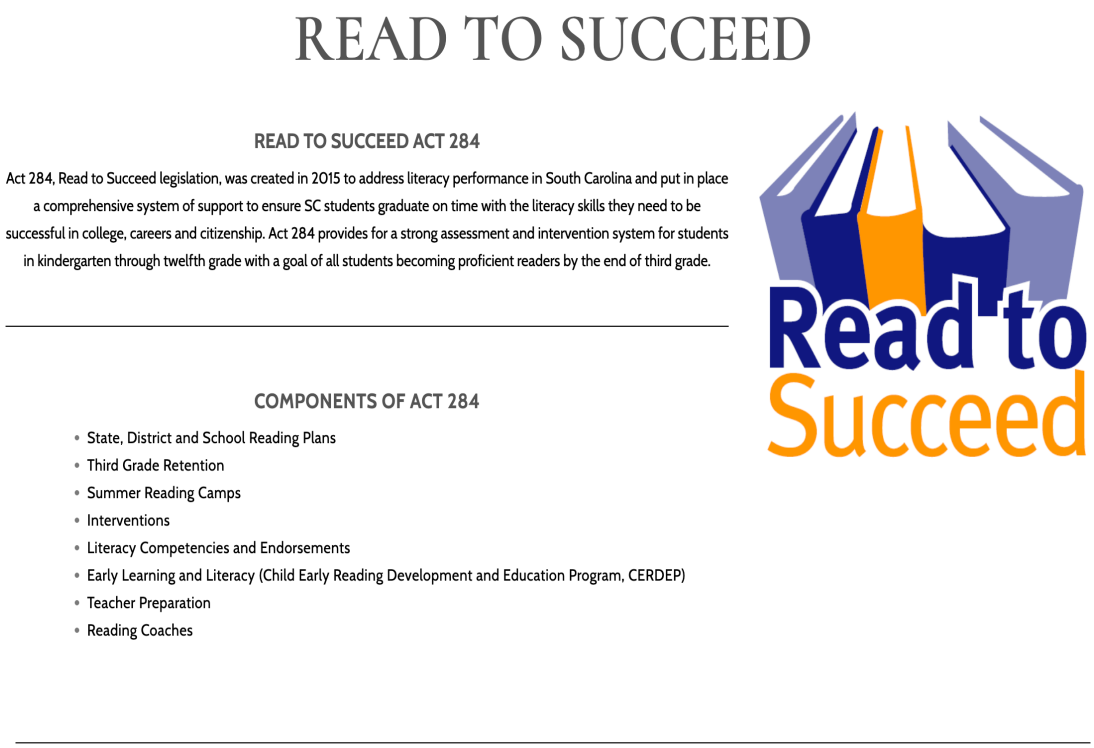
Conceptual Framework

Between 1992 and 2009, South Carolina had slight improvements in the reading proficiency of its fourth graders, while ranking in the bottom 10 states. During this time, the state implemented a number of initiatives to address the state's struggling readers. From 2000-2010, three reading initiatives were put into effect. SC Reading Initiative (SCRI), which focused on K-12 students, was in place from 2000-2009. Beginning in 2002 and ending in 2007, was SC READS, which focused on pre-kindergarten through third grade. Lastly, South Carolina Reading First (SCRF) which targeted kindergarten through fifth grade was in place from 2004-2010. While the state did experience gains from these initiatives, positive effects were only seen by those districts and schools which participated (South Carolina Department of Education, 2015).

In 2009, the SCDE and a literacy team of nine members representing the state helped to create a comprehensive literacy plan entitled *Literacy Matters Comprehensive Literacy Plan*, published in 2011 (South Carolina Department of Education, 2015). Within this plan, four key challenges were identified as having an impact on the reading proficiency of South Carolina students: low student achievement in reading and writing, literacy achievement gaps among demographic groups, summer reading achievement loss, and a limited number of exemplary literacy classrooms. It was the identification of these challenges and the lessons learned from the previous reading initiatives that informs the Read to Succeed legislation (South Carolina Department of Education, 2020). Read to Succeed Act 284, is referenced in Figure 1.

Figure 1

Read to Succeed Act 284



Note: From Charter Institute at Erskine. (n.d). Read to Succeed. Retrieved March 14, 2023, from https://erskinecharters.org/state-academic-programs/read-to-succeed/

Read to Succeed

The conceptual framework of this study originates from South Carolina's Read to Succeed legislation. In 2014, to improve literacy proficiency in South Carolina, and to improve student reading achievement for prekindergarten through twelfth grade students, the South Carolina General Assembly passed Act 284 (Read to Succeed). Read to Succeed was chosen as the conceptual framework for this study, as it is foundational to reading achievement in South Carolina. Read to Succeed is intended to ensure reading progress for all school age students. Moreover, this act was an attempt to close South

Carolina's achievement gap, while ensuring all high school graduates possessed the literacy skills necessary to be ready for college or career. Through Read to Succeed legislation, students in the state are prepared for college and career readiness and lifelong learning. Skills such as literacy and critical thinking are supported by teaching practices which align to the *Profile of the South Carolina Graduate* (South Carolina Department of Education, 2021). This profile is depicted in Figure 2.

Figure 2

Profile of The South Carolina Graduate

Note: From the SCDE. (2023). Profile of the South Carolina Graduate. Retrieved March 16, 2023, from https://sccompetes.org/profile-of-the-graduate-to-become-law/

Through the Read to Succeed Act, a variety of interventions were put in place by the newly established, state-level, Read to Succeed Office. For example, every district is required to develop an annual reading proficiency plan addressing the needs of all students in grades Prekindergarten through 12th grade. Also, districts must provide reading intervention programs including, but not limited to, summer reading camps. Additionally, all licensed K-12 teachers are required to complete additional training to receive Read to Succeed endorsement. South Carolina's Read to Succeed framework is comprehensive, as it includes eight components which are intended to target all educators and students in the state. These components include:

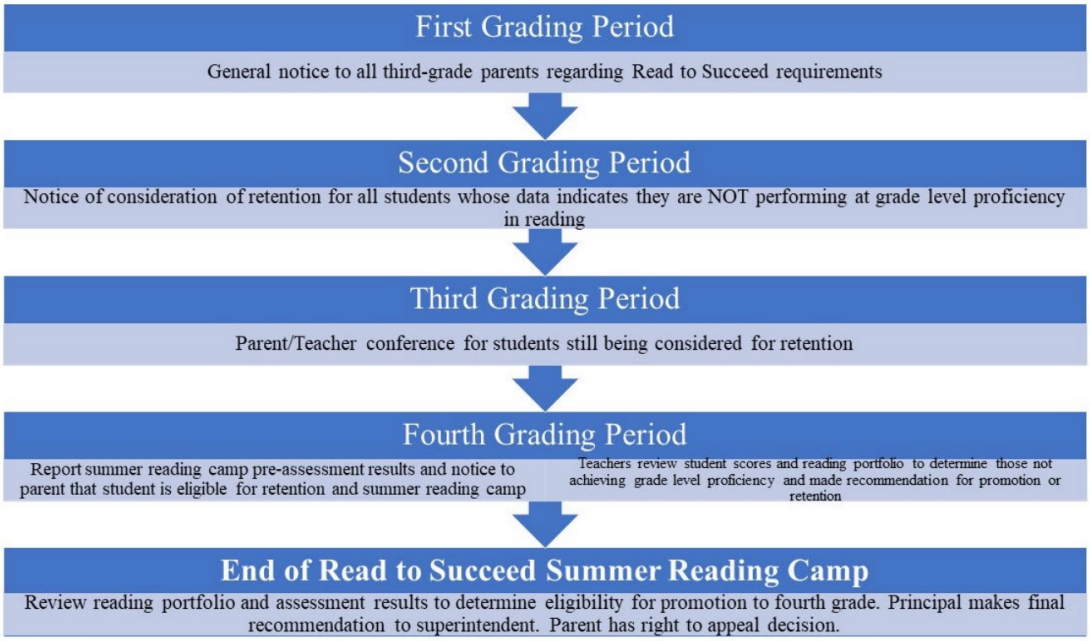
1. State, district, and school reading plans,
2. Focus on third grade progression,
3. Summer reading camps,
4. Provision of reading interventions,
5. Requirements for in-service educator endorsements,
6. Early learning and literacy development,
7. Teacher preparation, and
8. Reading coaches (South Carolina Department of Education, 2021).

State, District, and School Reading Plans. Read to Succeed, also known as Act 284, requires the department of education to establish, execute, assess, and improve as needed, a comprehensive reading plan addressing pre-kindergarten students to high school seniors to advance reading achievement. The South Carolina State Reading Plan informs districts and schools as they create their own plans to address the reading achievement of their students (Reading Plans (State, District, and School), n.d.).

Third Grade Progression, Summer Reading Camps and Provision of Reading Interventions. At the start of the 2017-18 school year, Read to Succeed began requiring all third-grade students be retained if they fail to demonstrate third grade-reading proficiency by the end of the school year. Third grade is considered a highly important year as students are no longer learning to read but reading to learn. This component is intended to ensure that students have their reading needs identified and met by the time they complete third grade. To provide instruction to students and to ensure they reach reading proficiency, funds are allocated for each school to facilitate summer reading camps using a certified teacher who has a literacy teacher endorsement. Moreover, proper intervention programs and support should be provided to those students who are struggling. (Code of Laws - Title 59 - Chapter 155 - South Carolina Read to Succeed Act, n.d.). To review third grade retention guidelines and notification timeline, please refer to Figures 3 and 4.

Figure 3

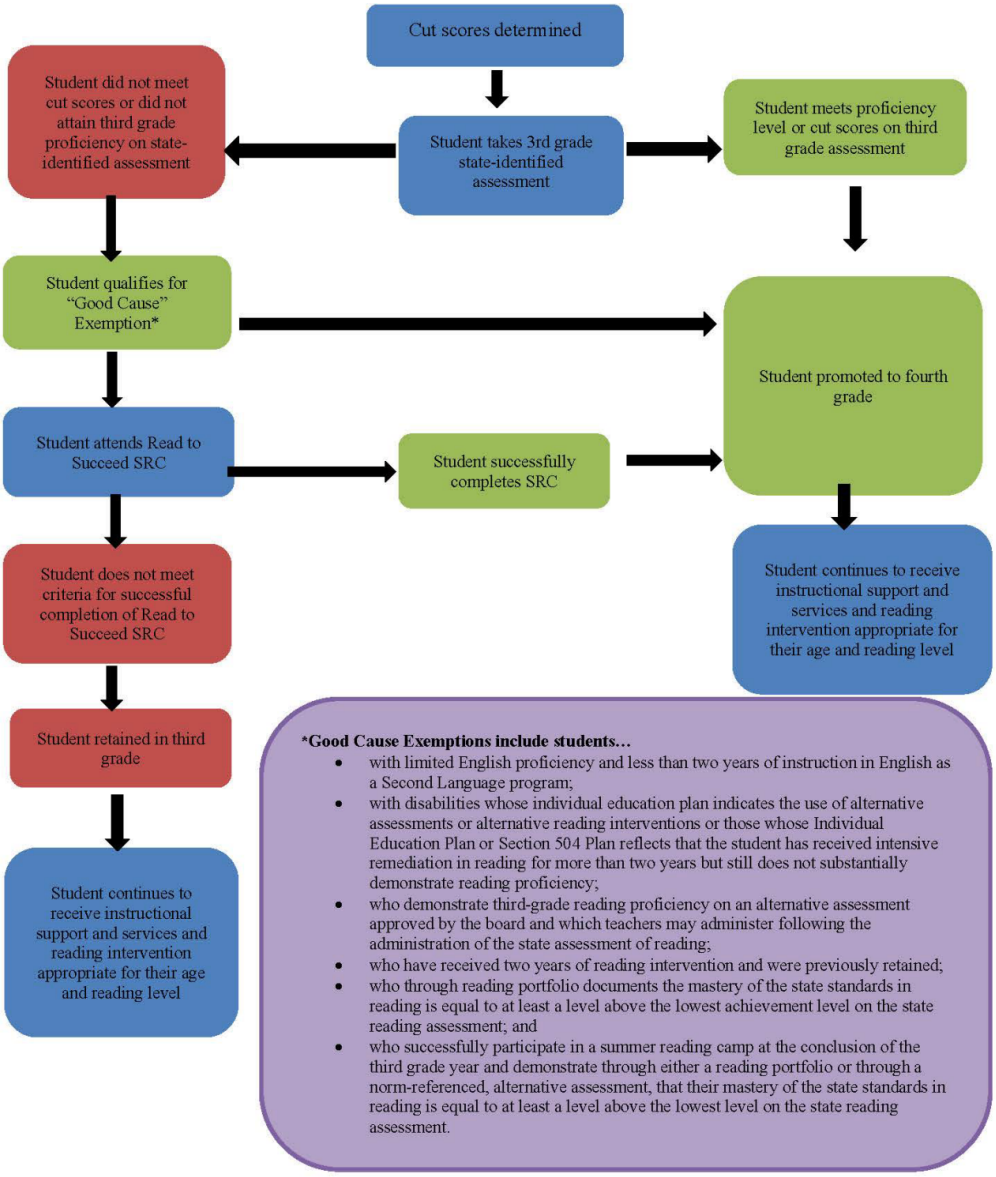
Third Grade Retention Flowchart



Note: From the SCDE. (2023). Read to Succeed Third Grade Retention Guidance Document. Retrieved March 16, 2023., from https://ed.sc.gov/instruction/early-learning-and-literacy/read-to-succeed/third-grade-retention/updated-third-grade-retention/

Figure 4

Read to Succeed Retention Notification Timeline for Third Grade



Note: From the SCDE. (2023). Read to Succeed Third Grade Retention Guidance Document. Retrieved November 31, 2023, from https://ed.sc.gov/instruction/early-learning-and-literacy/read-to-succeed/third-grade-retention/updated-third-grade-retention/

In-Service Educator Endorsements, Teacher Preparation, and Reading Coaches. Under the Read to Succeed framework, all teachers must be provided access to coursework equipping them with the knowledge and skills to teach their students to comprehend grade level texts. Additionally, all teacher certification programs must be approved by the State Department of Education to ensure all candidates complete programs with the knowledge and skills to effectively assist children in becoming proficient readers. Moreover, each elementary school should employ a reading coach who provides ongoing professional development to teachers, in an effort to improve reading instruction and achievement (Code of Laws - Title 59 - Chapter 155 - South Carolina Read to Succeed Act, n.d.).

Early Learning and Literacy Development. Through the Child Early Reading Development and Education Program (CERDEP), Read to Succeed focuses on early learning and literacy development. This component of the act is concerned with students having successful reading experiences in kindergarten. Also, to support the reading development of at-risk preschoolers in high poverty districts, CERDEP provides funds for full day 4K programs. All students entering prekindergarten or kindergarten in a public school, must be administered the Kindergarten Readiness Assessment (KRA) (Code of Laws - Title 59 - Chapter 155 - South Carolina Read to Succeed Act, n.d.). An overview of KRA and how it supports students, can be seen in Figures 5 and 6.

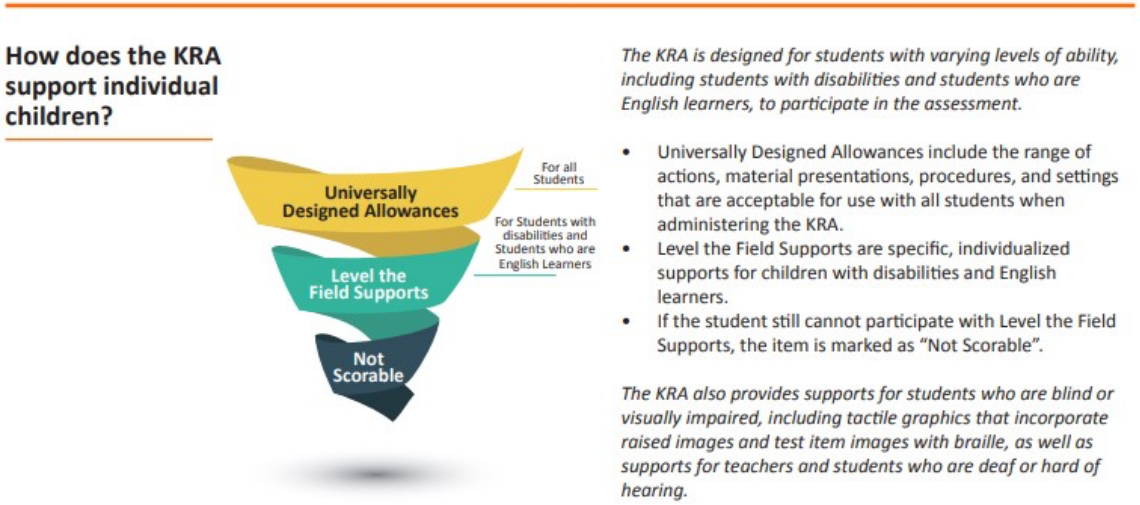
Figure 5

What is KRA?

Note: From the State of South Carolina Department of Education. (n.d.) Fact Sheet. Retrieved from https://ed.sc.gov/tests/tests-files/pre-k-and-kindergarten-readiness-assessments/kra-fact-sheet/

Figure 6

How Does KRA Support Individual Children?



Note: From the State of South Carolina Department of Education. (n.d.) Fact Sheet. Retrieved from https://ed.sc.gov/tests/tests-files/pre-k-and-kindergarten-readiness-assessments/kra-fact-sheet/

States With Legislation Similar to Read to Succeed. South Carolina is not alone in its quest to improve the reading achievement of its students. Several states have passed legislation requiring schools and districts to create reading plans designed to ensure

students are equipped with proficient reading skills. In 2016, Michigan passed Read by Grade Three, a law requiring schools to identify students who are struggling in reading and writing. Like Read to Succeed, Read by Grade Three requires students to be retained in third grade if they are more than one grade level behind (*What is the Read by Grade Three Law,* n.d).

North Carolina's Read to Achieve (RtA) legislation was passed in 2012 with a goal of increasing the reading achievement of elementary students. The RtA policy includes mandatory interventions for students who are not reading proficiently by the end of third grade (Stallings & Weiss, 2018). Having a similar goal to RtA, The Virginia Literacy Act aims to increase the literacy rates of Virginia's kindergarteners, first, second and third grade students. This law will take effect at the beginning of the 2024-2025 school year (Gelman, 2022).

Developed out of a desire to promote literacy in the next generation, Georgia HR 650 is the state of Georgia's legislation to ensure the reading proficiency of its students. One of the primary goals set forth by Georgia HR 650 is to identify evidence-based reading instruction to ensure a literate workforce (HR 650, n.d.). In February of 2021, the state of Tennessee signed into law the Tennessee Literacy Success Act. With a mission to improve literacy rates in the state, the law outlines requirements for school districts to develop literacy plans to improve reading outcomes for the state's students (Foundational Literacy Skills Plan, n.d.).

Operational Definitions

The following terms are defined to help the reader understand the context of each term in this quantitative research study.

Accountability: "Acceptance of the responsibility for improving student performance and taking actions to improve classroom practice and school performance by the Governor, the General Assembly, the State Department of Education, colleges and universities, local school boards, administrators, teachers, parents, students, and the community" (Code of Laws - Title 59 - Chapter 18 - Education Accountability Act, n.d.).

*Administrative Law Court (ALC): "*The Administrative Law Court is an agency and court of record within the executive branch of state government created by the South Carolina General Assembly by Act No. 181 of 1993, to provide an independent forum for hearing the contested cases of state agencies." (SC Administrative Law Court - Home, n.d.).

Charter School: "A charter school is a public school that operates as a school of choice. Charter schools are exempt from significant state or local regulations related to operation and management but otherwise adhere to regulations of public schools" (What Is a Charter School | NCSRC, n.d.)

College Readiness: "Ability of a high school student to succeed in the pursuit of post-secondary education" (Lynch, 2020).

Elementary School: "Any public school which contains grades no lower than kindergarten and no higher than the eighth." (South Carolina Code of Laws, n.d.-b).

English Language Arts (ELA): "The discipline of English language arts includes reading, writing, listening, speaking, viewing, and producing texts, broadly defined." (English Language Arts – Teaching Works Resource Library, n.d.)

*Kindergarten Readiness Assessment (KRA): "*A developmentally appropriate instrument that measures a child's school readiness across multiple domains.

Understanding a child's school readiness helps kindergarten teachers best meet the child's needs, and it helps schools, families, communities and policy makers know how best to support young children as they enter the K-12 environment." (Kindergarten Readiness Assessment (KRA), n.d.)

Lexile Level: "method used by schools to measure a student reader's ability." *(Lexile Levels, n.d.)*

*Measures of Academic Progress (MAP): "*are a series of computerized adaptive tests that measure general knowledge in reading, mathematics, language usage and science." (Measures of Academic Progress (NWEA MAP), n.d.)

National Assessment of Educational Progress (NAEP): "The largest nationally representative, continuing evaluation of the condition of education in the United States." (About NAEP, n.d.)

Oral Reading Fluency (ORF): "The speed and accuracy with which text is read orally" (Speece and Ritchey, 2005).

Profile of a South Carolina Graduate: "Characteristics which demonstrate a student is on track to demonstrate readiness to start a career or enter a two- or four-year university" (Education Oversight Committee 2018).

Project-Based Learning (PBL): "Project Based Learning is a teaching method in which students learn by actively engaging in real-world and personally meaningful projects." (Buck Institute for Education, n.d).

Public school: "Any school operated by publicly elected or appointed school officials in which the program and activities are under the control of these officials, and

which is supported by public funds" (Code of Laws - Title 59 - Chapter 155 - South Carolina Read to Succeed Act, n.d.).

School Choice: "Any policy that allows families to take their children's education dollars to the approved education provider of their choosing – be it traditional public schools, public charter schools, private school, virtual learning, or home schooling" (American Federation for Children, *n.d.*).

South Carolina College-and Career Ready Assessment (SC READY): "A statewide assessment in English Language Arts (ELA), mathematics, science and social studies administered to students in grades 3–8 as required by the Education Accountability Act (EAA) (South Carolina College- and Career-Ready Assessments (SC READY, n.d.).

South Carolina Department of Education (SCDE): "Provides leadership and support so that all public education students graduate prepared for success" (*About*, n.d.).

South Carolina Public Charter School District (SCPCD): "South Carolina's most-established charter school authorizer, the South Carolina Public Charter School District exists to provide high-quality, innovative, and diverse options for all families across the state" (Home, n.d.).

Student Achievement: "The measurement of the amount of academic content a student learns in a given time frame" (Student Achievement Definition and Meaning, n.d.).

Student Progress: "How students are growing or improving academically in English Language Arts and Math and how the lowest performing 20% of students in a school are growing academically" (Education Oversight Committee, 2018).

Student Engagement: "Focuses on basic, objective measures of student engagement in schooling, such as attendance and continuous enrollment" (National Alliance, Colorado League of Charter Schools, CREDO & NACSA, 2008).

Third grade reading proficiency: "The ability to read grade-level texts by the end of a student's third grade year as demonstrated by the results of state-approved assessments administered to third grade students, or through other assessments as noted in this chapter and adopted by the board" (South Carolina Code of Laws, n.d.-c).

Traditional Public School (TPS). "Any school existing or to be built that is operated and controlled by a school district in this state" (Traditional Public School Definition, n.d.).

Virtual: "Education method that is delivered through online or distance learning format" (Team, n.d.).

Assumptions and Delimitations

In this study, it is assumed the SC READY assessment is a reliable and valid means of measuring the reading achievement of students in South Carolina. It is also assumed that students made their best efforts on the 2020-2021 SC READY Assessment. Finally, the assumption was made that innovations included in this study are strictly utilizing curricular educational methods aligned with the school's defined format.

This study has several delimitations. The innovations and students chosen were limited to WCSD elementary charter innovations, which represents just a fraction of the charter schools in the district and South Carolina. Since only three innovations were used, the small size of the sample may also serve as a limitation to this study. Time constraints limited the study to include only three of WCSD's schools subscribing to PBL, virtual or

College Readiness formats. A study including all WCSD's innovations or all the district's virtual, Project-Based and College Readiness innovations might have yielded results reflecting the district's total impact on reading achievement. Although student achievement can be measured through various other indicators, this study measured student achievement through only acquired vertical scale scores on the 2021 SC READY ELA assessment. Using performance data from other assessments might have allowed for more triangulated data. This study is further limited by the researcher's decision to focus only on reading achievement of the innovations. Including math achievement in this study might have allowed the researcher to develop a comprehensive understanding of the achievement of WCSD's third grade students. Additionally, the SC READY performance scores for only third graders were included in this study. Including all students who participated in the state's achievement assessment could have resulted in different findings representative of the innovations' overall effects on reading achievement. Finally, the researcher's decision to use only 2021 SC READY performance data further limited this study. This decision was made because the researcher was closely involved with at least one of the innovations during the 2021-2022 school year and beyond and desired to minimize the opportunity for bias. No scores were available for the 2019-2020 school year, as administration of SC READY was canceled due to the COVID-19 pandemic (Mathis, 2021). Using multiple years of SC READY vertical scale scores might have allowed the researcher to triangulate data to develop a comprehensive understanding of the achievement experienced by WCSD innovations.

Significance of the Study

Because one of the purposes of the South Carolina Charter Schools Act was to assist in improving student learning and increasing learning opportunities for students, this study aims to investigate this using the performance achievement of WCSD's Virtual, Project-Based Learning and College Readiness elementary innovations. Analyzing the overall reading achievement of these innovations will not only inform policy makers on the achievement of charter schools, but it will also provide data for parents, enabling them to make informed decisions about what types of charter innovations might best educate their children. This data is equally important to both charter school leaders and TPS leaders, so they too can make informed decisions about their own instructional practices. All students deserve a high-quality education equipping them with skills to be productive citizens. With WCSD serving more than 50% of the state's public charter enrollment, it is important to understand the impact its various innovations are having on the reading outcomes of enrolled students.

Summary

Early reading achievement has major implications for students' educational progress. Research has long matched early reading achievement to math achievement, middle school success, as well as high school graduation. South Carolina has recognized the need to improve the reading outcomes of its students and has implemented a number of reading initiatives. The most recent initiative and the conceptual framework of this dissertation, Read to Succeed, is intended to improve reading outcomes for South Carolina students as well as equip teachers with the necessary skills needed to provide reading instruction. To assist South Carolina in improving educational outcomes of its students, in 1996, the state passed the Charter School Act allowing for charter schools to

be established in the state. In order to better understand the performance of South Carolina charter schools and their impact on the reading achievement of students, a comprehensive study was completed.

Chapter two discusses the existing research surrounding virtual, Project-Based and College Readiness charter schools and their performance in South Carolina.

Chapter Two: Literature Review

Introduction

The primary purpose of this study was to examine the differences in third grade reading achievement of WCSD's Vision School of Excellence Project-Based Learning, Mauldin School of Excellence College Readiness, and Virtual Academy of the State innovations.

This literature review aims to provide a summary of existing literature in the areas of school choice, charter schools, the history of their growth in South Carolina, and the achievement associated with them. The chapter begins with school choice followed by a historical background of charter schools and then provides a review of the charter school emergence in South Carolina including the procedure for establishing a charter school. Moreover, this literature review will discuss the available literature regarding the achievement of charter schools compared to TPS as well as the achievement of South Carolina charter schools compared to the state's TPS. Literature on virtual, Project-based Learning and College Readiness schools will be reviewed followed by literature on reading intervention programs.

School Choice

The origins of school choice can most often trace back to Milton Friedman, a winner of the Nobel Prize in Economics. While Freidman (1962) believed that the government should have some involvement in education, he detested the idea that "Formal schooling is today paid for and almost entirely administered by government bodies" (p. 85). He also believed that public schools were not concerned with the satisfaction of parents and guardians of its students, nor were they concerned with their

own improvement. With the insertion of free market forces through school choice, Friedman believed that parents would be empowered to gain the attention of public-school districts by choosing to send their students elsewhere until public education systems were improved. The message sent would be especially resounding if funding for students leaving public schools followed them by way of tuition allowances or vouchers.

Friedman (1955) presented the theory of school choice for the first time. Friedman's theory is not an array of principles that can be selected and implemented at will; rather, it is a system. Principles of school choice are interconnected, and how one is put into practice has an impact on the outcomes of others. Vouchers would be given to students, which they could use at any accredited educational establishment.

Friedman (1962) posits that vouchers would be given by the government to parents who could exchange them for educational services. These services could be obtained from an "approved" institution of their own choice. Institutions could be private, public, for profit or not for profit. The government's role would only be to ensure that institutions met the minimum required standards. Freidman likened this oversight to how the government "inspects restaurants to ensure that they maintain minimum sanitary standards" (p. 89). Friedman believed the impact on the institution's loss of funding, as a result of vouchers, would be a catalyst for school reform.

While Friedman's voucher system remained relevant, he did revise his ideas over time. In the revision of the voucher system, he compared it to the GI bills that were provided to military veterans. Parents would receive vouchers for educational purposes only, allowing them to choose any school at which to use them. The only criteria was that the chosen school met the required guidelines.

> Parents could, and should, be permitted to use the vouchers not only at private schools but also at other public schools—and not only at schools in their own district, city, or state, but at any school that is willing to accept their child. That would both give every parent a greater opportunity to choose and at the same time require public schools to finance themselves by charging tuition (wholly, if the voucher corresponded to the full cost; at least partly, if it did not). The public schools would then have to compete both with one another and with private schools (Friedman & Friedman, 1980, p. 161).

Goldhaber (1999) defined school choice as "any policy that is designed to reduce the constraint that current school configurations place on schools and students." (p. 16) Along with this definition, Goldhaber provided a general overview of the arguments in favor of and in opposition to school choice. Those in favor of choice were driven by two theories: (a) competition among schools will help to increase the efficiency of educational services provided and thus improve educational outcomes, and (b) choice would grant parents more control over educational decisions, empowering them to choose better school options for their children. Opponents of school choice believed it would cause a market approach to public education causing lower performing schools to close. Other opponents of school choice believed it would not benefit the underserved population, those who need it the most.

The research of Goldhaber (1997) examined the primary assumptions made by those who advocate for school choice which are (a) traditional public schools are not as efficient as private schools (b) parents know the differences between schools providing quality education and those which do not, and (c) parents will consider school performance in their educational decisions. Goldhaber suggested that school choice exists when vouchers are provided for fee-paying private schools to eligible parents, thus eliminating economic obstacles hindering parents from attending.

Goldhaber and Eide (2002) examined what is known and unknown regarding the impact of school choice on minority children in urban school environments. Their research suggested that school choice is essential to any educational reform designed to enhance student performance. Although societal pressures have been the catalyst for significant increase in choice alternatives, Goldhaber and Eide argued that empirical data on the academic impacts of school choice reforms produce inconclusive findings. Their research found no evidence of choice schools having a positive or negative influence on the success of either the students who attend them or those who remain in TPS.

Hoxby (2001) provided an argument that the competitive pressures from decreased student enrollment, as a result of school choice, would cause positive impacts on the achievement of students in public schools. Her research also suggested that where competition was more prevalent, improvement in the local public schools was most noticeable. According to her research, advocates of school choice believed competition would cause schools to be more efficient in student achievement, as a result of the pressure to compete in meeting the needs of students and families.

Hoxby (1998) concluded that the primary matter of school choice is how schools respond to the needs of parents when it comes to schooling. Schools must acknowledge those needs in all areas, including academics, sports programs, discipline, etc. In her research, Hoxby (1998) found competition between district programs resulted in greater outcomes. Additionally, as school choice brought about greater achievement outcomes, notable gains were also present in school efficiency. These outcomes, together, resulted in fewer students transferring out of public schools, stronger school and parent relationships, and more choice and voice for parents.

Hoxby and Rockoff (2005) used a lottery-based evaluation of charter schools to analyze student gains over time. Their study included two groups of students (1) students who applied and were admitted through the lottery and (2) those who applied but did not gain entry. Hoxby and Rockoff found that students who entered charter schools between kindergarten and fifth grade experienced greater gains in math and reading achievement. They also note charter school students outperformed those who were "lotteried" out by five to six percentile points. Their research also revealed greater achievement gains for charter school students than past research. This difference, according to the researchers, can be attributed to the research design used. The design sample included only students who applied to attend charter schools. Those included are those who were selected and enrolled in a charter school and those who were not selected and remained in the TPS from which they applied. Hoxby and Rockoff (2005) believed their results differ from previous studies of charter school students and TPS students because all students in their study applied to attend charter schools. The only difference in the groups were the outcomes of the randomly drawn lottery numbers.

Charter Schools Historical Background

Kolderie (2005) provided a brief introduction to the creator of the term "charter school" as he discussed the origins of the 'Charter Concept'. Ray Budde, a former professor of education at the University of Massachusetts, introduced the idea of charter schools in 1974 in a paper entitled "Education by Charter", examining the reorganization of school districts. When he asked his friends and colleagues what they thought about the ideas presented in his paper, he received no response, as no one thought there were significant problems with education which required such an overhaul. Ray Budde's ideas

remained unexamined publicly until 1988, when he published his paper after the publication of "A Nation at Risk" in 1983.

The National Commission of Excellence in Education (1983) published "A Nation at Risk" which examined education quality in the United States. The report was concerned with the decline in student achievement, possibly resulting in America being less competitive in business and industry. More specifically, the authors' concern centered around the assurance that all, regardless of color, religion, social status, gender, have an equal right to education. The report suggested this basic human right was not being fulfilled. As a result of their findings, the commission focused on four areas: content, expectations, time, and teaching. Within the area of content, the group found there was little rigor. Expectations were minimal, and standards were lowered while state colleges and universities were required to admit students who had graduated high school. As it relates to time, the group found that students spent around 22 hours per week in school and some nonacademic classes counted as much toward graduation as core classes. Finally, as it relates to teachers, the report found most teachers were not prepared or underprepared to teach. The publication of "A Nation at Risk" was a catalyst for a cultural shift in education.

Kahlenberg, R. and Potter, H. (2014) discussed the contributions of Al Shanker to the charter school movement following the publication of "A Nation at Risk". Ray Budde's idea of *Education by Charter* was further developed by Al Shanker, American Federation of Teachers president, who suggested that teachers be given new schools within the existing schools. In these new schools, teachers would be allowed to experiment with educational approaches. Though funded publicly, these chartered

schools would be managed independently and given a strict timeline to evaluate these innovative approaches. Without being bound by district controls, teachers would be given the autonomy to use their own experiences and expertise to experiment with teaching and learning and then pass on their findings and best practices to traditional public schools. This form of schooling was thought to be better at educating underserved students.

Anderson et al. (2000) provided findings through the evaluation of the Public Charter Schools Program. In 1993, support of charter schools was garnered by then president, Bill Clinton when he introduced the Public Charter Schools Program (PCSP) one year after the first charter school opened in Minnesota. This program was created to provide support for new charter schools in the areas of planning, development, and/or initial implementation. The 2000 evaluation focused on two key issues, the PCSP program, and the flexibility and accountability of charter schools.

South Carolina Charter School Emergence

The charter school application process is spelled out in section 59-40-70 of the charter school act. First, a letter of intent must be submitted to the board of trustees or governing body of which sponsorship is being sought at least ninety days before an application is submitted. Once applications are submitted to the governing body, a copy must also be sent to the SCDE Charter School office. Within 90 days of receipt of the application, the recipient must publicly rule on the application while giving reasonable public notice of the hearing. During the ninety days, the governing authority may request additional information from the applicant. The sponsor then either denies the application by providing a written explanation within ten days, or the sponsor approves the charter school application. If an application is denied, the applicant may appeal the sponsor's

decision to the Administrative Law Court (ALC) within 45 days. The ALC will either reverse or affirm the sponsor's decision. When an application is approved, the following year is used to prepare for opening. Within 45 days of approval, the SCDE must confirm the financial data provided by the school (Code of Laws - Title 59 - Chapter 40 - Charter Schools, n.d.).

Smith and Gunnlaugsson (2021) discussed the early stages of charter development in South Carolina in their special report on education for the Palmetto Promise Institute. From 1991 to 1999, South Carolina's State Superintendent of Education, Dr. Barbara Neilson, the first woman to be elected to this position, served two four-year terms. While she showed support for the charter movement, she made it clear she would be against supporting charter schools if their presence caused a regression to public education.

Rogers (2002) provided a brief overview of the SC charter school growth in his report to the SC Department of Education. In 1996, the South Carolina General Assembly debated and discussed the Charter School Act (Act No. 447) before passing it. Even though SC charter schools were exempt from several state educational policies, they were issued standards of accountability which they were required to meet. While Act No. 447 permitted local school boards to sponsor an unlimited number of charter schools, local school districts also had unlimited authority in determining if a school could be chartered. Because some school districts were not welcoming to charter schools, it was highly unlikely SC would see massive growth as other states had. This was evident when in 2002, SC had only eight charter schools and North Carolina, whose charter school laws were established in 1996 also, had 34.

The charter school concept was slow to take form in South Carolina, however, once it became widely accepted, it became somewhat of a movement. This movement started in Hilton Head Island with 80 parents and 300 students, who, in 1994, organized and petitioned for a bill allowing them to establish a charter school. When the charter school act was finally passed in 1996, these "pioneering parents" were sure that they would open South Carolina's first charter school. Unfortunately, Lighthouse Charter School was denied because of the school's failure to match the local school district's racial composition, a component of the state's charter school act. By 1998 advocates for South Carolina charter schools were discontented, not only because the charter movement had not taken off like they hoped it would, but because their neighboring state, North Carolina, whose charter law was established around the same time, had 34 schools, while SC had only three (Smith & Gunnlaugsson, 2021).

Butcher, J. and Medley, J. (2012) discussed the *Fits and Starts* of charter schools during the beginning stages in South Carolina. While the state passed the charter law in 1996, it was faced with opposition from education organizations and the legislature. Originally, only local school districts could authorize charter schools. As a result, 10 years after the charter school act was passed, South Carolina had only twenty-nine schools, with very few having successful track records. Fourteen charter schools had opened and closed before year three, many due to financial problems or improper planning, while some districts took an oppositional stance toward charter schools. In response to the opposition faced by charter schools, The South Carolina Public Charter School District (SCPCSD) was created by lawmakers as an alternative authorizer. With the creation of SCPCSD, charter schools could open and operate anywhere in the state

with no responsibility to local school districts. In 2008, SCPCSD opened and established five schools, but by the end of the school year, one had been revoked and two were having financial difficulties, while the district, itself was operating with barely enough finances to cover monthly expenses.

Guyette (2017) announced, for Erskine College, the establishment of the Charter Institute at Erskine in 2017. Registering under the South Carolina Charter School Act in May, the organization began with two virtual charter schools who transferred from the already established South Carolina Public Charter School District. Approximately four years after the establishment of the Charter Institute at Erskine, Wyatt (2021), announced the creation of Limestone Charter Association. Limestone Charter Association opened with a mission "to serve as the cornerstone of charter school authorizing in South Carolina and to facilitate a positive, educational environment that fosters school autonomy through support and oversight to its member schools."

Charter School Impact on Achievement

A large body of research has found charter schools to have a positive effect on the academic outcomes of students enrolled in them. Griffith (2019) compared ELA and math scores from several districts to determine if higher charter market share and relationship between charter market had any impact on these scores. He found in urban areas, where charter schools make up a higher market share, black and Hispanic students experience notable achievement gains. His findings also demonstrate that in suburban and rural areas where there are higher markets of charter schools, Hispanics and black students continue to experience higher achievement gains, while finding no evidence of achievement gains for white students being impacted by the higher charter market.

Wang, Rathbun & Musa (2019) used multiple data sources to provide a report putting forth a broad view of trends regarding the availability of school choice. Their reporting found, in 2017, there was no significant difference in reading scores reported by the National Assessment of Educational Progress (NAEP) between eighth grade students in TPS and charter schools. These findings also hold true for the reading scores of students in fourth grade. As it relates to math, the same trends hold true for both fourth and eighth grade charter and TPS students.

Chen & Harris (2021) studied the combined effects of charter schools on a national level and across multiple outcomes. Their study concluded that districts where more than 10% of the schools are charter schools, experience higher graduation rates by an estimate of two to four percentage points. The same holds true as it relates to elementary test scores. According to this research, when charter schools make up more than 10% of the schools in a district, elementary and middle school test scores are increased by 0.16 standard deviations.

Smith and Gunnlaugsson (2021) and Shakeel and Peterson (2005) both provide research that indicates black students experience higher achievement in charter schools than TPS students. Smith and Gunnlaugsson (2021) sought out to explore the obstacles South Carolina charter schools face, in hopes of their findings improving outcomes for South Carolina charter schools, TPS, and schools nationwide. Their research included data demonstrating wins for charter schools in Denver, Colorado and New York, New York. In New York, test scores of charter school students of color were equivalent to having 23 more days of instruction in reading and 57 more days of instructional time in math. In Denver, black students experienced greater gains in reading than TPS students.

These students' scores also exceeded the state average for TPS. Shakeel and Peterson (2005) found African American students enrolled in a charter school experienced significantly higher performance scores. More specifically, the math scores of eighth-grade African American charter school students improved four times the rate of this same group of students enrolled in TPS.

On the contrary, the research of Shakeel and Peterson (2021), Bifulco and Ladd (2006), and Zimmer and Budin (2005) suggested that charter schools have no or negative effect on student academic gains. Shakeel and Peterson (2021) examined trends in national charter school student performance over a twelve-year period. Their findings indicated that in 2017, there was no significant difference in reading and math scores as reported by the National Assessment of Education Progress for fourth and eighth grade students. In 2005, there was a significant gap in these scores, where charter students lagged their TPS counterparts. Shakeel and Peterson also found, in 2005, the average test scores for African American students in charter schools and TPS were the lowest between African American, white American, Hispanic American, and Asian American students.

Bifulco and Ladd (2006) set out to estimate the impact of charter schools on students enrolled in charter schools and in local TPS. Their findings revealed charter school students experience fewer achievement gains than they would in TPS. Additionally, it can be expected that blacks and Hispanics have lower achievement gains than their white counterparts. Subsequently, the study concluded that children, in general, can expect lower achievement gains when enrolled in a charter school, as opposed to TPS. Zimmer and Budin (2005) examined the effects of charter schools on student

achievement, specifically on different demographic groups. This examination concluded that charter schools are not producing improved achievement for minorities but instead, are having a negative effect on the performance of both blacks and whites. Research also suggested this negative effect is substantially larger for minorities.

SC Charter VS SC TPS Student Achievement

The Center for Research on Education Outcomes (2019), Miller (2020), and information from the 2019-2020 SC School Report card suggested that SC charter schools experience fewer achievement gains than the state's TPS. The Center for Research on Education Outcomes (2019) examined the impact of charter school attendance on student academic progress in South Carolina for students who took the state's mandated accountability assessments. In South Carolina, charter school students showed fewer achievement gains during the first year of enrollment at charter schools than their peers in TPS. The research went on to explain that these achievement gains increased after two to three years of enrollment. These findings suggest the longer a student is enrolled in a charter school, the more achievement gains can be expected. This research also posited that charter school students in South Carolina demonstrate lower achievement gains in mathematics than their TPS counterparts. The contrast between gains of TPS students and charter school students is equivalent to charter school students having 127 days of learning as opposed to 180.

Miller (2020) reported that when it comes to ELA SC Ready achievement, median scores for South Carolina charter schools are slightly below the state averages, while math achievement median scores are well below the state average. Virtual charter elementary schools' median English scores fall just below the state average while their

middle schools are in line with the state's average. For South Carolina virtual charter schools, the statistics are even more grim, with scores on all achievement tests falling below the state average. As it relates to high school achievement, the median success rate on the English EOC for charter school students is significantly less than the success rate of TPS schools. The same holds true for the median success rates for charter school students' Algebra 1 EOC exams (Overview - SC School Report Card, n.d.).

Data from the 2019-2020 SC School Report Card showed charter schools in the state are lagging the state's TPS's graduation rate. This trend has continued since this date and with another authorizer, Erskine Charters, being added. For the school year 2019-2020, the graduation rate for the state's TPS was 82.2% while SCPCS' was 71.2 and Erskine's was 68.1. While the charter schools did experience some increase during the COVID-19 pandemic, graduation rates still lagged the state's graduation rate of 83.3% with SCPCS at 75.9 and Erskine at 80.4 (Graduation Rate - SC School Report Card, n.d.).

Smith and Gunnlaugsson (2021) presented a contrast to the data above, and reported an upward trend in the achievement among charter schools that is being canceled out by the poor performance of virtual charter schools. This is demonstrated by the graduation rates of Erskine Charters. During school year 2019-2020, its virtual schools had a 60% graduation rate, while its brick-and-mortar schools touted a 91% graduation rate. During the same school year, the graduation rate SC TPS was 82%.

Smith and Gunnlaugsson also presented data reflecting the gains of South Carolina charter schools. In 2019, 45.4% of third through eighth grade students taking the SC READY ELA assessment met or exceeded expectations. Forty-nine percent of third

through eighth graders in the SCPCD met this mark while 28 SPCSD, and Erskine Charters schools exceeded the state average. Additionally, as it relates to Mathematics scores on the same test during the same year, 21 state charter schools beat the state average of 45.1%. Overall, SCPCSD ranked 33 out of 81 districts in the state in math while beating out 65 districts in ELA, ranking 16th in the state. Furthermore, SCPCSD schools exceeded the state average for grades A, B or C on the English EOC while falling below the state average in Biology, Algebra, and U.S. History.

Reading Achievement

Hernandez (2011) discussed the long-term effects and consequences of low achievement in reading. According to the report, less than 20% of students who do not meet reading standards by the end of third grade will experience on-time high school graduation. This rate is four times greater than the rate of third graders who do meet reading standards. Furthermore, those third graders who are not reading proficiently by the end of third grade and who live in poverty are three times likely to become high school dropouts than students who have never experienced poverty. This research went on to suggest that black and Hispanic children who are not reading proficiently by the end of third grade are twice as likely than their white counterparts to drop out of high school.

Price (2014) explained how and why third grade reading proficiency guarantees the foundation for a "top-notch" education. To begin her claim, Price posited that attainment of reading skills sets the foundation for future school-based learning. Furthermore, reading is considered as the most important determinant of public education success. More specifically, as it relates to third grade, up until students reach grade three,

they are still in the process of learning to read, however, once they complete third grade, they begin reading to learn. If students have not mastered reading proficiency by the end of Grade three, learning in all subjects and subsequent grades will be in jeopardy.

Zoukis (2017) discussed how the illiteracy of students could potentially feed the school-to-prison pipeline. According to Zoukis, a little more than 40% of U.S. adults read at the eighth-grade level or lower. Likewise, 29% are only able to read at the eighth-grade level, while 14% comprehend at a fifth-grade level or lower. As literacy relates to the school-to-prison pipeline, 85% of U.S. children who get involved with the judicial system are unable to effectively read or write. Additionally, only 40% of U.S inmates can read or write. As a result of these statistics, prisons project their future needs using third and fourth grade reading attainment. Zoukis believes the only way to fight crime and slow the school-to-prison pipeline is to address the reading epidemic through funding, teacher quality, and reduction to class sizes. Subsequently, these actions will result in safer communities, more earning opportunities for youth, and a reduction in the prison population.

Virtual Schools

Virtual schools have become increasingly popular as states and districts attempt to provide students with more learning opportunities. Much research has been completed regarding the rise of and achievement outcomes of virtual schools. It is estimated that virtual K-12 enrollment was between 45,000-50,00 in 2000. In 2021, enrollment grew to approximately 300,000 with 150,000 students enrolled in a blended model, where instruction took place both virtually and in person. (International Association for K-12 Online Learning, n.d.; Herold, 2021).

The research of Florida TaxWatch (2007), Cavanaugh (1999), and Shachar and Neumann (2003) found that students who attend virtual schools saw higher achievement gains. For example, Florida TaxWatch (2007), a nonprofit research organization, reported students enrolled in Florida Virtual School in grades 6-10 experienced significantly higher gains than students enrolled in Florida's brick and mortar schools as reported on the 2006 Florida Comprehensive Assessment (FCAT) reading assessment. The report also found these same students outperformed brick and mortar students in math during the same year.

Cavanaugh (1999) reported that with distance learning programs and programs blending distance and traditional learning platforms, it can be expected for students in the distance learning platform to experience moderately higher gains but not significantly higher than students in exclusively brick and mortar formats. Similarly, Shachar and Neumann (2003) found a positive impact for virtual programs, citing that in more than 60% of cases, students using an online format outperformed students who were enrolled in a traditional brick and mortar setting. Ferdig, DiPietro, and Papanastasiou (2005) completed a study in which they compared students who were taking classes at two Wisconsin online charter schools to students attending traditional brick and mortar schools. No significant differences were found between these two groups' scores on final assessments in these classes.

College Readiness Schools

College readiness became a national goal under the administration of President Barack Obama. It was his desire for the U.S. to regain its reputation as first in the world in the number of college graduates. To assist in meeting this goal, 34 states and the

District of Columbia were granted waivers of the No Child Left Behind Act in exchange for adopting College and Career Ready standards, and other policies pushing the college readiness agenda (Foley, et al., 2013).

The definition of college readiness is not universal and will represent a number of frameworks depending upon individual states. Mishkind (2014) reported that 37 states including the District of Columbia have defined this term using two types of definitions. In 33 states, college readiness is known as College and Career Readiness and has a single definition. Four states define College Readiness and Career Readiness separately. A summative definition includes the knowledge and skills necessary for a student to be prepared for college and/or career.

Hackmann et al. (2018) discussed four fundamental elements for college readiness programs: cross-sector collaboration, a robust and career-focused curriculum, principals who are committed to the concept, and regular data collection and analysis. Cross-sector collaboration describes a strong partnership between the school and local businesses and industries. This collaboration allows students to be exposed to business and industry while providing them with work-based learning experiences. A career focused curriculum is also vital to college readiness. To ensure a robust curriculum, educators, local businesses as well as colleges work together to establish a relevant curriculum, which advances preparation for college and career and fosters opportunities for students to work with experts in the community. Leadership is another important element of college readiness programs. Principals should be fully committed while ensuring schools have the necessary resources needed. They should also be deeply involved in the community while encouraging teachers to also engage with community

members. Finally, data collection and analysis should be completed regularly to evaluate these college readiness platforms. Regular evaluation provides leaders with insight in areas such as student progress and graduate activities.

Project-Based Learning Schools

In a quest to provide students with more impactful learning opportunities, Project-Based-Learning (PBL) classrooms are designed to encourage student inquiry in solving real world problems. PBL projects must consist of two vital components: a question or problem which drives the activities and activities culminating into finished products. Within a PBL setting, students are placed in real world, problem-solving conditions, allowing them to make connections between classroom learning and real-life experiences (Blumenfeld et al., 1991).

According to Krajcik, et al., (1994), for a PBL classroom to be effective, it must possess five characteristics: an engaging driving question, student created artifacts, collaboration among students for research, an audience, and the use of technology. Barron, B. and Darling-Hammond, L., (2008) posited that PBL is not just about students mastering the content. It is more about them being able to transfer what they learn to unfamiliar situations.

The research of Gultekin (2005), Summers and Dickinson (2012), and Boaler (1997) concluded PBL models have positive impacts on achievement. These studies found PBL not only fosters student learning but may also be more efficient when it comes to increasing student achievement in social studies, science, mathematics.

Gultekin (2005) claims students who were in a PBL environment demonstrated greater achievement in social studies than their counterparts who were in traditional

educational settings. It was also noted that these students experienced gains in critical thinking as well as inquiry skills. A sense of self-efficacy was also reported by students who participated in PBL programs. Summers and Dickinson (2012) found that in addition to PBL students outperforming students enrolled in traditional methods in social studies, these students also outperformed their counterparts in College and Career Readiness programs. In 2010, the PBL high school in this particular study received the highest social studies pass rates for all students in all demographics. Boaler (1997) found students in PBL environments performed equally or better than traditional school students when it came to learning based on memorization. He further suggested that these students were three times as likely as students in traditional learning settings to score the highest possible score on national exams. His findings also showed that PBL students did not have greater command of math facts, procedure, and rules, but they were better able to use math in different situations.

Reading Programs

Achieve 3000

Achieve 3000 is a prekindergarten-12th grade online, supplemental reading program that focuses on writing and the five key components to the process of reading: phonics, phonemic awareness, vocabulary, reading comprehension and fluency. Designed to assist diverse student groups, including general education students, struggling readers and English learners with building their nonfiction reading skills, Achieve 3000 is used by teachers in a classroom setting, but is individualized based on the students' reading levels. The lessons included in Achieve 3000 prescribe to a five-step procedure: (1) respond to a *Before Reading Poll*, (2) read an article, (3) answer activity questions, (4)

respond to an After Reading Poll, and (5) answer a Thought Question. Data on students' usage allows teachers to track students' progress both individually and whole class (U.S. Department of Education, 2018).

Studies on the effectiveness of Achieve 3000 provided mixed results. Reeves (2014) reports an analysis of the results from one of Texas' end of course exams and Lexical growth calculated by Achieve 3000's pre-and posttests. Findings from this report indicate the reading program improved student Lexile scores while also increasing scale scores on end of course exams. *What Works Clearing House* reviewed a 2016 study on the effectiveness of Achieve 3000. The findings of this study showed the outcomes in reading fluency after using Achieve 3000 were neither significant nor important. Another study reviewed by the same organization, presented findings that showed small effects in reading fluency (U.S. Department of Education, 2018).

READ 180

READ 180 a reading program for struggling readers in elementary through high school, who are 2 years or more below grade level proficiency standards. Using a blended learning model, READ 180 includes digital media and traditional instruction. The reading program also provides student assessments and professional development for instructors. READ 180's 45-90 minutes sessions include class instruction, small group sessions and a summary activity for the whole class. Instruction begins with 20 minutes of whole-group instruction in reading, writing, vocabulary, and grammar. This session is followed by rotations of three small group activities: small-group direct instruction, students' independent use of a computerized READ 180 application and modeled and independent

reading. The lesson ends with a short whole-group wrap-up. (U.S. Department of Education, 2016).

Research on the effectiveness of READ 180 indicated that the reading intervention is moderately effective. Cheung and Slavin (2013) examined the effectiveness of educational technology on improving reading in struggling readers. This study included a control group of fourth graders who were not given the treatment of Read 180 and another group which was. Instead, the control group was assigned to the school district's after-school reading program. Results from this study indicated that the students who received READ 180 interventions outperformed the control group in SAT vocabulary and reading comprehension, while there was no significant difference in Oral Reading Fluency. *What Works Clearing House* reviewed nine studies of READ 180 which provided context for four outcomes: comprehension, general literacy achievement, reading fluency and alphabetics. In six of these studies, positive effects were found in both comprehension and general literacy achievement in students. Potentially positive effects on reading fluency were found in two of the studies, while two students were found to have no discernible effects on alphabetics (U.S. Department of Education, 2016).

Fountas & Pinnell Literacy Leveled Literacy Intervention (LLI)

Leveled Literacy Intervention (LLI) was designed as a supplementary, short-term intervention to assist students in reaching grade level proficiency in reading. LLI provides direct instruction in the five key components to the process of reading: phonics, phonemic awareness, vocabulary, reading comprehension and fluency. Using LLI, teachers match students with texts and lessons aligned to the students' reading levels.

Designed for students in kindergarten-2nd grade, teachers match students with texts that are at the students' independent level as well as books at the students' instructional level. LLI is designed to be used over a period of 12-18 weeks, five days a week and approximately 30 minutes a day with groups of three students (U.S. Department of Education, 2017).

Reviews regarding the effectiveness of LLI provided inconsistent findings. EdReports, an organization which reviews K-12 instructional materials published an evaluation of the intervention program. Educators and researchers have posited that the program's instructional pedagogy does not match and, in some cases, contradicts best practices on how to improve reading (Schwartz, 2021). *What Works Clearing House* reviewed two studies of LLI regarding the intervention's impact on reading achievement outcomes. Both studies presented findings showing LLI has positive effects on general reading achievement. One of the findings showed LLI had potentially positive effects on reading fluency, while one showed no discernible effects on alphabetics (U.S. Department of Education, 2017).

Lexia Reading

Providing phonics instruction through a computerized program, Lexia Reading provides reading instruction in phonics while allowing students to practice basic reading skills independently. Lexia Reading is designed to act as a supplement to traditional classroom instruction to support the five key components to the process of reading: phonics, phonemic awareness, vocabulary, reading comprehension and fluency. Combining three essential components: Early Reading, Primary Reading, and Strategies for Older Students, Lexia Reading was introduced in 2007. Its software program consists

of 20-to-30-minute sessions which can be administered in two to five weekly sessions in a lab or classroom setting. For students reading at or above grade level, two sessions weekly is recommended. Recommended use for ELL students or students who are at risk is three to four times a week, while five times per week is the recommended use for special education students and students with significant reading deficiencies (U.S. Department of Education, 2009).

Studies examining the impact of Lexia Reading on reading outcomes of students are positive. One study by The Education Endowment Foundation found children who were eligible for free school lunch and offered Lexia, made gains equivalent to three months' progress over other students who were also eligible for free school lunch but were not offered Lexia (Analysis of the impact of reading program on disadvantaged pupils 2022). *What Works Clearing House* reviewed 11 studies examining the effectiveness of Lexia Reading. Overall, these studies found Lexia Reading had potentially positive effects on alphabetics and comprehension, while having no discernible effects on fluency and general reading achievement (U.S. Department of Education, 2009).

Orton-Gillingham

Orton-Gillingham is a multisensory structured literacy intervention used to teach struggling students with reading, writing, spelling, and comprehension. While it is designed for all struggling readers, it is especially helpful to those students with dyslexia, auditory processing disorder, speech, and language deficits.

Schlesinger & Gray (2017) examined multisensory structured interventions such as Orton-Gillingham and found the reading program not significantly effective with

children with dyslexia. Orton-Gillingham was found to be less effective than structured language intervention in letter naming and sounds. Additionally, the intervention had no impact on words read and words spelled correctly. The study surmised that Orton-Gillingham does not provide an advantage for students with dyslexia.

Analytic Tools

To answer the research questions, a number of analytic tools were used. Both descriptive and inferential statistics were utilized in this study. Descriptive statistics summarize data sets using measures of central tendency such as mean, median, and mode (Fraenkel et al., 2006). To make inferences about the population from which the sample was taken, inferential statistics were used. Inferential statistics help researchers determine if findings from the analysis of a sample can be generalized to a population (Gay et al., 2012). The current study utilized two types of inferential statistics, the independent *t*-test and the analysis of variance (ANOVA). The independent *t-test* is used when a researcher desires to compare the means of two different groups. When there are more than two groups to be compared, the ANOVA is used (Field, 2018). When using the *t-test* and the ANOVA, a post hoc analysis is sometimes required to determine the significance of differences found. Eta squared, η^2 and Cohen's *d* are the post hoc analyses used in the current study. To measure the effect size or the significance when differences are found using the ANOVA, eta squared, η^2 is used. When a *t*-test indicates a significant difference, Cohen's *d* is used is used to measure that difference (Field, 2018).

Summary

This quantitative research study was conducted to examine the impact of WCSD innovations on the reading achievement of their third graders. Data was collected using

school year 2020-2021 SC READY ELA vertical scale scores. In chapter three, the methodology used to examine the data is discussed. The population and sample proposed for the study will also be presented. A discussion of the proposed method will assist with understanding the focus of the research. Chapter four will provide results of the statistical analyses. Chapter five will summarize the study and provide areas for future research considerations.

Chapter Three: Methodology

Overview

This chapter focuses on the research design, while providing a detailed look at the participants, setting, instrument utilized for research, procedures, and data analysis.

The purpose of this quantitative, ex post facto study was to examine the reading achievement of third grade students enrolled in Mauldin School of Excellence College Readiness, Virtual Academy of the State and Vision School of Excellence Project-Based Learning innovations within WCSD's innovations in South Carolina. The framework used for this study is South Carolina's Read to Succeed Act 284 which ensures all students graduate from high school with the reading and writing skills necessary to be ready for college and careers (Code of Laws - Title 59 - Chapter 155 - South Carolina Read to Succeed Act, n.d.). This study used third grade SC READY ELA student vertical scale scores for school year 2020-2021 from the sample schools. In this study, there was an investigation into the SC READY performance differences between WCSD's Virtual Academy of the State, Vision School of Excellence Project-Based Learning and Mauldin Excellence College Readiness. This chapter will expound upon the research design for this study while outlining the population, sampling methods, data collection, instrumentation, and analysis. This chapter will conclude with a summary of the information presented.

Research Design

The research design is the method chosen by the researcher to answer his or her research questions. In the context of quantitative research, there are two comprehensive

approaches: experimental and nonexperimental. With experimental research, at least one independent variable receives treatment by the researcher, while controlling other variables and observing the effects on the dependent variable (Gay et al., 2012). The approach found to be most appropriate for this study was nonexperimental, ex post facto research utilizing existing data. Ex post facto, a Latin term meaning “after the fact” describes research done in retrospect (Fraenkel et al., 2006). Ex post facto research is also referred to as causal-comparative research and is appropriate for this study because, according to Gall et al., (2003), causal-comparative design is a type of non-experimental study which sets out to examine a cause-and-effect relationship between dependent and independent variables. This study, while examining three groups, will also examine extraneous variables to tell a more vivid story about the schools included. While an extraneous variable can affect the results of the study, it is not the independent variable (Fraenkel et al., 2006).

This nonexperimental, causal comparative design aimed to investigate the reading achievement between WCSD innovations while examining race, teachers, reading coaches and reading programs used in the schools which are included in this study. School year 2020-2021 archived SC READY assessment data was analyzed to investigate the differences that exist. A survey was utilized to collect data on teachers, their professional development in reading as well as reading programs to provide insight into each school.

The independent variable will be defined as school types included in this study, (College Readiness, Project-Based Learning, and Virtual). Student 2020-2021vertical scale scores, as determined by SC READY ELA assessment served as the dependent

variable. Extraneous survey data as well as student race demographics was used to examine the factors that might impact reading achievement.

Similar Design Considered

A similar design considered was a correlational design. In this type of design, the researcher seeks to examine the relationship between two or more variables without manipulation (Gall et al., 2003). While correlational research is a similar method to the current study's design, it was not utilized as the current study sought to compare groups as opposed to variables.

Study Sample

The study sample included three elementary schools in South Carolina authorized by the WCSD considered College Readiness, Virtual or PBL. Third grade ELA teachers and reading coaches from these innovations participated in a survey to provide data related to school factors. The aim of this study was to investigate the differences in reading achievement among the three innovations while examining reading programs used by them. For this study, the focus is on elementary innovations whose students completed the SC READY ELA assessment during school year 2020-2021.

Gall et al. (2003) refer to the independent variable as the presumed cause, while referring to the dependent variables as the presumed effect. In this study, the independent variable is defined as the three WCSD elementary school types (Mauldin School of Excellence College Readiness, Vision School of Excellence PBL, and Virtual Academy of the State innovations). The dependent variable is defined as 2020-2021 SC READY vertical scale scores.

Sampling a population can be completed using several methods. A sample is a smaller representation of a population which allows for generalization (Fraenkel et al., 2006). To select a sample for this study, the researcher used a convenience sampling method. Gay et al. (2012) refer to convenience sampling, also known as accidental sampling and haphazard sampling, as a non-probability sampling method in which the researcher chooses participants because they are the easiest to access. Convenience sampling is best suited for this study because it allowed the researcher to gather data that would have been inaccessible otherwise. The sample for this study includes three WCSD charter innovations whose students participated in the ELA SC READY state assessment in 2021 as well as third grade ELA teachers and reading coaches who are employed at these innovations. Additionally, these schools had to subscribe to the following innovations during the 2020-2021 school year: College Readiness, Virtual or PBL.

Participants and Setting

This study's participants consist of three elementary charter innovations authorized by WCSD in South Carolina, third-grade ELA teachers and reading coaches employed with these schools. For this study, the three charter innovations were chosen because they are categorized as elementary, subscribe to one of the following innovations: College Readiness, Virtual or PBL, and participated in South Carolina's SC READY assessment. The schools' SC READY ELA vertical scale scores from school year 2020-2021 were used. While WCSD does have schools subscribing to other innovations, such as STEM, Personalized Learning, Montessori, Global Competency, Entrepreneurial, Core Knowledge or Classical, these innovations are not included in the sample because the researcher desired to study PBL, College Readiness and Virtual

innovations specifically. The staff members were chosen because they either work with third grade students in reading or are responsible for coaching teachers who work with these students enrolled in the innovations included in the study.

Sample Characteristics

This study used a convenience sampling from the total population of schools within the WSCD. Three charter schools within this district were selected to develop this study's sample: Mauldin School of Excellence, Vision School of Excellence, and Virtual Academy of the State.

Mauldin School of Excellence College Readiness

Mauldin School of Excellence, a College Readiness K-8 school, had enrollment of 908 at the 2021 135th day count. Of this enrollment, 48.7% were female and 51.3% were male. Approximately 50% percent of Mauldin's total student population were Black/African American while 30.2% were White. The remaining 21% were one of the following ethnicities: Asian, Hispanic/Latina, Hawaiian/Pacific Islander, or a combination of two of the previous listed ethnicities. Additionally, 55.7% of Mauldin's student population were documented as economically disadvantaged (Active Student Headcounts, n.d.).

Vision School of Excellence Project-Based Learning

Vision School of Excellence, a Project-based Learning school had a total enrollment of 499 students at the 2021 135th day count. The PBL school serves students in grades kindergarten through 9th grade. Of its total enrollment in 2021, 25.2% were African American, while 69.13% were White. The remaining 5.67% of students were one of the following ethnicities: American Indian/Alaskan, Asian, Hispanic/Latina,

Hawaiian/Pacific Islander, or a combination of two of the previous listed ethnicities. Vision School's enrollment consisted of 51.7% females and 48.3% males. Forty-eight percent of Vision School students were documented as economically disadvantaged (Active Student Headcounts, n.d.).

Virtual Academy of the State

Virtual Academy of the State is a virtual school with an enrollment of 4417 students as of the 2021 135th. Of these students, 24% were African American and 62.9 were White. The remaining 13.1% of students were one of the following ethnicities: American Indian/Alaskan, Asian, Hispanic/Latina, Hawaiian/Pacific Islander, or a combination of two of the previous listed ethnicities. Of the virtual school's total enrollment, 53.5% were female, while 46.5% were male. Approximately 47% of Virtual Academy of the State's students were documented as economically disadvantaged (Active Student Headcounts, n.d.). Table 2 displays the 180 day counts for each innovation.

Table 2

2021 180th Day Count

		Ethnicity			Gender			
School Name	Total Enroll.	% African American	% White	% Other Ethnicity	% Econ. Disadvn	% Female	% Male	School Type
Mauldin School of Excellence	908	48.8	30.2	21	55.7	48.7	51.3	College Readiness

		Ethnicity			Gender			
School Name	Total Enroll.	% African American	% White	% Other Ethnicity	% Econ. Disadvn	% Female	% Male	School Type
Vision School of Excellence	499	25.2	69.13	5.67	62.3	51.7	48.3	Project-Based Learning
Virtual Academy of the State	4417	24	62.9	13.1	56.4	53.5	46.5	Virtual

Literature Search

The literature search performed for this dissertation was conducted using multiple databases. To begin, achievement and charter schools were used as the key search terms. This initial search yielded 4,691 results. To narrow the search, the term, reading, was added, producing 710 results, some of which were duplicates of the initial search.

Because the dissertation focused on WCSD, the search was run several more times. The first search used the terms charter school, South Carolina and achievement which produced 34 results. When the term achievement was changed to reading, 11 results were produced. Finally, the search was rerun using the keywords charter school, reading achievement and South Carolina. This search yielded four results.

Furthermore, because the research was focused on the WCSD, it was also added to the search. When using the district name, charter school and reading achievement, zero results were produced. Using the same search, but replacing reading achievement with achievement, again, zero results were found. One last search, replacing achievement with reading, produced zero results.

Finally, the search turned to the charter innovation types. For each type, the researcher began with the innovation type alone. “College readiness school” produced no results. The search “project-based learning charter school” produced no results, and the search “project-based learning” produced 4,593 results. To narrow this search, the term “achievement” was added, which decreased the results to 244. The search was then narrowed again by adding the term “South Carolina” which produced three results. Searches for “virtual schools" produced similar results as the search for “project-based learning”.

The literature search showed no research completed examining WCSD schools, more specifically, the reading achievement of its elementary Virtual, Project-Based and College Readiness innovations. On the contrary, there was a plethora of research focused on the national achievement gains of charter schools and some of these innovations, but there was no research found on the gains of South Carolina’s WCSD and the reading achievement of the elementary students enrolled in these innovations.

Therefore, the purpose of this quantitative approach is to examine the reading achievement of third graders enrolled in Virtual Academy of the State, Vision School of Excellence Project-Based Learning and Mauldin School of Excellence College Readiness elementary innovations in WCSD. SC Ready ELA assessment data for school year 2020-2021 was utilized for this study.

Instrumentation

This study used student performance scores from the SC READY ELA assessment for school year 2020- 2021, provided by WCSD’s director of accountability. All students in grades 3-8 are required to participate in SC READY assessment which is

intended to measure students' performance on the South Carolina College-and-Career-Ready Standards. Test items are aligned to standards for each grade and subject and outline what is expected to be taught and learned. Furthermore, the Education Accountability Act (EAA) mandates assessments must be administered online. Paper tests are available to schools who request waivers for students with disabilities prohibiting them from testing online. While the SC READY ELA assessment is not timed, the Office of Assessment provides an estimated time of one hour and 40 minutes for classroom scheduling purposes *(South Carolina College- and Career-Ready Assessments (SC READY), n.d.).*

Reading achievement is determined by performance levels which describe students' "mastery and command of the knowledge and skills outlined in the South Carolina Standards" Each grade level is assigned a vertical scale score range for each category:

- Does Not Meet - A student who does not meet expectations requires substantial academic support to be prepared for the next grade level and to be on track for college and career readiness.
- Approaches - A student who scores in the approaches range, requires additional academic support to be prepared for the next grade level and to be on track for college and career readiness.
- Meets - Students who score in the Meets category are deemed ready for the subsequent grade level and are also on track for college and career readiness.

- Exceeds - Students who score in the Exceeds category are well prepared for the next grade level and college and career readiness (South Carolina College- and Career-Ready Assessments (SC READY), n.d.)

Table 3 illustrates these ELA Vertical Scale Score Ranges.

Table 3

ELA Vertical Scale Score Ranges

Grade	Exceeds	Meets	Approaches	Does Not Meet
3	540-825	452-539	359-451	100-358

Source: (*South Carolina College- and Career-Ready Assessments (SC READY)*, n.d.)

The SC READY ELA assessment has test questions varying by difficulty which include selected response and evidence-based selected response questions. Included in this assessment also is a Text-Dependent Analysis (TDA) question which consists of a passage along with a related writing prompt. For the selected response items, students are required to select one response from four answer choices. For Multi-Select (MS) items, students are asked to select more than one correct answer choice. To receive credit, all the correct choices must be selected. Evidence-Based Selected Response (EBSR) questions are also included. These question types are in two parts. First students must read a passage and then select the best answer from the choices provided. Secondarily, students are asked to support their answer choice with textual evidence. To receive credit for EBSR items, students must answer both parts correctly. ELA Session 1 of the assessment contains the TDA. In this section, students read a passage and write an extended response based on the information found. Students are expected to support their

responses with evidence from the passage read (South Carolina College- and Career-Ready Assessments (SC READY), n.d.) The researcher also used a cross-sectional survey for the purpose of examining the school-level factors that might contribute to the SC READY ELA performance of third graders. Those factors include staff members who work with third grade students and teachers in reading and the various reading programs used by WCSD innovations included in the study. The survey consisted of multiple-choice questions as well as questions measured on a comparative rating scale and took approximately 15 minutes to complete. The first part of the survey gathered information about the participants' current role, professional development opportunities provided in reading and their Read to Succeed endorsement status. The survey then asked the participants about their use of reading programs (Achieve 3000, Fountas & Pinnell, Ortan-Gillingham, and Read 180, and Lexia Reading), ranking them in the following categories: ease of use, availability of digital resources, student data analysis and overall effectiveness by selecting the rating that best describes the participants' satisfaction of each. Responses were recorded as follows: Very Satisfied, Satisfied, Neutral, Dissatisfied and Very Dissatisfied. The survey for this study was created by the researcher using Google Forms.

Additionally, student race demographics (minority or non-minority) status was considered as possible factors to students' performance. In this study, minority student vertical scale scores were compared to the scores of non-minority students for each innovation. Minority Definition (n.d.) defines minority students as any student who is of African American, Asian, American Indian, Alaskan Native, Native Hawaiian, Hispanic,

Latino or Pacific Islander ethnic groups while non-minority is defined as any person who does not identify with any of these ethic groups.

Data Collection

Collecting data included the following steps: selecting the participants, gaining permission from organizations, gaining consent from individuals completing surveys, and collecting data based on predefined variables. This study's aim was to examine historical data and relationships among three independent variables, and one dependent variable. The independent variable is innovation type (Mauldin School of Excellence Readiness, Vision School of Excellence PBL and Virtual Academy of the State innovations). The dependent variable is the SC READY ELA Assessment performance data for the school year 2020-2021. SC READY ELA vertical scale scores for third grade students will be examined. The researcher retrieved this data by contacting the district's executive director of school services who provided all scores after removing identifiable data. Scores were exported into an excel spreadsheet, filtered by school type and then transferred to separate sheets. The individual school sheets were then filtered by minority and non-minority and then copied to separate Excel sheets.

Solicitation emails, informed consent and surveys were emailed to each school's principal, who forwarded the information to third grade ELA teachers and reading coaches. Participants were given 14 business days to complete the survey and were provided with an Amazon gift card after completion. After the 14th day, the researcher closed the survey so data could begin to be analyzed. Data was then exported to an excel file for analysis.

Data Analysis

The SC READY scores were transferred to an Excel spreadsheet categorized by innovation. Using Excel's data analysis function, the researcher used descriptive, inferential, and post hoc analyses to examine the differences as well as the significance of those differences. Descriptive statistics were used to summarize the data for each innovation and answer the research question: Does school innovation affect the reading achievement of third graders?

Inferential statistics was used to answer research question: How are SC READY ELA performance scores of third graders different between Virtual Academy of the State, Project-based Learning, and Mauldin Excellence College Readiness elementary school innovations? Analysis of variance was run to determine the differences between the scores of third graders enrolled in the three innovations. According to Gay et al. (2012), analysis of variance is used to test for significant differences in three or more groups. When this test revealed a significant difference, a post hoc analysis was completed to determine the effect size. A *post hoc* procedure is a statistical analysis of the results of a completed study to determine the size of a significance (Gay et al., 2012). Using Eta squared, the researcher was able to determine the effect size of the significance found. Field (2018) defined Eta squared as "an effect size measure that is the ratio of the model sum of squares to the total sum of squares" (p. 1695). Miles & Shevlin (2001) define Eta squared differences as small if .01-.05; medium if .06 to .13 and large as .14 or more. Effect size is used to determine the strength of an observed difference (Field, 2018).

Independent *t*-Tests were used when comparing one innovation to another as well as the innovations' individual minority group. Field (2018) states that *t*-Tests are used when two means from different groups are being compared. When a significant

difference between means was discovered, a post hoc analysis was performed using Cohen's *d*. Field (2018) defines Cohen's *d* as "the difference between two means divided by the standard deviation of the pooled estimate based on the standard deviations of both groups" (pg. 238). Field also provided suggestions regarding what can be considered a large, small or medium effect: $d = 0.2$ (small), 0.5 (medium) and 0.8 (large).

Survey data and inferential statistics were used to answer research question: What factors impact the differences between reading achievement scores of third graders as measured by the SC READY assessment between Virtual, Project Based Learning, and College Readiness innovations? Surveys were sent to principals who forwarded them to the staff members of the innovations involved. The survey remained open for fourteen days and closed after that time. Responses were exported to a Google sheet for analysis using Google's web-based analytic tools. Additionally, student race demographics and SC READY performance were analyzed for correlations. Because the researcher sought out to examine the factor of race in SC READY vertical scale scores, *t-Tests* were applied to all innovations using vertical scale scores and minority and non-minority status. When a significant difference between means was discovered, a post hoc analysis was performed using Cohen's *d*.

Summary

This chapter highlighted the research design while examining the setting and sample chosen for this study. Chapter three explained the instrumentation used, 2021 SC READY ELA vertical scale scores for third graders, student race demographics and survey data collected from teachers and reading coaches from the sample innovations. The data collection process and statistical analysis for this study was explained. The data

collected and descriptive and inferential statistical analyses performed allowed the research questions to be answered, while post hoc analyses were performed to determine the effect size when differences in means were found. Chapter four will provide an overview of the findings of these analyses.

Chapter Four: Research Findings

Introduction

The purpose of this comparative study was to examine the reading achievement of third grade students enrolled in College Readiness, Virtual and PBL innovations within WCSD in South Carolina. The results demonstrated whether differences exist in SC READY ELA vertical scores of third graders enrolled in these innovations. The study also examined the factors which may influence vertical scale scores from school year 2020-2021 such as race, staff professional development and reading intervention programs. Chapter four explains the findings of this study and contains three sections: (a) results of descriptive analyses, (b) results of inferential analyses and (c) summary.

Demographic Data

The sample for this study consisted of three charter schools (Mauldin School of Excellence College Readiness, Vision School of Excellence PBL and Virtual Academy of the State innovations) in South Carolina which are authorized by WCSD. Data examined from these schools were SC READY ELA vertical scale scores from school year 2020-2021. During administration of the 2021 SC READY assessment, Mauldin assessed 97 students, 52 males and 45 females. Disaggregated by race, there were 10 Hispanic/Latino (H), one Asian(A), 37 African American (AA), 39 Caucasian (C) and 10 Multiracial (M) students. Vision assessed 57 students, 21 males and 36 females. Disaggregated by race, there were three Hispanic/Latino, 17 African American, 35 Caucasian and two Multiracial students. Virtual assessed 106 students, 57 males and 39 females. Disaggregated by race, there were seven Hispanic/Latino, one American Indian, one Asian, 28 African American, one Native Hawaiian/Other Pacific Islander (NH), 65

Caucasian and three Multiracial students. Tables 4 shows the demographic data. To view the students' vertical scale scores for each innovation, see Appendix.

Table 4

Innovation Demographics

Innovation Name	Innovation Type	Number of Third Graders	Gender		Race						
			M	F	H	AI	AA	NH	C	M	A
Mauldin School of Excellence	College Readiness	97	52	45	10	0	37	0	39	10	1
Vision School of Excellence	PBL	57	21	36	3	0	17	0	35	2	0
Virtual School of the State	Virtual	106	57	39	7	1	28	1	65	3	1

Total Students = 260

Results of Descriptive Analyses

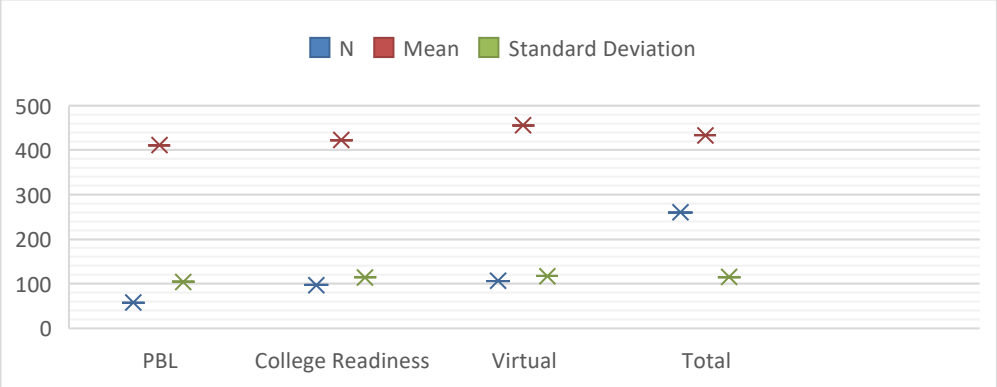
Research Question One: Does school innovation affect the reading achievement of third graders?

For school year 2020-2021, of the total third grade enrollment of schools included, 97 or 37.3% were enrolled in Mauldin Excellence College Readiness, 57 or 21.92% were enrolled in Vision School of Excellence PBL and 106 or 40.76% were enrolled in Virtual Academy of the State innovations. The mean vertical scale score for all innovations included in the sample was 433.56. For Vision PBL, the mean scale score was 410.80, 422.40 for Mauldin College Readiness, and 456 for Virtual Academy. Overall, third grade ELA scale scores ranged from 177 to 750. PBL innovation's scale scores ranged between 233 and 652, while Mauldin College Readiness innovations' scale

scores were between 177 and 750. Virtual Academy had a scale score range of 223-750. The overall standard deviation was 114.14. PBL had a standard deviation of 104.35, Mauldin 114.14, and Virtual had a standard deviation of 117.09. Results in Figure 7 indicate descriptive statistics do show school type does effect achievement.

Figure 7

Descriptive Statistics of 2021 Third Grade ELA SC Ready Performance



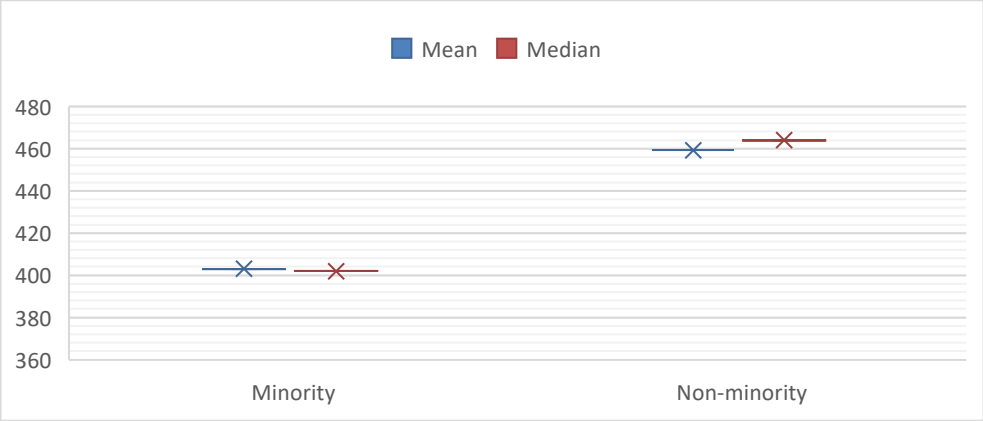
Research Question Two: *What factors impact the differences between reading achievement scores of third graders as measured by the SC READY assessment between Virtual Academy of the State, Vision School of Excellence, and Mauldin Excellence College Readiness innovations?*

Using descriptive statistics to understand how minority or non-minority status might be a factor in the reading achievement between the three innovations, the researcher compared the means of the total minority population to the total non-minority population. This data revealed minorities in the three schools have a mean vertical scale score of 403.04, with a standard deviation of 110.09 while their non-minority counterparts have a mean vertical scale score of 459.31 with a standard deviation of

112.12. Results in Figure 8 indicate descriptive statistics do show minority and non-minority status are factors in the achievement of third grade students.

Figure 8

Total Minority/Non-Minority Mean Vertical Scale Scores



School Factors. To determine if school related factors impact the reading achievement scores of third graders enrolled in Mauldin School of Excellence College Readiness, Vision School of Excellence PBL, and Virtual Academy of the State, data from surveys completed by teachers and reading coaches of the innovations included in the sample were analyzed. The survey asked respondents about their Read to Succeed endorsement, use of reading intervention programs as well as their satisfaction regarding the professional development in reading they received.

Respondents included one reading coach and one teacher from Vision innovation, one teacher and one reading coach from Virtual innovation and two teachers from Mauldin innovation. All but one teacher indicated they had received the Read to Succeed Endorsement. This teacher indicated that he/she was working on obtaining the endorsement, however. Figures 9 and 10 illustrate this data.

Figure 9

Survey Question: What is Your Current Role?

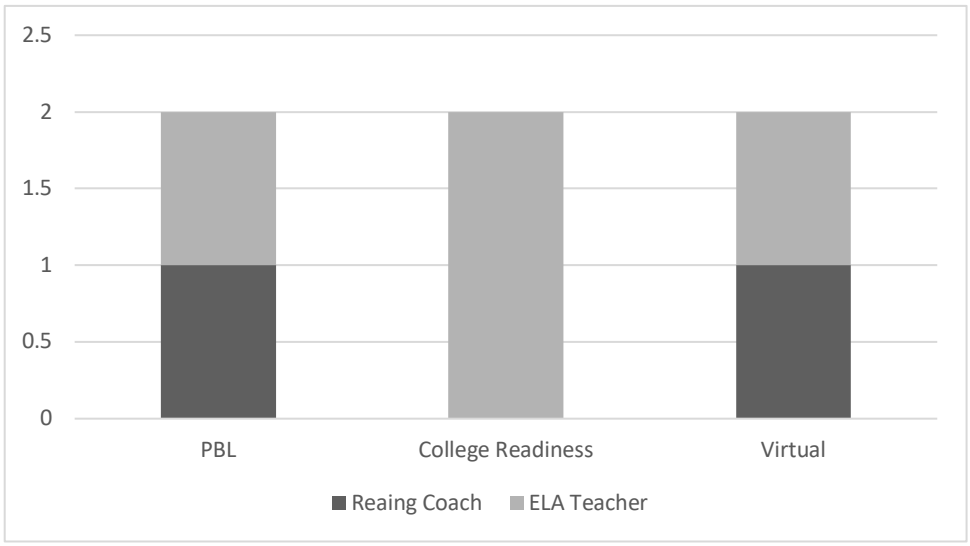
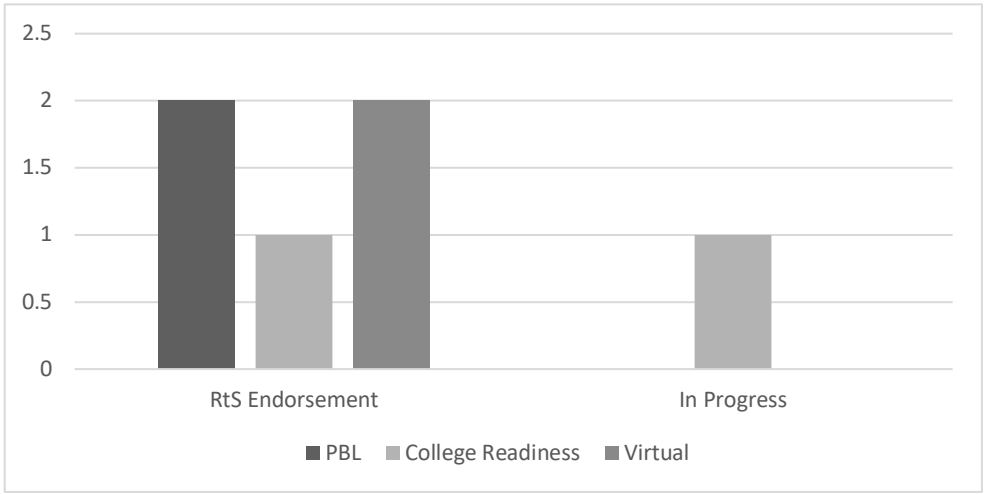


Figure 10

Survey Question: Do You Possess the Read to Succeed Endorsement?



The survey also revealed Vision PBL teachers and coaches use Fountas & Pinnell, Ortan-Gillingham, while listing IXL and Freckle as other programs used at their schools. Mauldin College Ready respondents reported the use of Fountas & Pinnell, Read 180,

Achieve 3000, Ortan-Gillingham, and listed LETTERS and Razkids as other programs used. Virtual innovation's respondents reported the use of Freckle and Razkids as programs used. Table 5 depicts the use of intervention programs used by each innovation.

Table 5

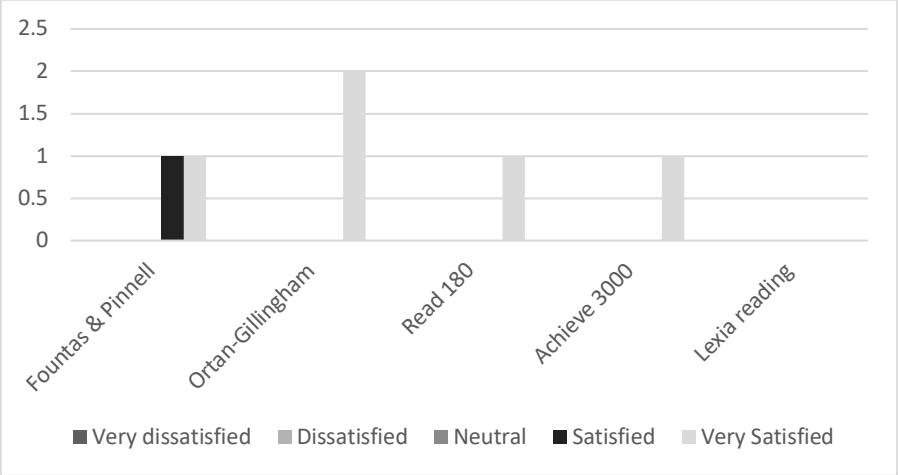
Survey Question: What Reading Program (s) Are Currently Used at Your School?

Reading Intervention Program	Innovation		
	Vision PBL	Mauldin College Ready	Virtual
Fountas & Pinnell	X	X	
Read 180		X	
Achieve 3000		X	
Lexia Reading			
Ortan-gillingham	X	X	
Other	IXL, Freckle	LETTERS, Razkids	Freckle, Razkids

Respondents were also asked to rate their satisfaction with the reading programs currently used at their school on a scale of one through five, with one being *very satisfied* and five being *not satisfied at all*. Vision's reading coach and Mauldin's ELA teachers reported being very satisfied with Fountas & Pinnel and Ortan-Gillingham, while Vision's teacher reported being satisfied with the programs. One of Mauldin's ELA teachers reported being very satisfied with Read 180, while the innovations' other ELA teacher reported being satisfied with the program. Finally, Mauldin's Vision's staff reported being very satisfied with Achieve 3000. This information can be viewed in Figure 11.

Figure 11

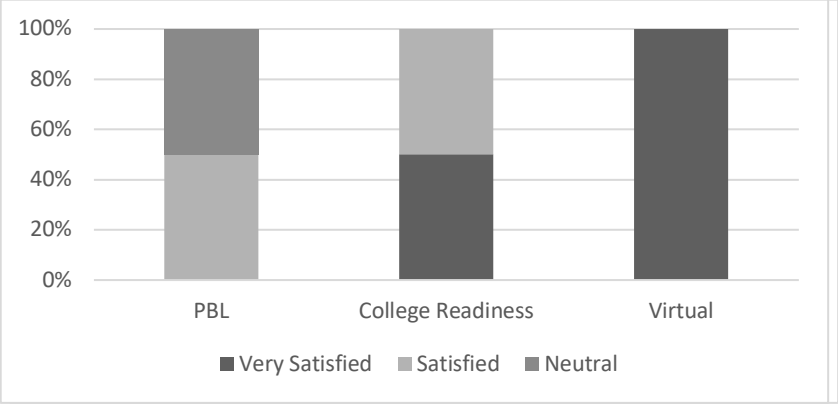
Survey Question: How Satisfied Are You with the Reading Programs Used At Your School?



Finally, respondents were asked to rate their satisfaction of the professional development in reading they received on a scale of one through five, with one being *very satisfied* and five being *not satisfied at all*. Virtual Academy's teacher and reading coach and one of Mauldin's teachers all reported they were very satisfied with the professional development they received. Vision's reading coach and one of Mauldin's teachers reported they were satisfied while Vision's teacher reported a neutral satisfaction regarding the professional development received. Satisfaction of provided professional development can be seen in Table 12.

Figure 12

Survey Question: How Satisfied Are You With Professional Development in Reading You Have Received?



Results of Inferential Analyses

Research Question Three: *How are SC READY ELA performance scores of third graders different between Virtual, Project Based Learning, and Mauldin College Readiness elementary innovations?*

The 2020-2021 ELA SC READY mean vertical scale scores or third grade students enrolled in each innovation were compared using a single factor analysis of variance (ANOVA). As presented in the first section of this chapter, in Table 5, WCSD's Virtual innovation had a higher mean scale score than Mauldin School of Excellence College Readiness and Vision School of Excellence PBL innovations. To determine the differences between the scores, a one-way ANOVA was conducted. The ANOVA test demonstrated there was a significant effect of school innovation on SC READY ELA performance for school year 2021 at the $p<.05$ level for the three conditions [$F(2, 256)=3.711$, $p=0.025$]. Effect size was determined by utilizing Eta squared calculations.

For the effect of school type on SC READY ELA performance, this analysis (η^2= .028) exceeded Eta squared convention for a small effect (η^2=.01) but did not meet the convention for a medium (η^2=.06) effect. Table 6 illustrates the result of the ANOVA as well as the Eta squared calculation.

Table 6

ANOVA: Third Grade SC READY 2021 Performance

Source of Variation	*SS*	*df*	*MS*	*F*	*P-value*	*F crit*
Between Groups	95641.98	2	47820.99	3.71117	0.02577414	3.031064
Within Groups	3298740.61	256	12885.7			
Total	3394382.6	258				

Eta squared= 95641.9795(SS effect/ 3298740.61(SS total) = 0.028

PBL and College Readiness

To compare individual innovations, two-sample *t-Test*s were used. The results of this study indicated there is a statistically significant difference between the mean vertical scale scores of students enrolled in Vision School of Excellence and Mauldin School of Excellence innovations. Specifically, Mauldin students (M=422.40, SD= 114.13) had higher mean vertical scale scores than Vision students (M=410.80, SD= 104.35). A two-samples *t*-Test revealed a t-statistic of –0.642 with a df=126 ($p<0.05$). The effect size for this analysis (*d*=.10) fell below Cohen's convention for a small effect (*d*=.20). The results of the *t*-test and post hoc analysis revealed a significant difference in the mean vertical

scale scores of PBL and College Readiness innovations. Table 7 illustrates the results of this *t*-Test and Cohen's *d* calculation.

Table 7

T-Test: Vertical Scale Score Means of PBL and College Readiness

	PBL	*College Readiness*
Mean	410.807018	422.402062
Observations	57	97
df	126	
t Stat	-0.6428393	

Cohen's d = (410.807 - 422.402)/109.349393 = 0.106036.

Virtual and College Readiness

The results of this study indicated that there is a statistically significant difference between the mean vertical scale scores of students enrolled in Mauldin School of Excellence and Virtual Academy of the State innovations. Specifically, Virtual students (M=456.00, SD=117.09) had a higher mean vertical scale score than Mauldin students (M=422.40, SD=114.13). A two-samples *t*-Test revealed a t-statistic of –2.069 with a df=200 ($p<0.05$). The effect size for this analysis (*d*=.29) exceeded Cohen's convention for a small effect (*d*=.20) but did not meet the convention for a medium (*d*=.50) effect. Table 8 illustrates the results of this *t*-Test and Cohen's *d* calculation.

Table 8

T-Test: Vertical Scale Score Means College Readiness and Virtual

	College Readiness	*Virtual*
Mean	422.402062	456.009434
Observations	97	106
df	200	
t Stat	-2.0698282	

Cohen's d = (456.0094 - 422.402)⁄115.614409 = 0.290685.

The results of the *t*-test and post hoc analysis revealed a significant difference between the mean vertical scale scores of students enrolled in Vision School of Excellence and Virtual Academy of the State innovations. Specifically, Virtual students (M=456.00, SD=117.09) had a higher mean scale score than Vision students (M=410.80, SD=104.35). A two-samples t-Test revealed a t-statistic of –2.525 with a df=127 ($p<0.05$). The effect size for this analysis (*d*=.40) exceeded Cohen's convention for a small effect (*d*= .20) but did not meet the convention for a medium (*d*= .50) effect. Table 9 illustrates the results of this *t*-Test and Cohen's *d* calculation.

Table 9

T-Test: Vertical Scale Score Means PBL and Virtual

	PBL	*Virtual*
Mean	410.807018	456.009434
Observations	57	106
df	127	
t Stat	-2.525423	

Cohen's *d* = (410.807 - 456.0094)⁄110.901084 = 0.407592

Race

To determine if minority and non-minority status impact the reading achievement of third graders enrolled in Mauldin School of Excellence College Readiness, Virtual Academy of the State, and Vision School of Excellence PBL innovations, two sample *t*-Test were run for each innovation to compare the scores of minority students to those of non-minority students. The mean vertical scale score of Vision School of Excellence's minority population was 368.09 while its non-minority population's mean vertical scale score was 437.65. The *t*-Test revealed a t-statistic of -2.647, with a df=49 ($p<0.05$). The results of the *t*-test and post hoc analysis revealed a significant difference between the mean vertical scale scores of minority and non-minority PBL students. Specifically, the PBL's minority students' mean vertical scale scores were significantly lower than those of their non-minority counterparts. The effect size for this analysis (*d*=.70) exceeded Cohen's convention for a medium effect (*d*=.50) but did not meet the convention for a large effect (*d*=.80). Table 10 outlines this analysis and Cohen's *d* calculation.

Table 10

T-Test: Vision PBL Groups

	Minority	*Non-Minority*
Mean	368.090909	437.657143
Observations	22	35
df	49	
t Stat	-2.6479854	

Cohen's *d* = (437 - 368.09)/98.009627 = 0.703094.

The mean vertical scale score for Mauldin School of Excellence's minority population was 405.7, and the non-minority population's mean vertical scale score was

446.2. The *t*-Test revealed a *t*-statistic of -1.719, with a df=81 (p>0.05). Although Mauldin College Readiness Innovation's minority population has a lower mean vertical scale score than the non-minority population, the result of this *t*-Test indicated that there is no statistically significant difference between the mean vertical scale scores for the two groups. The result of the t-test revealed a slight difference between the mean vertical scale scores of minority and non-minority College Readiness students. Table 11 shows the results of the analysis.

Table 11

T-Test: Mauldin College Readiness Groups

	Minority	*Non-minority*
Mean	405.701754	446.2
Observations	57	40
df	81	
t Stat	-1.7199303	

The mean vertical scale score for Virtual Academy's minority students was 418.475, while the mean score for non-minority students was 478.757. A two-sample *t*-Test was conducted to compare vertical scale scores of these two groups. The *t*-Test revealed a *t*-statistic of -2.60, with a df=79 (p<0.05). The result of this test indicated a statistically significant difference between the mean vertical scale scores of minority and non-minority students of Virtual Academy. Specifically, minority students had a smaller mean vertical scale score than non-minority students. Calculating the Cohen's *d* for the effect size revealed a medium effect size of .51. The results of the t-test and post hoc analysis revealed a significant difference between the mean minority and non-minority vertical scale of Virtual students. This data can be seen in Table 12.

Table 12

T-Test: Virtual Groups

	Minority	*Non-Minority*
Mean	418.475	478.757576
Observations	40	66
df	79	
t Stat	-2.6080364	

Cohen's d = (478 - 418.475)/114.623096 = 0.519311.

Validity Assurance

The researcher took a number of steps to ensure the validity of this study. First, the researcher examined a number of statistical analyses to determine which would be the most appropriate to effectively answer the research questions. Once the ANOVA and the t-Test were chosen, these statistical analyses were run multiple times to ensure accuracy. Finally, after all analyses were run, the researcher sought the assistance of a statistician who verified both the analyses and the results. As a result of these steps taken by the researcher, the reader can be assured that the findings of this study are both accurate and valid.

Summary

This chapter provided a detailed presentation of the findings of this causal comparative, nonexperimental research study. Research question one addressed whether innovation affects reading achievement. The results for this question indicated Virtual innovations positively impact the reading achievement of its students, as only students enrolled in this innovation had a mean vertical scale score indicating those students are

ready for the subsequent grade level and are also on track for college and career readiness. The other two innovations, Vision PBL and Mauldin College Readiness, both had mean vertical scale scores below 452 which indicates their students, typically approach readiness and require additional academic support to be prepared for the next grade level and to be on track for college and career readiness.

Research question two addressed the differences in the performance scores of students enrolled in Virtual, PBL, and College Readiness elementary school innovations. Using school type, significant differences were revealed when comparing each school. When PBL was compared to College Readiness, there was a statistically significant difference between the mean vertical scale scores of students enrolled in Vision School of Excellence PBL and Mauldin School of Excellence College Readiness innovations. While this difference was revealed and the significance was determined to be small, it should be noted that both College Readiness and PBL innovations had mean vertical scale scores indicating their students typically approach readiness and require additional academic support to be prepared for the next grade level and to be on track for college and career readiness.

When Virtual Academy was compared to Mauldin College Readiness, there was a statistically significant difference between the mean vertical scale scores of students enrolled in Virtual Academy of the State and Mauldin School of Excellence College Readiness innovations. The virtual innovation had a significantly higher mean vertical scale score than the College Readiness innovation. Although this significance was determined to be small, Virtual students on average are deemed ready for the subsequent

grade level and are also on track for college and career readiness, while College Readiness students only approach readiness.

When Virtual was compared to PBL, there was a statistically significant difference between the mean vertical scale scores of students enrolled in Virtual Academy of the State and Vision School of Excellence PBL innovations. The virtual innovation had a significantly higher mean vertical scale score than the PBL innovation. Although this significance was determined to be small, Virtual students on average are deemed ready for the subsequent grade level and are also on track for college and career readiness, while PBL students only approach readiness.

Research question three examined the factors outside of school type which may influence reading achievement. When considering minority and non-minority status, significant differences were revealed in the vertical scale scores of each group. Significant differences existed in the mean vertical scale scores between minority and non-minority students in all innovations. As the effect size of the differences ranged from small to medium, minority students enrolled in Vision PBL, Mauldin College Readiness, and Virtual innovations, on average approach readiness and require additional academic support to be prepared for the next grade level and to be on track for college and career readiness, while the innovations' non-minority students, on average, demonstrate readiness.

When considering school factors, such as teacher professional development, Read to Succeed Endorsement status, reading intervention programs and professional development, survey data was collected and analyzed. All staff members of all innovations reported that they either had the Read to Succeed endorsement or were

working towards it. Teachers and coaches from Vision PBL and Mauldin College Readiness reported a wide range of reading intervention programs used, while Virtual innovation reported the use of two. All staff reported satisfaction with the programs used and the professional development provided.

Chapter Five: Discussion

Introduction

The results of this study were presented and analyzed in chapter four. This chapter contains a comprehensive summary of the investigation, a discussion on the implications for practice and recommendation for future researchers. The chapter contains six sections: (a) research questions, (b) conceptual framework revisited, (c) interpretation of findings and implications, (d) limitations, (e) recommendations for further research and, (f) conclusion.

The purpose of this study was to examine the differences in reading achievement of WCSD's College Readiness, PBL, and Virtual innovations. To specify these differences more fully, factors such as school effects, reading intervention programs, and race were included. The instrument used was the 2021 SC READY ELA vertical scale scores for third graders. The population consisted of three charter schools in South Carolina, and the vertical scale scores of 260 students from these schools. Table 3, as previously referenced in Chapter two, is included here to remind readers of the vertical scale score explanations.

Table 3

ELA Vertical Scale Score Ranges

Grade	Exceeds	Meets	Approaches	Does Not Meet
3	540-825	452-539	359-451	100-358

Source: (SC READY n.d.-f)

Research Questions

Research Question One. Does school innovation affect the reading achievement of third graders?

Research Question Two. What factors impact the differences between reading achievement scores of third graders as measured by the SC READY assessment between Virtual Academy of the State, Vision School of Excellence, and Mauldin Excellence College Readiness innovations?

Research Question Three. How are SC READY ELA performance scores of third graders different between Virtual, Project Based Learning, and Mauldin College Readiness elementary innovations?

Conceptual Framework Revisited

Reading by third grade is vital to students' future academic success. It is this idea which informs the Read to Succeed legislation, the conceptual framework of the current study. The student scores included in this study belong to students who were in the third grade during the school year 2020-2021 and have all been directly or indirectly impacted by the Read to Succeed efforts of the innovations in which they were enrolled. As required by Read to Succeed reading plans, all innovations employ reading coaches and teachers who possess Read to Succeed endorsements or are working toward completion. This requirement insures those assisting to develop the literacy skills of students, are equipped with the skills and knowledge needed to effectively assess and analyze data and to provide impactful instruction and interventions when needed. Additionally, as also required by Read to Succeed legislation, all innovations have provided teachers and coaches with professional development opportunities in understanding and implementing

the characteristics of exemplary literacy classrooms. Lastly, as required by Read to Succeed reading plans, the innovations included in this study and according to their staff who participated in the survey, utilize several reading programs to support struggling readers. While it should be noted, some innovations utilized far more programs than others, the use of these interventions do align with Read to Succeed requirements.

Findings and Implications

The first research question in the study attempted to determine if school innovation affected the reading achievement of third graders. When examining the 2021 SC READY ELA performance for all schools, results indicated Virtual Academy (mean vertical scale score of 456) outperformed Mauldin School of Excellence College Readiness (mean scale score of 422.4) and Vision School of Excellence PBL (mean scale score of 410.8). Because of the significant differences in mean vertical scale scores of Virtual innovations and the other innovations in the study, it can be concluded that school type does impact reading achievement with Virtual Academy of The State having a positive and more significant impact. Virtual Academy's mean vertical scale score of 456 indicates that on average, its students are meeting performance expectations, are ready for the subsequent grade level, and are on track for college and career readiness. Mauldin School of Excellence's mean vertical scale score of 422.4 and Vision School of Excellence's vertical scare score of 410.8 indicate that, on average, third graders in these innovations are classified in the *Approaches* category and require additional academic support to be prepared for the next grade level and to be on track for college and career readiness.

These findings concur with research reviewed in Chapter two. The research of

Florida TaxWatch (2007), a nonprofit research organization, presented findings indicating students enrolled in virtual schools in Florida experienced higher gains than the student enrolled in brick-and-mortar schools in the state. Additionally, Shachar and Neumann (2003) posited that in more than 60% of cases, students attending school virtually outperform those students who, again, attend brick and mortar settings. While Shachar and Neumann (2003) found similar results as the current research, it should be noted the studies were different. Their study included grades 6-10 while the current research was limited to third grade.

Cavanaugh (1999) who summarized studies of distance education concluded students attending school virtually could expect to experience higher gains. His findings are similar to the findings in this research. The major difference between Cavanaugh's (1999) findings and the present study was his findings were derived from the synthesis of several studies which focused on virtual learning in K-12 setting, while in this study, the researcher investigated only third graders learning in this setting.

Discussion of Research Question Two

The second research question investigated the differences in reading achievement between the individual innovations. When comparing Vision School of Excellence PBL and Mauldin School of Excellence College Readiness a significant difference was revealed. Mauldin (422.4) had a higher mean vertical scale score than Vision (410.8). While this difference is significant, it is a small significance, as both innovations' mean scale scores fall below the *Meets* threshold. This indicates that on average, third graders are not meeting standards, but instead are approaching and require additional academic support to be prepared for the next grade level, and to be on track for college and career

readiness.

When comparing College Readiness and Virtual innovations, results indicated Virtual (456) students have a significantly higher mean vertical scale score than students enrolled in the College Readiness (422.4) innovation. While the effect size of this significance is considered small, it is worth noting that on average, students enrolled in College Readiness innovation approach readiness, while students enrolled in Virtual innovations, on average, demonstrate readiness for the subsequent grade level and are also on track for college and career readiness.

Finally, when the mean vertical scale scores of PBL (410.8) and Virtual (456) innovations were compared, a significant difference was again revealed between the means. As in the previous comparisons, the effect size of the difference is small, but nevertheless confirms student enrolled in PBL innovations, on average approach readiness as opposed to students enrolled in virtual platforms who, typically demonstrate readiness.

Discussion of Research Question Three

The third research question was designed to examine the factors which may impact the reading achievement of third graders in the three innovations.

Minority/Non-Minority

Results from descriptive statistics indicate when all innovations' vertical scale scores are compared by race, minority students (403.04) have a lower mean vertical scale score than that of non-minority students (459.31). This indicates minority students enrolled in WCSD's PBL, College Readiness and Virtual innovations are approaching readiness, as opposed to demonstrating readiness as their non-minority counterparts.

t-Test were run for each innovation to compare the scores of minority students to those of non-minority students. Those tests reveal similar findings to those of the descriptive statistics presented. Minority students in each innovation have a mean vertical scale score lower than that of non-minority students. Specifically, there are significant differences between the mean scores of minority and non-minority students at both Virtual and PBL innovations. The mean vertical scale score of Vision PBL's minority students (368.09) was significantly lower than that of the innovations non-minority students (437.65) revealing a medium effect size. While the difference between mean scale score was significant and the effect size was medium, it should be noted that students in both these groups are typically approaching readiness standards. This analysis reveals that minority and non-minority students at Vision PBL innovation, generally approach readiness standards in reading. Furthermore, the mean vertical scale score of Virtual Academy's minority students (418.475) was significantly lower than that of the innovation's non-minority students (478.75) revealing a medium effect size. This analysis reveals minority students at Virtual Academy of the State innovation typically approach readiness standards in reading, as opposed to their non-minority counterparts who, on average, meet those same standards.

These findings echo the fears of early proponents to school choice as well as align with research reviewed in Chapter two. Goldharber (1999) posited that those who were against school choice feared that it would not benefit the underserved populations, which has been revealed in the study. The research of Bifulco and Ladd (2006), Zimmer and Buddin (2005) and Shakeel and Peterson (2021) suggest that charter schools are not experiencing significant achievement gains, while minority students enrolled in them are

not experiencing achievement gains at the rate of their non-minority counterparts.

Bifulco and Ladd (2006) reported that minorities enrolled in charter schools can expect to have lower achievement gains than non-minority student. Their research goes on to suggest children in general have lower achievement in charter schools. Shakeel and Peterson (2021) found no significant difference in the scores in reading and math reported by the National Assessment of Education Progress for fourth and eighth grade charter students. Shakeel and Peterson (2021) also found the average test scores for black students in charter schools and TPS were the lowest among student groups. Finally, the research of Zimmer and Buddin (2005) concluded charter schools are not improving the achievement of minorities students, but instead, are having a negative effect on performance on both blacks and whites, with this effect being substantially larger for minorities.

Survey Data

What is Your Current Role?

For this survey question, respondents reported they were either an ELA teacher or a reading coach. The data revealed that all or most innovations employed a reading coach, which is required by Read to Succeed guidelines. Mauldin College Readiness does employ a reading coach, but this individual did not participate in the survey. Additionally, most staff members reported they had received the Read to Succeed endorsement while one reading teacher from Mauldin indicated she/he was working toward this endorsement. Again, as required by Read to Succeed legislation, all teachers and reading coaches must possess Read to Succeed endorsement. The analysis of this

data indicates that WCSD innovations are following Read to Succeed guidelines regarding employed staff and their endorsements.

What Reading Program(s) Are Currently Used at Your School?

The responses for this question indicated the innovations use a wide range of reading intervention programs. Mauldin and Vision reported the use of four or more programs each, while Virtual reported the use of only two programs. Additionally, all respondents reported feeling satisfied or very satisfied with the reading programs used at their innovations. While all innovations are providing reading intervention programs to their students, as required by Read to Succeed legislation, the Virtual innovation uses far less programs but experienced greater reading success as vertical score analyses show.

How Satisfied Are You With Professional Development in Reading You Have Received?

As required by Read to Succeed legislation, certified teaching staff must be provided with professional development opportunities to assist them in delivering reading instruction to students. Analysis of this question revealed satisfaction with most staff members with one respondent reporting a neutral feeling regarding satisfaction. With this data, it can be inferred that WCSD and its innovations are providing certified teaching staff with opportunities for professional development, as required by Read to Succeed legislation.

Limitations

This study's findings should be considered in light of some limitations. One limitation was the closed-ended questions of the survey. As a result, the responses prevented the researcher from gaining conclusive results regarding school factors

impacting reading achievement. Study results were also limited by the sample size for vertical scale scores, as they varied based on enrollment for each innovation. The results, therefore, were impacted by the potential discrepancies in the number of vertical scale scores included in this study. A further limitation of this quantitative study is not all charter schools use identical reading programs, which may affect student achievement comparisons. For example, some schools may use programs such as Orton Gillingham, Read 180, Fountas & Pinnell, et cetera. The use of these programs or the lack thereof might contribute to the study's results. Finally, structural elements for each innovation are different (i.e. school size, teachers, student teacher ratio, expenditures, time, method of teacher certification, and student type), which may also affect student achievement comparisons.

Recommendations for Further Research

This study provides a basis for routine research to compare the effects of WCSD's virtual, PBL and College Readiness charter innovations on reading achievement. Further research should include examinations into all WCSC's innovations as well as all charter schools in South Carolina. This information would yield valuable data on the progress being made by charter schools based on innovation or school type. It would also enable policy makers to routinely examine the effectiveness of charter schools in South Carolina. Investigating more thoroughly, the achievement of minority students in charter and TPS is an additional area of research which would also yield useful information. Further research on how South Carolina charter schools compare to the state's TPS would better inform policy makers of the actual impacts of charter schools on the educational outcomes of South Carolina's students. Should those results show no or

negative differences between TPS and charters, significant considerations and actions would need to occur to determine the future of South Carolina charter schools. Further research on the number of reading programs used and the impact on achievement might yield findings on what is too much or not enough when selecting intervention programs. Additionally, thorough examination of highly effective charter schools to examine their practices, would help illuminate ways to improve the performance of all South Carolina charter schools. Finally, to support the reading achievement of all students, further research should include best practices for supporting subgroups. The current research indicates that minorities are lagging their nonminority counterparts when it comes to reading achievement within the innovations included in this study. Further research would assist in closing the state's achievement gap while increasing opportunities for all students.

Conclusion

As reading proficiency is paramount to student achievement, educational accountability systems hold states and districts responsible for raising student achievement. Today, South Carolina's school system ranks 44th in the nation, outperforming only six other states (U.S. News Ranks the 50 States, n.d.). The state of education in South Carolina has not improved much since 1994, when South Carolina was one of 11 states to score significantly lower than the national average in reading (NAEP State Profiles, n.d.). According to South Carolina Code of Laws (n.d), to improve student learning and to assist South Carolina in reaching academic excellence, Governor David Beasley passed the 1996 Charter school act, giving South Carolina parents options, through charter schools, when it came to educating their students. Twenty-seven years

later, there are 93 charter schools serving approximately 40,000 students. Approximately 26% of SC charter schools are operated by local school districts while, about 8% are authorized by Limestone Charter Association, 41% are authorized by South Carolina Public Charter School District, and approximately 26% are authorized by Charter Institute at Erskine (*Regional School Directory*, n.d.).

With the 1996 passing of the Charter School Act, and the 2014 passing of Act 284 (Read to Succeed), Congress, in 2015, passed the Every Student Succeeds Act (ESSA) as an amendment to the Elementary and Secondary Education Act (ESEA) which intended to replace the No Child Left Behind law. The act requires each state complete a plan outlining accountability measures. Additionally, to ensure South Carolina students are prepared for success after graduating high school, the state's department of education established the *Profile of the South Carolina Graduate*. This profile outlines the skills, knowledge, and characteristics required for young people to be successful and competitive. Essential to the components of the profile is reading proficiency. To ensure students possess the knowledge and skills of a *South Carolina Graduate*, they must be proficient readers and writers (State of South Carolina Department of Education 2021).

In preparing students to become proficient readers, the state has set goals for 3rd-8th grade students' outcomes on the states' SC Ready Assessment. According to the state's 2035 goals, 90% of students will score at level 2 (Approaches Expectations) or higher on the ELA state summative assessment, while by the same year, 70% of students will score at level 3 (Meets Expectations) or higher (South Carolina Department of Education, 2018). Regarding the 2020-2021 ELA state summative assessment for WSCD innovations included in the current study, 25.4% of students approach expectations,

45.4% meet expectations, and 29.2% do not meet expectations. This information can be seen in Table 13.

Table 14

WCSD 2021 Score Levels and 2035 Goals

Innovation	2021 SC READY	2035 Goals
Vision PBL	35% Meet 30% Approaches 35% Does Not Meet	70% Meet 90% Approaches
Mauldin College Readiness	44% Meet 26% Approaches 30% Does Not Meet	70% Meet 90% Approaches
Virtual Academy	52% Meet 23% Approaches 25% Does Not Meet	70% Meet 90% Approaches

WCSD and these innovations have a significant challenge ahead of them to ensure students meet the goals set by Every Student Succeeds legislation. All students have the right to a high-quality education. Because reading is a fundamental skill serving as the cornerstone of that education, it is imperative that the most effective practices are studied and utilized when teaching our state's children to read. Parents have the choice of different school types from public, private, charter, virtual, PBL, etc. Regardless of the option chosen, parents should be assured the schools they choose are capable of providing high-level reading programs. If South Carolina students are to be adequately prepared for success after graduating high school and meet the profile of a South Carolina Graduate, equipping them with skills to reach reading proficiency is essential.

References

About NAEP. (n.d.). https://www.nagb.gov/naep/about-naep.html

About. (n.d.). South Carolina Department of Education. (n.d.). Retrieved March 16, 2023, from https://ed.sc.gov/about/.

About. (n.d.). South Carolina Public Charter School District. Retrieved March 16, 2023, from https://sccharter.org/about/.

Active Student Headcounts. (n.d.). South Carolina Department of Education. Retrieved April 1, 2023, from https://ed.sc.gov/data/other/student-counts/active-student-headcounts/

Ahn, J. (2016). *Enrollment and achievement in Ohio's virtual charter schools.* Thomas B. Fordham Institute. https://files.eric.ed.gov/fulltext/ED570139.pdf.

American Federation for Children. (n.d.) *School choice facts*. https://www.schoolchoicefacts.org/?gclid=cjwkcajwznoabhaceiwad7tb6gv4i3qahlugbaik7ko_5_npaht1szox96f7zsdxrguforgn-hcjfrocacsqavd_bwe

Analysis of the impact of reading programme on disadvantaged pupils. (2022). *Education Journal*, 479, 15.

Anderson, L., Adelman, N., Yamashiro, K., Donnelly, M., Finnigan, K. (2000). *Evaluation of the public charter schools program: Year one evaluation report.* U.S. Department of Education. https://www2.ed.gov/rschstat/eval/choice/pcsp-year1/year1report.pdf

Arsen, D., Plank, D., & Sykes, G. (1999). *School choice policies in Michigan: The rules matter*. East Lansing, MI: Center on School Choice and Educational Change, Michigan State University.

Barron B., & Darling-Hammond, L. (2008). *Teaching for meaningful learning.* The George Lucas Educational Foundation. https://files.eric.ed.gov/fulltext/ED539399.pdf

Barshay, J., Flynn, H., Sheasley, C., Richman, R., Bazzaz, D., & Griesbach, R. (2021). *America's reading problem: Scores were dropping even before the pandemic. Remote classes made it worse.* The Hechinger Report. https://hechingerreport.org/americas-reading-problem-scores-were-dropping-even-before-the-pandemic/

Bifulco, R. and Ladd, H. (2006). *The impacts of charter schools on student achievement: Evidence from North Carolina*. American Education Finance Association. https://www.researchgate.net/publication/228363043_The_Impacts_of_Charter_Schools_on_Student_Achievement

Birgisdottir, F., Gestsdottir, S., & Geldhof, G. (2020). Early predictors of first and fourth grade reading and math: The role of self-regulation and early literacy skills. *Early Childhood Research Quarterly*, 53, 507-519. https://doi.org/10.1016/j.ecresq.2020.05.001

Blumenfeld, P. C., Soloway, E., Marx, R., W., Krajcik, J. S., Guzdial, M., & Palincsar, A. (1991). Motivating project-based learning: Sustaining the doing, supporting the learning. *Educational Psychologist,* 26(3), 369-398.

Buck Institute For Education PBLWorks. (n.d). *What is PBL?* https://www.pblworks.org/what-is-pbl

Butcher, J., & Medley, J. (2012). Cheating the charters. *Education Next*. Spring 2012. https://web.s.ebscohost.com/ehost/pdfviewer/pdfviewer?vid=0&sid=b33aa662-9042-4c8a-9041-769cca34839f%40redis

Cavanaugh, C. (1999). The effectiveness of interactive distance education technologies in K-12 learning: A meta-analysis. *International Journal of Educational Telecommunications*, 7(1), 73-78. https://files.eric.ed.gov/fulltext/ED430547.pdf

Charter Institute at Erskine. (n.d.). *Our schools.* Retrieved November 15, 2022, from https://erskinecharters.org/our-schools/

Chen, F. & Harris, D. (2021). *The combined effects of charter schools on student outcomes: A national analysis of school districts.* National Center for Research on Education Access and Choice. https://files.eric.ed.gov/fulltext/ED622023.pdf

Cheung, A. & Slavin, R. (2013). Effects of educational technology applications on reading outcomes for struggling readers: A best-evidence Synthesis *Reading Research Quarterly,* 48(3), 277-299. https://web.p.ebscohost.com/ehost/pdfviewer/pdfviewer?vid=3&sid=cb2d9594-791e-49b1-9d68-0d31178bbc5d%40redis

Center For Research on Education Outcomes. (2021). *Charter school performance in South Carolina 2019.* CREDO. https://credo.stanford.edu/wp-content/uploads/2021/08/sc_report_final_08292019.pdf

Code of Laws - Title 59 - Chapter 1 - General Provisions. (n.d.). Retrieved April 1, 2023, from https://www.scstatehouse.gov/code/t59c001.php

Code of Laws - Title 59 - Chapter 18 - Education Accountability Act. (n.d.). Retrieved April 1, 2023, from https://www.scstatehouse.gov/code/t59c018.php

Code of Laws – Title 59 - Chapter 40 - Charter School. (n.d). Retrieved April 1, 2023, from https://www.scstatehouse.gov/code/t59c040.php

Code of Laws - Title 59 - Chapter 155 - South Carolina Read To Succeed Act. (n.d.). Retrieved April 1, 2023, from https://www.scstatehouse.gov/code/t59c155.php

Daniels, T. (2009). SC Charter School District gets shortchanged. *Herald Journal.* https://www.goupstate.com/story/opinion/columns/2009/01/21/sc-charter-school-district-gets-shortchanged/29485411007/

DeAngelis, C. A., Wolf, P. J., Maloney, L. D., & May, J. F. (2020). *Charter school funding: Inequity surges in the cities.* School Choice Demonstration Project. https://files.eric.ed.gov/fulltext/ED612068.pdf

Education Oversight Committee. (2018). *Guide to the SC school report cards.* https://eoc.sc.gov/sites/eoc/files/Documents/RC%202018%20Info/School%20Report%20Cards%20Guide.11092018.pdf

Edwards, T. (1998). Review of Experiencing School Mathematics: Teaching Styles, Sex and Setting, by J. Boaler. *British Journal of Sociology of Education*, *19*(4), 587–590. http://www.jstor.org/stable/1393452

English Language Arts – Teaching Works Resource Library. (n.d.). Retrieved March 16, 2023, from https://library.teachingworks.org/curriculum-resources/subjects/english-language-arts/

Fast Facts about Online Learning. (2009). In International Association for K-12 Online Learning. International Association for K-12 Online Learning. https://files.eric.ed.gov/fulltext/ED509627.pdf

Ferdig, R.E., DiPietro, M., & Papanastasiou, E. (2005). Teaching and Learning in Collaborative Virtual High Schools. In R. Smith, T. Clark, & R.L. Blomeyer (Eds.), *A Synthesis of Research on K-12 Online Learning*. Naperville, IL: Learning Point Associates. http://www.ncrel.org/tech/synthesis/synthesis.pdf

Field, A. (2018). *Discovering statistics using IBM SPSS statistics*. SAGE.

Florida TaxWatch. (2007). *Final report: A comprehensive assessment of Florida virtual school.* https://www.aurora-institute.org/wp-content/uploads/final-report-a-comprehensive-assessment.pdf

Foley, E., Mishook, J. & Lee, J. (2013). Developing college readiness within and across school districts: The federal role. *Voices in Urban Education*, 7-17. https://files.eric.ed.gov/fulltext/EJ1046350.pdf

Foundational Literacy Skills Plan. (n.d.). Retrieved April 2, 2023, from http://btcs.ss18.sharpschool.com/departments/curriculum_instruction/foundational_literacy_skills_plan

Fraenkel, J., Wallen, N., & Hyun, H. (2012). *How to design and evaluate research in education.* (8th ed.). McGraw-Hill

Friedman, M. (1955). *The role of government in education*. Ed Choice. https://www.edchoice.org/who-we-are/our-legacy/articles/the-role-of-government-in-education/

Friedman, M. (1962). *Capitalism and freedom*. Chicago: University of Chicago Press.

Friedman, M., & Friedman, R. (1980). *Free to choose: A personal statement*. New York: Harcourt Brace Jovanovich, Inc.

Gall, M., Gall, J. & Borg, W. (2003). *Educational research, an introduction.* (7th ed.). Pearson.

Gay, L., Mills, G., & Airasian, P. (2012). *Educational research: Competencies for analysis and applications.* (10th ed.). Pearson.

Gelman, S. (2022). *School zone: What is the Virginia Literacy Act?* WTOP News. https://wtop.com/education/2022/05/school-zone-what-is-the-virginia-literacy-act/

Goldhaber, D.D. (1997). School choice as educational reform. *Phi Delta Kappan*, 79(2), 143-147.

Goldhaber, D. (1999). School choice: An examination of the empirical evidence on achievement, parental decision making, and equity. *Educational Researcher*, 28(9) 16-25.

Goldhaber, D., & Eide, E. (2002). What do we know (and need to know) about the impact of school choice reforms on disadvantaged students? *Harvard Educational Review*, 72(2), 157-176.

Graduation Rate - SC School Report Card. (n.d.). https://screportcards.com/overview/academics/graduation-rate/?q=eT0yMDIyJnQ9UyZzaWQ9MDAwMA

Griffith, D. (2019). *Rising tide: Charter school market share and student achievement.* The Thomas B. Fordham Institute. https://fordhaminstitute.org/sites/default/files/publication/pdfs/20190926-rising-tide-charter-school-market-share-and-student-achievement-1_0.pdf

Gultekin, M. (2005). The effect of project-based learning on learning outcomes in the 5th grade social studies course in primary education. *Educational Sciences: Theory and Practice*, 5(2), 548-557. https://web.s.ebscohost.com/ehost/pdfviewer/pdfviewer?vid=0&sid=4888f115-ccea-4582-a382-175321c5de05%40redis

Guyette, J. (2017). *Erskine establishes Charter Institute*. *Erskine College.* https://www.erskine.edu/2017/07/27/erskine-establishes-charter-institute/

Hackmann, D. G., Malin, J. R., & Gilley, D. (2018). Career academies: Effective structures to promote college and career readiness. *The Clearing House*, *91*(4/5), 180–185. https://doi.org/10.1080/00098655.2018.1480196

Hernandez, D. (2011). *Double jeopardy: How third-grade reading skills and poverty influence high school graduation.* The Annie E. Casey Foundation. https://files.eric.ed.gov/fulltext/ED518818.pdf

Herold, B. (2021). *Full-time virtual schools: still growing, still struggling, still resisting oversight*. Education Week. https://www.edweek.org/policy-politics/full-time-virtual-schools-still-growing-still-struggling-still-resisting-oversight/2021/05

Home. (n.d.). South Carolina Public Charter School District. Retrieved April 1, 2023, from https://sccharter.org/

Hoxby, C.M., (1998). *Analyzing school choice reforms that use America's traditional forms of parental choice.* In P.E. Peterson and B.C. Hassel, (Eds.) Learning from school choice (pp. 133-157). Washington, D.C: Brookings Institution.

Hoxby, C. M. (2001). Rising tide: new evidence on competition and the public schools. *Education Next*, 1(4), 68-74.

Hoxby, C.M., Rockoff, J. (2005). Findings from the city of big shoulders. *Education Next*. (n.d.). Retrieved February 5, 2023, from https://www.educationnext.org/findingsfromthecityofbigshoulders/

HR 650: Evidence Based Literacy Study Committee – Science Lookup. (n.d.). Retrieved April 2, 2023, from https://sciencelookup.org/knowledge-base1/hr-650-evidence-based-literacy-study-committee/

International Association for K-12 Online Learning, (n.d.). *Fast facts about online learning.* https://files.eric.ed.gov/fulltext/ED509627.pdf

Kahlenbert, R., & Potter, H. (2014). Restoring Shanker's Vision for Charter Schools. *American Educator*, 4-13.

Kindergarten Readiness Assessment (KRA). (n.d.). South Carolina Department of Education. Retrieved March 16, 2023, from https://ed.sc.gov/tests/elementary/kindergarten-readiness-assessment-kra/

Kolderie, T. (1990). Beyond choice to new public schools: Withdrawing the exclusive franchise in public education (8). Washington, DC: *Progressive Policy Institute.* https://files.eric.ed.gov/fulltext/ED327914.pdf

Kolderie, T. (2005). *Ray Budde and the origins of the charter concept.* Education Evolving. https://www.educationevolving.org/pdf/Ray-Budde-Origins-Of-Chartering.pdf

Krajcik, J. S., Blumenfeld, P. C., Marx, R.W., & Soloway, E. (1994). A collaborative model for helping middle grade science teachers learn project-based instruction. *The Elementary School Journal,* 94(5),83-497. https://www.jstor.org/stable/1001838?seq=3#metadata_info_tab_contents

Krowka, S., Hadd, A., & Marx, R. (2017). *"No Excuses" charter schools for increasing math and literacy achievement in primary and secondary education*. Campbell Collaboration. https://files.eric.ed.gov/fulltext/ED586234.pdf

Lesnick, J., Goerge, R., Smithgall, C., & Gwynne, J. (2010). *Reading on grade level in third grade: How is it related to high school performance and college enrollment?* Chicago: Chapin Hall at the University of Chicago. https://www.chapinhall.org/wp-content/uploads/Reading_on_Grade_Level_111710.pdf

Lexile Levels: What Parents Need to Know. (n.d.). Retrieved April 4, 2023, from https://www.scholastic.com/parents/books-and-reading/reading-resources/book-selection-tips/lexile-levels-made-easy.html

Lynch, M. (2020, March). *What is College-Readiness?* The Edvocate. https://www.theedadvocate.org/what-is-college-readiness/

Mathis, D. (2021, April). *2020-21 Mandatory third grade retention guidance*. South Carolina Department of Education. https://ed.sc.gov/newsroom/school-district-memoranda-archive/2020-21-mandatory-third-grade-retention-guidance/2020-21-mandatory-third-grade-retention-guidance-memo/#:~:text=As%20a%20result%20of%20school,the%202019%E2%80%9320%20school%20year.

McHugh, B. & Stringfield, S. (1999). *Three-year analysis of implementation and effects in five schools. Core Knowledge curriculum: Three-year analysis of implementation and effects in five schools.* Center of Research on the Education of Students Placed At Risk. https://files.eric.ed.gov/fulltext/ED435766.pdf

Measures of Academic Progress (NWEA MAP). (n.d.). Retrieved April 4, 2023, from https://www.wenatcheeschools.org/assessment/map-measures-of-academic-progress

Miles, J and Shevlin, M (2001). *Applying regression and correlation: A guide for students and researchers.* Sage: London.

Miller, L. J. (2020). *The past and future funding of charter schools in South Carolina.* Education Oversight Committee. https://dc.statelibrary.sc.gov/bitstream/handle/10827/34209/EOC_Past_and_Future_Funding_of_Charter_Schools_2020-06.pdf?sequence=1&isAllowed=y

Minority Definition. (n.d.). Law Insider. Retrieved March 03, 2023, from https://www.lawinsider.com/dictionary/minority

Mishkind, A. (2014, September). *Overview: State definitions of college and career readiness*. American Institutes for Research. https://files.eric.ed.gov/fulltext/ED555670.pdf

NAEP State Profiles. (n.d.). Retrieved April 2, 2023, from https://www.nationsreportcard.gov/profiles/stateprofile

NAEP 2019 Reading State Snapshot Report Grade 8. (n.d.-a). *https://nces.ed.gov/nationsreportcard/subject/publications/stt2019/pdf/2020014SC8.pdf*

NAEP 2019 Reading State Snapshot Report Grade 4. (n.d.-b). https://nces.ed.gov/nationsreportcard/subject/publications/stt2019/pdf/2020014SC4.pdf

Nathan, J. (1996). *Charter schools: Creating hope and opportunity for American education*. San Francisco: Jossey-Bass.

National Alliance for Public Charter Schools, Colorado League of Charter Schools, National Association of Charter School Authorizers and Center for Research on Education Outcomes. (2008 June). *A framework for academic quality. A report from the National Consensus Panel of Charter School Academic Quality.* https://www.publiccharters.org/sites/default/files/migrated/wp-content/uploads/2014/01/NAPCS_CSQC_Report_20110402T222336.pdf

National Commission on Excellence in Education. (1983, April). *A nation at risk: The imperative for educational reform.* United States Department of Education. https://edreform.com/wp-content/uploads/2013/02/A_Nation_At_Risk_1983.pdf

Non-minority Definition. (n.d.). *Law Insider*. Retrieved March 03, 2023, from https://www.lawinsider.com/dictionary/minority

Overview - SC School Report Card. (n.d.). https://screportcards.com/overview/?q=eT0yMDE5JmQ9NDcwMSw0ODAxJmlzQ29tcGFyZT10cnVl

Price, R. A. (2014). Third Grade Reading Guarantee lays the foundation for a top-notch education. *Michigan Reading Journal*, *47*(1), 41–42. https://search.ebscohost.com/login.aspx?direct=true&AuthType=sso&db=eft&AN=100564178&site=ehost-live&custid=s8462687

Read to Succeed. (n.d.). South Carolina Department of Education. Retrieved April 1, 2023, from https://ed.sc.gov/instruction/early-learning-and-literacy/read-to-succeed/

Reading Plans (State, district, and school). (n.d.). South Carolina Department of Education. https://ed.sc.gov/instruction/early-learning-and-literacy/read-to-succeed/reading-plans-state-district-and-school/

Reeves, R. (2014). *What was the impact of the Achieve 3000 literacy program on student reading performance, 2013-2014?* Houston Independent School District, Department of Research and Accountability. https://files.eric.ed.gov/fulltext/ED598397.pdf

Regional School Directory. (n.d.). Public Charter School Alliance of South Carolina. Retrieved April 1, 2023, from https://www.sccharterschools.org/school-directory

Rogers, W. (2002, July 1). *South Carolina charter school: Five-year evaluation report.* South Carolina Department of Education. https://dc.statelibrary.sc.gov/bitstream/handle/10827/28726/DOE_Charter_Schools_2002-7-1.pdf?sequence=1&isAllowed=y

Rosenkrans, K. (2016, May 5). *It's time to give charter schools equitable funding.* Ed Post. https://www.edpost.com/stories/its-time-to-give-charter-schools-equitable-funding

SC Administrative Law Court - Home. (n.d.). Retrieved April 1, 2023, from https://www.scalc.net/

Schlesinger, N. & Gray, S. (2017). The impact of multisensory instruction on learning letter names and sounds, word reading, and spelling. *Annals of Dyslexia*, 67(3), 219-258.https://doi.org/10.1007/s11881-017-0140-z

Schwartz, S. (2021). New curriculum review gives failing marks to two popular reading programs. *Education Week*, 41(15), 14–15.

Shachar, M., & Neumann, Y. (2003). Differences between traditional and distance education academic performances: A meta-analytic approach. *International Review of Research in Open and Distance Learning*, 4(2). https://www.researchgate.net/publication/26468338_Differences_Between_Traditional_and_Distance_Education_Academic_Performances_A_Meta-Analytic_Approach

Shakeel, M.D., & Peterson, P.E. (2021). Charter schools show steeper upward trend in student achievement than district schools. *Education Next*, 21(1), 40-47. https://www.educationnext.org/charter-schools-show-steeper-upward-trend-student-achievement-first-nationwide-study/

Smith, M. L., Mann, M. J., Georgieva, Z., Curtis, R., & Schimmel, C. J. (2016). What counts when it comes to school enjoyment and aspiration in the middle grades. *Research in Middle Level Education*, 39(8). https://www.tandfonline.com/doi/full/10.1080/19404476.2016.1226100

Smith, O. P., & Gunnlaugsson, R. M. (2021, December). *Charting the course: The future of South Carolina K-12 education funding.* Palmetto Promise Institute. https://palmettopromise.org/wp-content/uploads/2021/12/PPI_12.14.21_Meeting-the-

Needs-of-South-Carolina%E2%80%99s-Public-Charter-School-Students-FULL-REPORT.pdf

Smith, R., Clark, T. & Blomeyer, R.L. (2005, November). *A synthesis of research on K-12 online learning.* Learning Point Associates. http://www.ncrel.org/tech/synthesis/synthesis.pdf

South Carolina College- and Career-Ready Assessments (SC READY). (n.d.). South Carolina Department of Education. https://ed.sc.gov/tests/middle/sc-ready/

South Carolina Department of Education. (2015, June 10). *South Carolina state reading plan.* https://ed.sc.gov/data/reports/literacy/scde-literacy-reports/state-reading-plan-and-proficiency/original-reading-plan/

South Carolina Department of Education. (2020, June). *South Carolina state reading plan and annual proficiency update.* https://ed.sc.gov/data/reports/literacy/scde-literacy-reports/state-reading-plan-and-proficiency/2020-reading-plan-and-proficiency-report/

State Scores by Grade Level. (n.d.-a). South Carolina Department of Education. https://ed.sc.gov/data/test-scores/state-assessments/sc-ready/2016/state-scores-by-grade-level/

South Carolina Department of Education. (2021, November). *South Carolina state reading plan and annual proficiency update.* https://ed.sc.gov/data/reports/literacy/scde-literacy-reports/state-reading-plan-and-proficiency/2021-reading-plan-and-proficiency-report/

Speece, D. L., & Ritchey, K. D. (2005). A longitudinal study of the development of oral reading fluency in young children at risk for reading failure. *Journal of Learning Disabilities*, *38*(5), 387–399.

Stallings, T., & Weiss, S. (2018, March 30). *Is Read to Achieve making the grade? An assessment of North Carolina's elementary reading proficiency initiative.* William and Ida Friday Institute for Educational Innovation. https://www.fi.ncsu.edu/resources/is-

State Scores by Grade Level. (n.d.-b). South Carolina Department of Education. https://ed.sc.gov/data/test-scores/state-assessments/sc-ready/2017/state-scores-by-grade-level/

read-to-achieve-making-the-grade-an-assessment-of-north-carolinas-elementary-reading-proficiency-initiative/

Student Achievement Definition and Meaning. (n.d.). Top Hat. Retrieved April 1, 2023, from https://tophat.com/glossary/s/student-achievement/

Summers, E. J., & Dickinson, G. (2012, March 27). A longitudinal investigation of project-based instruction and student achievement in high school social studies. *Interdisciplinary Journal of Problem-Based Learning*, 6(1), 82-103. profilehttps://docs.lib.purdue.edu/ijpbl/vol6/iss1/6/

Team, M. S. (n.d.). *What Does Virtual School Look Like?* Retrieved April 1, 2023, from https://www.methodschools.org/blog/what-does-virtual-school-look-like

The Campaign for Grade-Level Reading. (n.d.). *Third grade reading success matters.* http://gradelevelreading.net/FBLDL

Traditional Public School Definition. (n.d.). Law Insider. Retrieved March 16, 2023, from https://www.lawinsider.com/dictionary/traditional-public-school

U.S. Department of Education. (2009). *What Works Clearinghouse Intervention Report: Lexia Reading.* Institute of Education Sciences. https://ies.ed.gov/ncee/wwc/Docs/InterventionReports/wwc_lexia_063009.pdf

U.S. Department of Education. (2010). *What Works Clearinghouse Intervention Report: Orton-Gillinham-based Strategies*. Institute of Education Sciences. https://ies.ed.gov/ncee/wwc/Docs/InterventionReports/wwc_ortongill_070110.pdf

U.S. Department of Education. (2016). *What Works Clearinghouse Intervention Report: READ 180.* Institute of Education Sciences. https://ies.ed.gov/ncee/wwc/docs/interventionreports/wwc_read180_112916.pdf

U.S. Department of Education. (2017). *What Works Clearinghouse Intervention Report: Leveled Literacy Intervention.* Institute of Education Sciences. https://ies.ed.gov/ncee/wwc/Docs/InterventionReports/wwc_leveledliteracy_091917.pdf

U.S. Department of Education. (2018). What Works Clearinghouse Intervention Report: Achieve 3000. Institute of Education Sciences. https://files.eric.ed.gov/fulltext/ED581246.pdf

U.S. News Ranks the 50 States. (n.d.). Retrieved April 2, 2023, from https://www.usnews.com/news/best-states/rankings

Walber, H. & Meyer, J. (2004, April). *The effects of Core Knowledge on state test achievement in North Carolina*. https://files.eric.ed.gov/fulltext/ED484226.pdf.

Wang, K., Rathbun, A., & Musu, L. (2019). *School choice in the United States*. National Center for Education Statistics. https://nces.ed.gov/pubsearch.

What is a Charter School | NCSRC. (n.d.). https://charterschoolcenter.ed.gov/what-charter-school

What is the Read by Grade Three Law? (n.d). Michigan Department of Education https://www.michigan.gov/-/media/Project/Websites/mde/gsrp/parents/grade_3_reading_facts_families_final_tj.pdf?rev=b8e0f097288f48ff8aff62734d5a7df4

White, S., Sabatini, J., Park, B.J., Chen, J., Bernstein, J., & Li, M. (2021). *The 2018 NAEP oral reading fluency study.* National Center for Education Statistics. https://nces.ed.gov/nationsreportcard/subject/studies/orf/2021025_orf_study.pdf

Wohlstetter, P., Wenning, R., & Briggs, K. L. (1995). Charter schools in the United States: The question of autonomy. *Educational Policy*, 9(4), 331-358.

Zimmer, R. and Buddin, R. (2005). Charter school performance in urban districts. Are they closing the achievement gap? *Rand Working Paper Series Reference* No. WR-282-EDU. Available at https://www.rand.org/pubs/working_papers/WR282.html

Zoukis, C. (2017) *Basic literacy a crucial tool to stem school to prison pipeline*. HuffPost. https://www.huffpost.com/entry/basic-literacy-a-crucial-tool-to-stem-school-to-prison_b_59149393e4b01ad573dac1dd

Appendix

Student Vertical Scale Scores

Mauldin School of Excellence		Vision School of Excellence		Virtual Academy of the State	
Student	Vertical Scale Score	Student	Vertical Scale Score	Student	Vertical Scale Score
Student 1	402	Student 1	560	Student 1	432
Student 2	388	Student 2	456	Student 2	268
Student 3	251	Student 3	456	Student 3	440
Student 4	409	Student 4	242	Student 4	440
Student 5	312	Student 5	259	Student 5	305
Student 6	291	Student 6	268	Student 6	417
Student 7	417	Student 7	298	Student 7	360
Student 8	482	Student 8	340	Student 8	340
Student 9	629	Student 9	417	Student 9	502
Student 10	424	Student 10	298	Student 10	354
Student 11	456	Student 11	283	Student 11	473
Student 12	291	Student 12	259	Student 12	360
Student 13	402	Student 13	492	Student 13	417
Student 14	535	Student 14	291	Student 14	402
Student 15	523	Student 15	547	Student 15	347
Student 16	395	Student 16	502	Student 16	575
Student 17	456	Student 17	268	Student 17	395
Student 18	409	Student 18	448	Student 18	291
Student 19	319	Student 19	333	Student 19	417
Student 20	251	Student 20	464	Student 20	402
Student 21	547	Student 21	409	Student 21	473
Student 22	388	Student 22	432	Student 22	268
Student 23	560	Student 23	374	Student 23	535
Student 24	409	Student 24	473	Student 24	591
Student 25	402	Student 25	432	Student 25	283
Student 26	652	Student 26	652	Student 26	291
Student 27	388	Student 27	417	Student 27	523
Student 28	575	Student 28	448	Student 28	750
Student 29	464	Student 29	432	Student 29	473
Student 30	547	Student 30	591	Student 30	535
Student 31		Student 31	319	Student 31	560

Student 32	251	Student 32	502	Student 32	298
Student 33	432	Student 33	547	Student 33	424
Student 34	482	Student 34	340	Student 34	547
Student 35	326	Student 35	417	Student 35	275
Student 36	482	Student 36	424	Student 36	319
Student 37	424	Student 37	547	Student 37	652
Student 38	523	Student 38	464	Student 38	268
Student 39	448	Student 39	456	Student 39	223
Student 40	512	Student 40	305	Student 40	482
Student 41	409	Student 41	395	Student 41	347
Student 42	502	Student 42	609	Student 42	591
Student 43	233	Student 43	609	Student 43	402
Student 44	629	Student 44	374	Student 44	312
Student 45	535	Student 45	340	Student 45	547
Student 46	448	Student 46	233	Student 46	591
Student 47	456	Student 47	440	Student 47	381
Student 48	464	Student 48	319	Student 48	473
Student 49	259	Student 49	464	Student 49	298
Student 50	409	Student 50	402	Student 50	560
Student 51	492	Student 51	388	Student 51	482
Student 52	259	Student 52	354	Student 52	523
Student 53	305	Student 53	575	Student 53	432
Student 54	326	Student 54	326	Student 54	535
Student 55	512	Student 55	268	Student 55	502
Student 56	409	Student 56	456	Student 56	591
Student 57	291	Student 57	402	Student 57	326
Student 58	482			Student 58	609
Student 59	560			Student 59	473
Student 60	652			Student 60	512
Student 61	251			Student 61	333
Student 62	502			Student 62	291
Student 63	535			Student 63	535
Student 64	291			Student 64	591
Student 65	233			Student 65	417
Student 66	591			Student 66	464
Student 67	283			Student 67	464
Student 68	575			Student 68	512
Student 69	340			Student 69	591
Student 70	395			Student 70	512
Student 71	609			Student 71	440

Student 72	591	Student 72	575
Student 73	560	Student 73	424
Student 74	251	Student 74	712
Student 75	360	Student 75	448
Student 76	381	Student 76	560
Student 77	340	Student 77	388
Student 78	298	Student 78	575
Student 79	402	Student 79	629
Student 80	402	Student 80	283
Student 81	492	Student 81	333
Student 82	502	Student 82	440
Student 83	354	Student 83	333
Student 84	298	Student 84	512
Student 85	512	Student 85	575
Student 86	464	Student 86	512
Student 87	456	Student 87	464
Student 88	259	Student 88	395
Student 89	609	Student 89	547
Student 90	283	Student 90	652
Student 91	464	Student 91	679
Student 92	259	Student 92	259
Student 93	560	Student 93	340
Student 94	367	Student 94	575
Student 95	502	Student 95	535
Student 96	283	Student 96	547
Student 97	177	Student 97	448
	456	Student 98	456
		Student 99	347
		Student 100	652
		Student 101	535
		Student 102	388
		Student 103	629
		Student 104	259
		Student 105	523
		Student 106	464