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Don't Waste Our Time: Key Transformative Structures for Fast Track Learning

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DON'T WASTE OUR TIME:
KEY TRANSFORMATIVE STRUCTURES FOR FAST TRACK LEARNING

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by
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Abstract

Following a massive wave of school closures during the COVID-19 pandemic, educators found the need to be hyper-critical of how they spend their instructional time with students. Almost all students are expected to return nearly a full grade-level behind and would likely have to learn to navigate a completely new school environment. As a result, many educators were overwhelmed to cover unprecedented amounts of instructional content in less time. High-intensity tutoring programs have been known to have the potential to help struggling students advance their skills and gain up to three additional months of learning within a few sessions. The belief in Darlington County School District is to provide more time using the same effective instructional practices.

Darlington County provided tutoring services and additional instruction after school in a program that is called The Academic Enhancement Program (AEP). Instruction was continued from the regular school day with the use of a common (districtwide) curriculum that is standards-aligned and supported with district-approved and provided materials.

Time has been identified as a key factor in losing instructional grounds or gaining it. Because of this important fact, instructional structures are provided systemically with the intention of saving teachers time from having to create lessons and find resources, along with providing students equitable learning opportunities. We observed through the data that all students in the district (grades 3 - 8) had some growth.

Keywords: learning loss, acceleration, tutoring, additional instructional time, equity, common curriculum, progress monitoring, personalized learning

Dedication

I dedicate my research and dissertation to my father, **Melvin Smoak**, whose 36 years as a math teacher, basketball coach, principal, and superintendent exemplify dedication and leadership in education.

To my mother, **Deloris Smoak**, whose 35 years as a science and home economics teacher and district dietician embody nurturing and excellence in both education and well-being.

And to my mentor, **Thomasenia Benson**, whose unwavering support and guidance throughout my career, from my first teaching job to the present, have been invaluable. Her 35 years of service as a teacher and principal have been a source of inspiration and wisdom.

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Hinnant-Crawford

Bonney

Paufler

Pew

I also want to thank my cohort members, classmates, and friends, particularly **Patricia Moultrie-Goldsmith and Dr. James R. Ford,** for their camaraderie and encouragement, which have made this journey all the more meaningful.

Moutrie-Goldsmith

Ford

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Chapter One: Introduction to the Study

Research Problem

Beginning in March 2020, the world experienced the Coronavirus Pandemic, which not only affected the health of individuals globally but also left a long-lasting effect on schools and student learning. "COVID slide" is a term used to describe a pattern of learning loss that students have experienced, typically during summer months when schools are closed. But now, there is a greater and more significant gap in learning loss due to extended school closures worldwide (Kuhfeld et al., 2020). Over time, it has become more evident that the Coronavirus Pandemic profoundly impacted K-12 education, particularly for impoverished students.

The longer students could not attend school, the more notable factors were brought to the forefront that demonstrated the inequitable distribution of resources. Poor students lacked access to technology and reliable internet, making it difficult to participate in remote learning (PACE - COVID-19 and the Educational Equity Crisis, n.d.). Without these resources, students were at a significant disadvantage compared to their more affluent peers with access to the necessary technology and internet connectivity. As a result, many students in poverty were unable to engage fully in remote learning, and as a consequence, their academic progress was hindered because "new learning" opportunities became almost impossible.

Students who experience poverty are more likely to face challenges in their home environment that can negatively impact their ability to learn, including unstable living conditions, food insecurity, and lack of access to basic healthcare. A disruption to students' daily routines and their families' abilities to provide daily basic needs caused another set of obstacles that disrupted their learning (PACE - COVID-19 and the Educational Equity Crisis, n.d.). Many

of their families experienced the loss of loved ones due to illness. The pandemic has exacerbated these challenges and created additional stressors for students and their families, impacting their ability to focus during school. Therefore, academic performance and achievement have been daunting (Mervosh & Wu, 2022).

Schools were closed for three to six months. When schools began to open again, some schools may have only been on an abbreviated return schedule which force remote learning to be a "must." Remote learning reduced the amount of time students spent on direct instruction and interaction with their teachers. This lack of in-person instruction has made it more difficult for teachers to monitor student progress and provide individualized support to students who need it most (Garcia & Weiss, 2020). This lack of individualized support has led to significant learning loss for students in poverty, who often require more personalized attention and support to succeed academically.

The tables below illustrate the significant decrease in student achievement performance in the state's standardized tests in the areas of reading and mathematics. There was a sizable increase in student performance from 2018 to 2019. The pandemic began in March 2020 and put a halt to schooling causing a major disruption in the educational arena. When the 2021 standardized tests were administered at the end of the school year, there was a notable decrease in student performance. When comparing the two subjects, mathematics had a more significant loss.

Figure 1:

South Carolina Statewide Reading Performance (2018 - 2021)

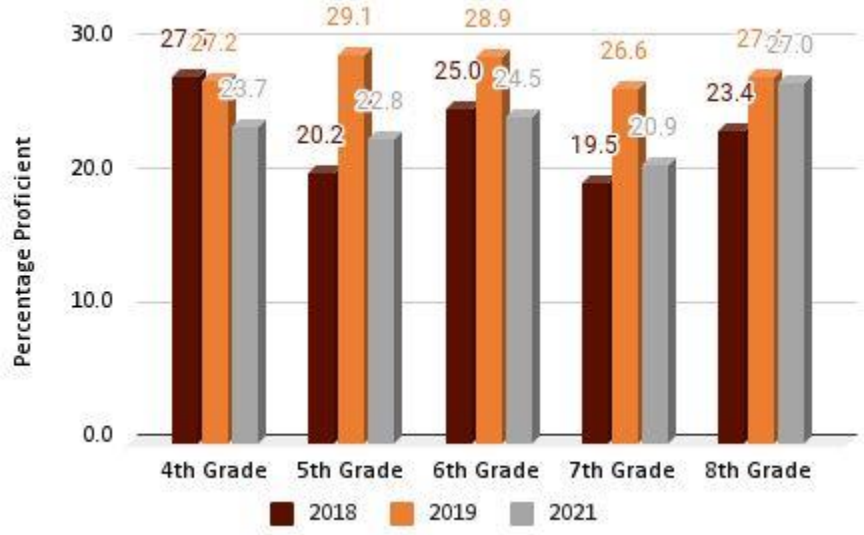
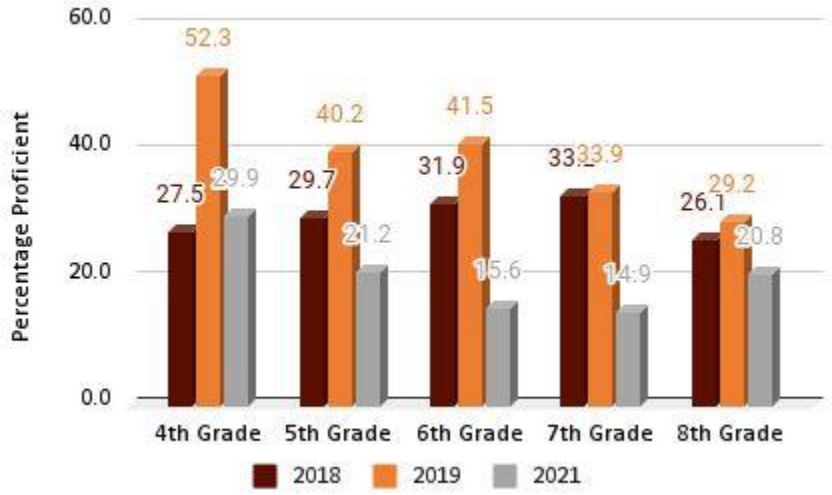


Figure 2:

South Carolina Statewide Mathematics Performance (2018 – 2021)



Note. SC Ready Standardized Tests 2018 - 2021. The graphs illustrate the percentage of students in grades 3 - 8 in the entire state of South Carolina who demonstrated proficiency in the area of ELA/Reading (Figure 1.1) and Mathematics (Figure 1.2). There was no testing during the year 2020 due to school closures during the COVID-19 pandemic.

Eighty percent of the students in Darlington County School District are students in poverty. During the COVID-19 pandemic shutdown, there was consideration that there was a combination of missing factors, including limited access to technology and reliable internet, disruption to daily routines, reduced access to direct instruction and individualized support, and disrupted learning norms for children. These missing factors made it challenging for students in poverty to maintain academic progress, exacerbating the existing achievement gap between students from low-income families and their more affluent peers.

The massive wave of school closures created a situation in which educators will now have to be hyper-critical of how instructional time is spent with students. Because of the obstacles faced during the pandemic, much time was lost that is usually structured each day and accounted for by providing learning opportunities. There is an assumption that most students have come back to school nearly a whole grade level behind (Kuhfeld et al., 2020). This assumption is supported by information provided by the New York Times in a review of national student performance in the areas of reading and mathematics. U.S. students in most states and across almost all demographic groups have experienced troubling setbacks in both math and reading, according to the National Assessment of Educational Progress (NAEP) assessments that was administered to fourth and eighth graders, offering the most definitive indictment yet of the pandemic's impact on millions of schoolchildren (Mervosh & Wu, 2022).

In math, the results were especially devastating, representing the steepest declines ever recorded on the National Assessment of Educational Progress, known as the nation's report card, which tests a broad sampling of fourth and eighth graders and dates to the early 1990s. In the test's first results since the pandemic began, math scores for eighth graders fell in nearly every state. A meager 26 percent of eighth graders were proficient, down from 34 percent in 2019.

Fourth graders fared only slightly better, with declines in 41 states. Just 36 percent of fourth graders were proficient in math, down from 41 percent (Mervosh & Wu, 2022).

Reading scores also declined in more than half of the states, continuing a downward trend that had begun even before the pandemic. No state showed sizable improvement in reading, and only about one in three students met proficiency standards, a designation that means students have demonstrated competency and are on track for future success (Mervosh & Wu, 2022).

Figure 3:

National Proficiency Percentages in Reading & Mathematics (2022)

	Reading		Mathematics	
State	4th Grade	8th Grade	4th Grade	8th Grade
National Average	33	31	36	26
Wyoming	38	30	44	31
Massachusetts	43	40	43	35
Nebraska	34	29	43	31
Winsconsin	33	32	43	33
Utah	37	36	42	35
Florida	39	29	41	23
Minnesota	32	30	41	32
New Hampshire	37	33	40	29
Ohio	35	33	40	29
Pennsylvania	34	31	40	27
Indiana	33	31	40	30
Iowa	33	29	40	28
South Dakota	32	31	40	32
North Dakota	31	27	40	28
New Jersey	38	42	39	33
Montana	34	29	38	29
Illinois	33	32	38	27
Virginia	32	31	38	31
Texas	30	23	38	24
Connecticut	35	35	37	30
Hawaii	35	31	37	22
Colorado	38	34	36	28
Idaho	32	32	36	32
Tennessee	30	28	36	25
Washington	34	32	35	28
North Carolina	32	26	35	25
Kansas	31	26	35	23
Vermont	34	34	34	27
Rhode Island	34	31	34	24
Georgia	32	31	34	24
South Carolina	**32**	**27**	**34**	**22**
Missouri	30	28	34	24
Kentucky	31	29	33	21
Arizona	31	28	32	24
Mississippi	31	22	32	18
Maine	29	29	32	24
Michigan	28	28	32	25
Maryland	31	33	31	25
California	31	30	30	23
Oregon	28	28	29	22
New York	30	32	28	28
Arkansas	30	26	28	19
Nevada	27	29	28	21
Alaska	24	26	28	23
Louisiana	28	27	27	19
Alabama	28	22	27	19
Oklahoma	24	21	27	16
Delaware	25	24	26	18
District of Columbia	26	22	24	16
West Virginia	22	22	23	15
New Mexico	21	18	19	13

Note. NAEP Testing (2022) proficiency levels are provided for all students in grades 4 and 8 who were tested by each state in the subjects of Reading and Mathematics. Results have been

normed, and their placements have been identified with color representatives. Colors on the graph give an indication of how the state is ranked in the nation. Red indicates that the state is in the bottom 1/3 of the nation's rankings. The darker the red is indicates that the state is more closer to the bottom of the rankings. Yellow indicates that the state is in the middle 1/3 of the nation. The more orange the color is indicates that the state is more closer to the bottom portion of the middle group. Green indicates that the state is in the top 1/3 of the nation's rankings. The darker the green is indicates that the state is closer to the top of the national rankings.

As a result, many educators are overwhelmed with covering unprecedented amounts of new instructional content in less time (Developmental Education for Students Facing Coronavirus Slide | EAB, 2020). The federal government recognizes all that has occurred and the apparent disparity in educational resources that limits learning (Goldberg, 2021). The pandemic has exposed the always existing disparities when it was impossible for some students to communicate or continue meaningful learning. The government has now attempted to correct this wrong by distributing federal aid which is expected to be used to provide needed infrastructures. Only time will tell whether or not this strategy will assist with rectifying this systemic problem.

Now that our schools are back in session, educators are working hard to get daily school routines of operating similarly to pre-pandemic times. District and school leaders in Darlington County School District worked hard before the Pandemic to develop systemic guides, structures, and processes to address equity issues. Because of this, the superintendent and district leaders believe there is no need for additional materials or programs (Darlington et al. District, 2021) to address this learning loss.

Darlington County School District operated a comprehensive Academic Enrichment Program (AEP) for grades K-12. The AEP is open to all DCSD students. The program focused on academic reinforcement, academic remediation, and content recovery for high school students. Transportation was provided, and students received breakfast and lunch at the program

sites. The district also offered a Summer Reading Camp for third graders and the DCSD ArtSummer program for students in grades 5-10 who wished to focus on the arts.

There is a shared belief that it will be most beneficial to provide more learning time (to recover the lost time) by using the same established instructional practices with the hopes of gaining momentum, which will ultimately increase student academic growth to recover all that was lost. In the next section, a review of existing research and literature is considered to contextualize and expand upon the issues faced and qualities necessary for effective learning mentioned thus far. This literature review will serve as a fundamental source for ongoing study and exploration, highlighting key ideas that address the subject matter and identifying gaps and opportunities for further investigation. Additionally, this literature review will be pivotal in laying the foundation for in-depth analysis and discussions.

Research Site Rationale

Darlington County School District in Darlington, South Carolina, is a rural county that presents an ideal location for studying processes of learning to accelerate the educational outcomes of students from economically disadvantaged backgrounds. The students of this district experienced a decline in student performance during the COVID-19 Pandemic, just like many other students across the nation. According to the 2022 Darlington County School District's state report card, the demographics listed about the district include details that illustrate its complexity and relevance for finding processes that accelerate student learning (Overview - SC School Report Card, n.d.).

Table 1

Darlington County School District Demographics

Demographic Category	Details
Number of Schools	17 (elementary, middle, and high)
Number of Students	8,691
Students of Poverty	6,961 (80%)
Disabled Students	1,303 (15%)

Note. Revenue per Pupil Report by School District for FY 2023-2024 excluding Bond Revenue, n.d.

With such a high percentage of students in poverty, 80% of its student population coming from economically disadvantaged backgrounds, Darlington County School District represents an ideal microcosm for researching strategies to accelerate learning for students facing poverty-related challenges. Because of the diverse student population, this location is ideal for observing students from diverse backgrounds with different perspectives and values. The district's poverty population (80%), along with learning-disabled students (17.3%), highlights the importance of studying learning processes that cater to the individual needs of its students, culturally and linguistically.

Along with identifying the specific needs of the students of Darlington County School District, the district's leadership desires significant change that will benefit the academic performance of all students in the district's strategic plan (DCSD Strategic Plan - Darlington County School District, n.d.). The school district is committed to educational equity and closing achievement gaps. This type of value system makes it an ideal partner for research aimed at improving outcomes for disadvantaged students. Additionally, the district actively engages with the community in efforts to facilitate collaborative partnerships that implement and assess

strategies that are beneficial for their students and provide effective systems for all children (DCSD Strategic Plan - Darlington County School District, n.d.).

Philosophy for Understanding Individual Needs to Serve All Children Well

During my very first year of teaching eighth-grade English, I walked into the classroom with a confident attitude that I was going to make a positive difference in providing equitable learning experiences for students where many had tried and failed. My expectations for all of my students were the same, and there were no excuses accepted. One day I gave my students their papers back that had been graded to take home to their parents for signatures. This was nothing new. It was a standard routine that I practiced to keep families aware of their child's academic progress. Students had an extra day out of school for the weekend because Friday was a holiday. When the following Monday arrived, I started the class by asking all students to turn in their papers that they had gotten their parents to sign over the long weekend. All students turned in their papers with the exception of one young man. Not returning this signed paper was never allowed by me. They always complied with what I requested. When I questioned the young man about his not following through, he tried to explain that he had not seen his mother all weekend. I immediately dismissed his excuse and accused him of not telling the truth. My thought was that he had to be lying because they were out of school for the weekend, plus… had an additional day too. I was furious because I expected my students to follow through with my expectations, and I believed that this young man was being nonchalant and didn't want me to press him about not completing my request. I fussed and fussed. Meanwhile, he remained respectful, did not respond back, and took my harsh words of disappointment.

After the class, I went to the assistant principal and asked her to get this young man's parent's contact information so that I could call his mother and tell her what had occurred. I

continued to fuss and go on explaining that I was not going to accept his excuse because surely he was not telling the truth. I reminded her that students had an extra day added to the weekend. This child must have been crazy to think that I would believe that he had not seen his mother in "three whole days." The assistant principal stopped me and said in a very sad voice, "Ms. Smoak… he was probably telling you the truth. Sometimes he does not know where his mother is. She is on drugs. He goes for many days without seeing her or knowing where she is." My heart stopped, and it fell to the floor. I was shocked and never thought of that because I had never experienced life like that at his age. My parents were always there. That was my first hard lesson about unequal opportunities. I grew up in this same community but never realized that we lived worlds apart. I was not exposed to the life concept of the "haves and have-nots." When I saw the young man again, I immediately apologized and made sure that I corrected my behavior toward him.

Beliefs

I realized in an instant that I was becoming the educator that I did not want to be. I was not empathetic. I did not listen, and I was sure that I had hurt him. I just assumed that his growing up experiences were somewhat similar to mine. Is it that way for all children? That was wrong of me, and I had to correct it. This one moment was the pivotal point at which I really comprehended the idea of education, as I viewed it with middle-class parents who were both educators. This moment would have to be the catalyst for transforming this problem. I realized that "the change" that I wanted to create must look very different than the thoughts I initially had. It must include multiple chances to "fail fast then fix fast." And sometimes additional resources must be made available so that the same outcomes can be achieved.

Education is both the act of teaching knowledge to others and the act of receiving knowledge from someone else. Education also refers to the knowledge received through schooling or instruction and to the institution of teaching as a whole (Dictionary.com, 2018).

The word “education” covers, both, the act of instructing and the act of learning. It usually refers specifically to the teaching of children or younger people and the learning done by them (Dictionary.com, 2018).

Through my personal journey, I have come to believe that education can be considered a systemic collection of experiences and information that generally reflects the priorities and values of a society. The more encounters one has, the more valuable education becomes. The United States of America broadly establishes goals with the hopes that all children should be able to reach their full potential as individuals who will ultimately serve as citizens of a free society with a set of skills to compete successfully in this ever-changing world. Is this always true?

Growing up in a family of educators (grandmother, mother, and father), who all worked in public education, was the foundation for my firm belief that all children can be successful in life when provided with equitable learning opportunities. I often studied the details of my parents' career pathways. This is where I developed a love for people and a belief that educational systems should have an understood purpose of benefiting and enhancing the quality of life for all people. Schools should serve and meet the needs of all people. A quality education is the one thing that could possibly change the trajectory of so many lives and even an entire community. Our institutions of learning were created to ensure that exposure to new information and experiences that have never seen or possessed before is a constant must. The lack of providing a leveled playing field during the early childhood stages of life forms opportunity gaps

that create barriers in the daily learning processes (Ladson-Billings, 2006). Ultimately, this negatively impacts the quality of their lives. As I currently work in a public school system, where I observe large achievement gaps that have been obviously created due to generations being deprived of consistent structures that intentionally meet the specific needs of individuals, gaping and tragic circumstances result in student learning outcomes, which are virtually irreparable (Ladson-Billings, 2006).

The learning deficit is overwhelming and can be compared to a bank account that has been completely emptied and exhausted. This societal financial debt is almost impossible to reverse. Moreover, the lack of being provided with learning consistencies constructs a social status/position that accumulates a long-term compilation of missed opportunities referred to as "educational debts"(Ladson-Billings, 2006). Allowing subgroups of people to continue to advance in these structures without any attempt to develop system solutions for change only widens the disparities and supports long-term societal dysfunction (Milner, 2020). Educational systems must contain structures that work together and provide a variety of avenues of hope and advancement, along with resources and supports for individuals, generations, and entire communities (Milner, 2020).

Moving Forward

Moving forward, anyone working within the educational area must have the skillset necessary to create a lens that supports child development. This perspective gathers data about each individual and their unique characteristics to intentionally develop a pathway that will thrust them forward into so many possibilities. Understanding that the purpose of educational systems is to make each student better than when first encountered should be the overall goal. All should have layers added to them that equip them with skills and resources that create

resolutions when faced with life's challenges. We are not to ignore the fact that there are deficits that are created out of the systemic conditions and sociopolitical context (Ishimaru, 2017). These factors (racism, economic injustice, etc.) are indeed real. Instead, we must educate our children about these factors so that they are aware. We cannot ignore them; we must acknowledge their existence and their detriment. This is the first step to educating societal change.

A level of trust and security are an integral part of developing a culture for growth, change, and learning. As an instructional leader, it is a necessity to create a vision and culture that acknowledges and supports individuals who are different (Stanley & Gilzene, 2022). Those unique characteristics cannot become barriers. Instead, these attributes should be respected for what they are and be represented in all facets of schools. Providing avenues that are inclusive of varied viewpoints, lifestyles, and thought processes is a must. A focused approach must be at the center of educating students and engaging their families and communities. Doing so acknowledges each positive aspect that makes up who they are (Stanley & Gilzene, 2022).

I believe that education, with the right leadership, "finds" ways to make impossible dreams come true, understands the power of their influence, and strategically develops systems that continuously replicate this passion that cultivates potential (Khalifa, 2020). Education can be summed up as the "Art of People." The adoration of each person and the pouring into him/her makes the difference. Learning and obtaining an education happens when new experiences or exposure to new ideas are created and kept as memories in the storage of our minds for relevant points of use or application. When necessary, we remember the lessons learned and continue to share them with others in hopes that the cycle of "creating better…" continues on for generations to come.

Researcher Position Significance

As a 50-year-old African American female serving as an assistant superintendent in public schools, my positionality significantly shapes my research perspective and approach. My unique background, experiences, and social identity deeply influence the lens through which I view educational issues and the questions I seek to explore. Personally and professionally, I have been exposed to the realities of systemic inequalities and disparities in the education system, affecting students, educators, and administrators alike. This awareness influences my drive to advocate for equity, inclusivity, and culturally responsive practices in all aspects of education. My position also grants me a firsthand understanding of the challenges faced by marginalized communities within the educational landscape. This perspective allows me to empathize with the experiences of students and educators from diverse backgrounds and encourages me to amplify their voices in the research process.

Being the Assistant Superintendent for Curriculum, Instruction, and Assessment in Darlington County School District, I possess insider knowledge of the inner workings of the education system, its policies, and its potential for transformation. My position grants me access to critical data, resources, and decision-making processes that can facilitate research that aligns with the realities of educational institutions. I work closely with instructional district subject content coordinators to create support systems that are intended to guide teachers and all other instructional staff. It is my responsibility to lead initiatives that implement evidence-based instructional strategies proven to be effective in accelerating the learning of disadvantaged students and all students in our district. This will involve professional development programs and any other type of effective support for educators. As the instructional lead, it is also my responsibility to develop system-wide processes, procedures, and structures that accurately

measure students' academic growth and progress. Regular data analysis can provide valuable insights into the effectiveness of interventions and inform further curriculum adjustments.

Most importantly, my current position depends on me to serve as an advocate for our students by ensuring that policies address the unique needs of all of our students. Developing positive relationships with parents, community members, and school leaders is a key component of the job because it affects outcomes for our students, which ultimately can influence opportunities for equity. Access to high-quality educational resources and opportunities for all students, especially those facing poverty-related challenges, is critical when making decisions on resource allocation and educational policies that promote inclusivity.

Over the past decade, school officials and school board members have shared concerns about doing what is necessary to create effective learning systems and provide conducive learning environments that would benefit the academic performance of their students. School board members noted disparities, especially with those when serving diverse student populations. Achievement gaps often manifest and become obvious when reviewing standardized test scores (Faile, 2012). Concerns about the equitable allocation of resources, including funding, teachers, and educational materials, can impact student performance. During a school board meeting in 2016, school board members expressed further disappointment and concern for student performance when they reviewed the district's state's standardized test results in comparison to the state's. They could not understand why their results were so low (Darlington County School Board Concerned about Achievement Gap, 2016).

The data presented in the charts highlights a consistent pattern of achievement gaps between students in poverty and those not in poverty across multiple grade levels from 2016 to

2021. In each grade, both at the district and state levels, students not in poverty consistently outperformed their peers in poverty in terms of academic achievement.

In 3rd grade (2016 reading results), the overall achievement rate was 29.4%, with students in poverty at 24.8% and students not in poverty at 50.7%. This pattern persisted through all grade levels, 4th, 5th, 6th, 7th, and 8th grades, where the disparity in achievement between the two subgroups remained evident.

Table 2

2016 Reading Performance (District vs State)

	District Results			State Results		
Grade Level	Overall	In Poverty	Not in Poverty	Overall	In Poverty	Not in Poverty
3rd Grade	29.4%	24.8%	50.7%	43.7%	31.6%	65.0%
4th Grade	33.4%	25.0%	61.5%	43.4%	30.9%	63.6%
5th Grade	32.4%	23.5%	56.3%	41.2%	27.6%	61.4%
6th Grade	33.2%	23.3%	60.3%	41.0%	27.3%	60.5%
7th Grade	31.2%	24.2%	51.3%	40.7%	26.4%	59.9%
8th Grade	37.7%	28.1%	61.1%	44.7%	31.0%	62.5%
All Grades	32.9%	24.8%	56.9%	42.5%	29.1%	62.2%

Table 3

2016 Mathematics Performance (District vs State)

	District Results			State Results		
Grade Levels	Overall	In Poverty	Not in Poverty	Overall	In Poverty	Not in Poverty
3rd Grade	41.6%	37.7%	60.6%	53.6%	42.6%	53.2%
4th Grade	39.5%	32.0%	65.7%	46.7%	34.2%	67.0%
5th Grade	34.9%	26.7%	57.2%	44.3%	31.3%	69.1%
6th Grade	29.4%	20.7%	53.4%	39.5%	25.7%	59.1%
7th Grade	26.6%	20.6%	43.6%	34.7%	20.7%	53.2%
8th Grade	27.3%	17.6%	50.2%	32.4%	19.7%	48.8%
All Grades	33.2%	25.9%	55.1%	41.9%	29.0%	58.4%

Note. 2016 SC Ready Reading & Mathematics Results (in graphs above) – Percentage of students who scored in the categories of "Meets Expectations" or "Exceeds Expectations" (Overview – SC School Report Card, n.d.).

Table 4

2021 Reading Performance (District vs State)

	District Results			State Results		
Grade Levels	Overall	In Poverty	Not in Poverty	Overall	In Poverty	Not in Poverty
3rd Grade	28.6%	20.7%	61.7%	43.3%	30.8%	64.4%
4th Grade	28.2%	22.5%	51.6%	46.1%	33.3%	67.2%
5th Grade	24.9%	18.6%	52.4%	38.9%	25.9%	60.5%
6th Grade	31.1%	25.7%	50.0%	41.8%	28.8%	62.3%
7th Grade	29.6%	22.1%	57.2%	42.5%	29.2%	63.0%
8th Grade	27.9%	23.4%	45.8%	41.9%	29.3%	60.1%
All Grades	28.4%	22.2%	53.1%	42.4%	29.6%	62.9%

Table 5

2021 Mathematics Performance (District vs State)

	District Results			State Results		
Grade Levels	Overall	In Poverty	Not in Poverty	Overall	In Poverty	Not in Poverty
3rd Grade	29.2%	21.2%	62.6%	46.9%	33.5%	69.8%
4th Grade	24.1%	17.8%	50.0%	42.0%	28.9%	63.7%
5th Grade	25.9%	18.3%	59.5%	38.1%	25.1%	59.7%
6th Grade	25.5%	19.7%	45.7%	33.9%	20.6%	54.9%
7th Grade	22.7%	16.2%	46.5%	30.4%	17.5%	50.3%
8th Grade	18.5%	14.9%	32.8%	30.7%	18.3%	48.9%
All Grades	24.3%	18.0%	49.5%	37.0%	24.0%	57.9%

Note. 2021 SC Ready Reading & Mathematics Results (in graphs above) – Percentage of students who scored in the categories of "Meets Expectations" or "Exceeds Expectations" (Overview – SC School Report Card, n.d.).

There is an obvious trend illustrating the mastery levels between the two subgroups. The consistent and widening gaps over the years indicate a systemic issue that requires attention and intervention. Addressing these achievement gaps requires targeted strategies and policies aimed

at providing equitable opportunities and support for students in poverty, ensuring a more inclusive and fair educational system for all.

It has become very apparent to the members of the Darlington County School District Board of Trustees that inadequate resources in schools serving economically disadvantaged students can hinder their academic success (Darlington School Board Votes to Merge St. John's, Rosenwald Schools into New Facility, 2022). Therefore, they are willing to do what is necessary to rectify this problem, even if it means merging small schools and building new facilities. The level of parental and community involvement in the educational process plays a significant role in student success. Knowing the value of developing collaborative partnerships with community families and business leaders, the district's superintendent committed to unifying support for our students and removing barriers that hinder effective engagement with parents and the local community (Butler, 2023).

As I move forward with this study, it is important to acknowledge that my positionality may also introduce biases or assumptions that could influence the research process. To mitigate these potential effects, I am committed to reflexivity and self-awareness. I will actively engage in critical self-examination, continuously challenging my preconceptions and being transparent about my perspective's potential impact on the research.

I will strive to uphold ethical principles and ensure that the voices of all stakeholders, especially those historically marginalized, are included and respected. My positionality enriches my research by offering a unique and nuanced perspective, yet I recognize the responsibility to approach my studies with integrity, humility, and an unwavering commitment to advancing educational equity and social justice. Ultimately, my goal is to advocate for policies and

practices that empower all students to thrive academically and personally, regardless of their cultural background or socio-economic status.

Research Questions

The purpose of this research study is to investigate, explore, and gain a deeper understanding of particular strategies that are beneficial to the effective learning processes for students of poverty. To ensure a systemic and focused approach, it is essential to establish a set of guiding questions that will steer the research process in a meaningful direction. These guiding questions will serve as a compass, directing the research towards relevant information that will aid in the formulation of hypotheses and ultimately help to uncover valuable insights.

In this study, I will aim to address factors (structures, strategies, and interventions) that influence the acceleration of learning with students of poverty. To achieve this objective, I have developed some fundamental questions that will serve as the foundation for investigative research that will be organized in a logical framework.

- How do we determine what learning was actually "lost?"
- What educational structure is needed to recover the time and begin closing achievement gaps with our students?
- What strategies should be considered to accelerate student learning?
- How will we monitor the progress of student performance to determine growth?

When these questions are answered in this research, understanding the importance of accelerating the learning of students living in poverty will become a district priority. It is my hope that the evidence collected will be compelling enough to present the importance of implementing effective interventions and addressing educational inequalities. Such discoveries

can impact societal structures that can remove barriers that will improve the outcomes of life and break cycles of poverty.

By emphasizing the urgency of accelerating the learning of students in poverty, this research can underscore the need for intentional, deliberate, and targeted interventions that address individual and unique challenges. Additionally, the need for early interventions can highlight the value of comprehensive support systems that address the multifaceted needs of students. We can promote social mobility, reduce income inequality, and foster economic growth when students are provided a quality education that empowers them to overcome the challenges of life. The desired findings of this research study can make a compelling case for prioritizing and accelerating the learning of students of poverty. It is crucial for policymakers, educators, communities, and stakeholders to come together and take a concrete approach to quality and supported learning opportunities. By doing so, we can pave the way for a more prosperous future where every student has a chance to succeed and thrive.

During the process of conducting an analysis to identify the needs of students in Darlington County School District, it has become evident that several key factors contribute to learning loss among students facing economic challenges. The first significant factor is the fulfillment of basic needs, where students from economically disadvantaged backgrounds often encounter obstacles related to access to necessities such as proper nutrition, healthcare, and a stable living environment. Insufficient provision of these basic needs can significantly impede a student's ability to focus on their education and contribute to learning disparities.

Another critical aspect identified is the presence of inconsistencies within the educational structures. Disparities in teaching methodologies, resource allocation, and educational support systems can contribute to uneven learning experiences among students, particularly those from

impoverished backgrounds. These inconsistencies may result in gaps in knowledge and skills, exacerbating the learning loss phenomenon.

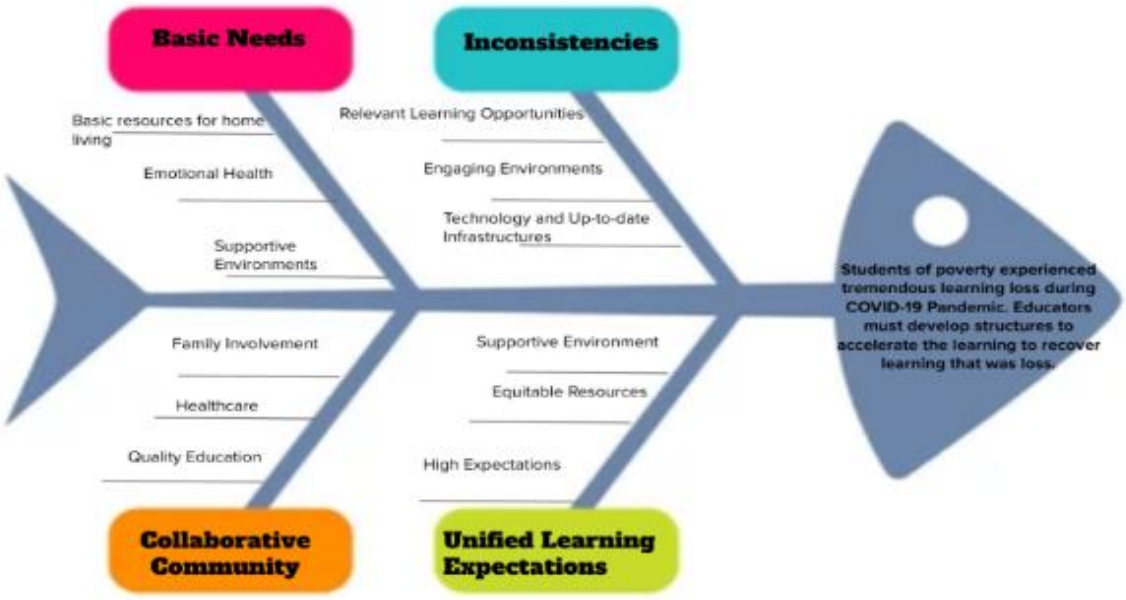
Furthermore, the lack of collaborative efforts within the community has surfaced as a notable factor. When there is a deficiency in communication and cooperation between schools, families, and community organizations, the support network for students, especially those in need, becomes fragmented. A cohesive and collaborative approach is essential to provide comprehensive support systems that address the diverse needs of students facing economic challenges.

Lastly, the absence of common and unified learning expectations throughout the district has emerged as a contributing factor. A standardized approach to curriculum, assessment, and educational goals ensures that all students, regardless of their socio-economic backgrounds, have equal opportunities to succeed. Without a unified framework, there is a risk of perpetuating disparities and hindering the overall academic progress of students.

Addressing these identified root causes is crucial for developing targeted interventions and creating a more equitable learning environment within Darlington County School District. By focusing on meeting basic needs, rectifying educational inconsistencies, fostering community collaboration, and establishing unified learning expectations, the district can work towards narrowing the achievement gap and providing every student with the support needed to thrive academically.

Figure 4:

Factors That Contribute to the Learning Loss of Students of Poverty (Fishbone Diagram)



Moreover, understanding how students of poverty learn goes beyond addressing their immediate educational needs. It offers valuable insights into the dynamics of learning and education as a whole. By examining the ways in which poverty intersects with teaching and learning, we can uncover broader systemic issues, challenge ingrained assumptions, and prompt critical reflections on educational practices. This broader understanding can inform evidence-based reforms and initiatives that have the potential to benefit all students, regardless of their socioeconomic background.

Literature Review

In this literature review, we will delve into the existing research and scholarship that explores the experiences and learning of students in poverty. By synthesizing the findings and analyzing the various perspectives, we aim to shed light on the multifaceted nature of this issue

and provide a foundation for informed discussions and further investigations. Ultimately, our goal is to contribute to a more equitable and inclusive education system that honors the potential of every student, regardless of their socioeconomic status.

Characteristics of Children of Poverty

Understanding the characteristics of poverty is crucial for developing targeted interventions, designing effective poverty reduction strategies, allocating resources appropriately, fostering empathy and awareness, and advocating for policy change. It enables us to address the root causes of poverty and work towards creating a more equitable and inclusive society.

Poverty is a significant risk factor for children's development and well-being, and children from low-income families often face unique challenges that can have long-lasting impacts on their lives. The American Psychological Association (APA) defines children of poverty as those who come from families that experience economic hardship and face a range of social and environmental challenges that impact their development and well-being. Poverty is typically measured in terms of income, with families living below the poverty line being defined as those with incomes below a specific threshold determined by the federal government. Children in poverty are more likely to experience chronic stress, malnutrition, exposure to environmental toxins, and limited access to healthcare, which can lead to a range of negative outcomes, including poor academic performance, behavioral problems, and mental health issues (APA, 2021).

Child poverty differs from adult poverty in that it can have different causes. It can also have different effects, and these effects may have a permanent impact on children. Even short periods of deprivation can affect children’s long-term growth and development (Minujin et al.,

2006). The impact of poverty on children's well-being, development, and mental health has been well-documented in the literature. Poverty can expose children to a range of risk factors, such as inadequate nutrition, poor healthcare, limited access to education, and exposure to violence, which can have long-term negative effects on their physical, cognitive, and emotional development. However, despite these challenges, not all children living in poverty experience poor outcomes. Resilience, the ability to overcome adversity and thrive despite difficult circumstances, has been identified as a critical factor that can protect children from the harmful effects of poverty (Williamson et al., 2016).

Helen Bentley examines the impact of poverty on students in the classroom. Drawing on existing research, she discusses the multiple dimensions of poverty, including economic, social, and psychological factors, and how they can significantly influence students' educational experiences. She emphasizes that poverty can exacerbate existing achievement gaps and educational disparities, leading to reduced academic performance, limited access to resources, and increased dropout rates among students in poverty (Bentley, 2018). Students from poverty-stricken backgrounds often face additional challenges related to cultural identity and social integration, as they may be part of ethnic or racial minority groups that are further marginalized. A child who lives in poverty and is not in a supportive environment has two factors that can be impactful on the overall educational outcome. According to Wallenstein (2012), students living in poverty face numerous challenges, including limited access to quality early childhood education, inadequate nutrition, inadequate healthcare, unstable home environments, and exposure to violence and trauma. These challenges can have a significant impact on students' cognitive, social, and emotional development, which in turn can affect their academic performance. It is common to observe students develop a mindset that includes a sense of

hopelessness, low self-esteem, and limited aspirations, which has a lasting impact on students' motivation, engagement, and academic achievement.

In summary, understanding the characteristics of poverty is important for developing targeted interventions, reducing poverty rates, fostering empathy and support, promoting social justice and equity, and facilitating collaboration and partnership among stakeholders. By gaining insights into the nature and dynamics of poverty, we can work towards more effective and sustainable solutions to alleviate poverty and improve the lives of individuals and communities affected by it.

Collaborative Community Supports

Taking a close look at the effects of collaborative community supports helps us recognize the value of collective action, promotes social cohesion, empowers individuals, optimizes resources, and contributes to the well-being and resilience of its children.

Williamson and Witzel (2016) suggest a dynamic process involving interactions between the child, the family, and the school that must be in place to promote ordinary magic. Having supportive and caring adults who understand the value of supportive relationships develops a community for children where they celebrate mastery, achievement, and a sense of belonging (Wallenstein, 2012).

In order for children to be successful, there is a need for community-based approaches that respect cultural needs and take into consideration the unique experiences, strengths, and challenges that children in poverty face. Positive parenting practices, social support networks, access to high-quality education, and community resources buffer many negative aspects of living in poverty.

Having a multi-faceted approach that involves both school-based and community-based interventions provides a wrap-around layer of support everywhere children go. This includes providing access to resources such as counseling, health services, and after-school programs. Effective leadership in schools and at the district level is also crucial (Wallenstein, 2012). Swanstrom, Winter, Sherraden, and Lake (2013) provide insights into the role of civic capacity in fostering effective school/community partnerships in a fragmented suburban context. Civic capacity is proposed as a key factor in overcoming challenges and promoting successful school/community partnerships.

Once these stakeholders form a healthy partnership and focus on continuous improvement, strong leadership, collaborative decision-making, learning for educators and families, data-driven decision-making, and a culture of high expectations, excellence can be achieved (Cawelti, 2000). Students, teachers, administrators, and parents must agree on a common direction. When one goal is established, then excellence can be achieved. Overall, understanding the impact of collaborative community supports enables us to comprehend the crucial roles they play in creating resilient, sustainable, and thriving supports for students to soar academically.

Unified Educational Structures

Understanding the impact of unified educational structures is crucial for promoting equity, improving the quality of education, facilitating educational mobility, optimizing resource allocation, and enabling effective long-term planning. It empowers educators and stakeholders to make informed decisions and create inclusive and effective educational systems.

When school systems understand the importance of adopting an instructional model that fits the unique needs of its constituents and is dedicated to providing equitable learning

opportunities for all of its children, they will develop policies and practices that include accountability and progress monitoring that ensure their goals are met (Price, 2001). Hines (2008) also emphasizes the importance of fostering effective communication among teachers as a crucial element of successful collaboration. This includes promoting regular communication and feedback among team members, establishing clear channels of communication, and addressing any communication barriers or conflicts that may arise. The ideal culture is developed when parents and families engage in collaborative efforts, recognizing their important role in supporting inclusive practices and creating a positive school-home partnership. Sociocultural learning theory emphasizes the social and cultural aspects of learning, emphasizing the importance of social interaction, collaboration, and cultural context in shaping learning experiences. Knapp (2008) notes that district instructional reform efforts are influenced by the social and cultural dynamics of the educational system, including the relationships between teachers, administrators, students, parents, and other stakeholders.

Effective leaders have a deep understanding of instructional practices and pedagogy. They provide clear expectations and support for teachers to continuously improve their instructional practices. Providing a more collaborative learning environment that fosters ongoing professional development that collects and analyzes student performance data that is used to make informed decisions when making improvements. Corcoran, Fuhrman, and Belcher (2001) express the importance of collaboration and communication within and across districts as a means to foster student learning processes. They argue that districts should facilitate opportunities for teachers and administrators to collaborate, share best practices, and learn from each other.

Ensuring that educational systems and structures are unified is impactful by contributing to the development of inclusive, equitable, and high-quality education systems that foster the intellectual and personal growth of students, preparing them for future challenges and opportunities.

Interventions Used for Academic Acceleration

Determining effective strategies and interventions that can accelerate academic learning is one of the most important factors when trying to recover from learning loss. This information is used to help improve educational outcomes, address learning gaps, optimize resource allocation, promote evidence-based decision-making, and foster continuous improvement in the field of education.

A study conducted by Shideler et al. (2020) focuses on a school district's strategy to curb summer slide among elementary school students. The authors describe the context and implementation of a district-wide summer enrichment program that targeted students in grades 1-5. The program aimed to provide engaging and academically enriching activities during the summer break to prevent learning loss and promote skill retention. The authors conducted a qualitative case study, using interviews and observations, to gather data on the program's design, implementation, and impact.

The study revealed several key findings related to the district's strategy to curb summer slide among elementary school students. Comprehensive program design: The district's summer enrichment program was designed to be comprehensive, incorporating a range of academic and non-academic activities, such as reading, math, science, arts, and physical education. The program also included opportunities for social and emotional learning and family engagement

activities. This comprehensive approach aimed to provide a well-rounded learning experience for students, addressing multiple aspects of their development.

Shideler et al. (2020) found that student engagement was crucial to the program's success.

The program offered a variety of engaging and hands-on activities that captured students' interests and motivated them to participate actively. Students were enthusiastic about the program, and many reported enjoying the learning activities, which contributed to their positive attitude towards learning and academic achievement.

The study highlighted the importance of creating a supportive learning environment for students during the summer program. The program provided a safe and inclusive space where students felt supported by teachers and peers and where their individual needs and interests were taken into account. This positive learning environment fostered students' sense of belonging and helped to build positive relationships between students and teachers.

Shideler et al. (2020) emphasized the importance of professional development for teachers involved in the summer program. Teachers received training and support to deliver engaging and effective instruction during the summer program, including strategies for differentiating instruction, integrating technology, and promoting student engagement. This professional development contributed to the quality of instruction and the overall success of the program. An effective program should include hands-on, interactive, and relevant learning experiences. There are several strengths of the study conducted by Shideler et al. (2020). First, the study addresses an important issue in education, as summer slide is a widespread concern among elementary school students, particularly those from low-income backgrounds. The study provides evidence of the effectiveness of a district-wide summer reading program in mitigating summer slide, which has practical implications for schools and districts looking for strategies to

address this issue. Second, the study used a quasi-experimental design, which allowed for a comparison of the outcomes of students who participated in the program with those who did not. This adds to the rigor of the study and strengthens the internal validity of the findings.

A study by Kuhfeld et al. (2020) found that students who received individualized interventions targeting their specific learning gaps made significant gains in reading and math compared to their peers who did not receive such interventions. Similarly, a review of research by Hattie et al. (2020) found that diagnostic assessments and targeted interventions were effective in improving student learning outcomes.

High-quality instruction is a key factor in expediting learning recovery. Evidence-based instructional practices such as explicit instruction, formative assessment, and feedback have been shown to improve student learning outcomes (Hattie & Timperley, 2007). Differentiated instruction that takes into account students' individual needs and abilities can also be effective in accelerating learning (Tomlinson et al., 2003). Furthermore, engaging instructional strategies such as active learning, problem-based learning, and cooperative learning can enhance student motivation and promote deep learning (Prince, 2004).

The use of technology can be a valuable tool in supporting learning recovery efforts. Adaptive learning platforms that provide personalized learning experiences based on individual student needs and progress have been shown to improve student achievement (Taylor et al., 2021). Online resources and virtual learning tools can also provide additional learning opportunities and support for students who may have missed out on traditional classroom instruction during school closures.

Johnson and Barr (2021) highlight the challenges and strategies of moving hands-on mechanical engineering experiences online during the COVID-19 pandemic. They provide

insights from student perspectives on the effectiveness of various course redesign strategies, including the use of virtual simulations, simulations with physical kits, remote access to laboratory equipment, 3D printing and fabrication, and online collaboration tools. The findings suggest that these strategies can be effective in providing meaningful hands-on experiences in an online environment, although students may face challenges related to technical issues, material availability, and lack of face-to-face interaction.

This literature review provided a foundation of existing research and scholarship on the explored experiences and learning of students in poverty. By synthesizing the findings and analyzing the various perspectives, I aim to shed light on the multifaceted nature of this issue and provide a foundation for informed discussions and further investigations. Ultimately, my goal is to contribute to a more equitable and inclusive education system that honors the potential of every student, regardless of their socioeconomic status.

Addressing Academic Needs

This study and research have contributed to my understanding of the learning processes for children in poverty by providing me with in-depth, data-driven, and contextually rich insights into their educational experiences and the factors that impact their learning outcomes. This expanded knowledge can be valuable for making informed decisions, advocating for change, and working to improve the educational opportunities for these children. A deep dive into the unique challenges and barriers that children in poverty face in their learning processes further illustrates the importance of having equitable access to resources, support systems, and consistency.

Students in Darlington County School District are identified in the public school system are noted as being in poverty if they meet specific criteria. The state of South Carolina identifies individual students in poverty at an individual level using meal eligibility. This method is based

on the following indicators: Supplemental Nutrition Assistance Program (SNAP), Temporary Assistance for Needy Families (TANF), Medicaid (within three years), Foster, Migrant, and Homeless/Runaway. This identification system is based on an encrypted table in PowerSchool populated using local child nutrition program data, the Department of Health and Human Services' Medicaid roster, and other applicable fields within PowerSchool data. District and school administrators have access to this information and use it to understand all aspects of children and the home environment in which they come from.

A routine analysis of NWEA (Northwest Evaluation Association) MAP (Measures of Academic Progress) data was a powerful method for uncovering insights into the impact of the COVID-19 pandemic on learning rates among students, particularly those from economically disadvantaged backgrounds. NWEA is a nonprofit organization that is committed to help school districts throughout the nation improve learning for all students. This organization partners with more than 2,200 school districts. The information gathered by NWEA is used to make informed instructional decisions with the intent to promote their students' academic growth.

Students take a computerized adaptive assessment (MAP). In an optimal administration of this test, a student will answer approximately half of the items correctly and the other half incorrectly. The final score is an estimate of the students' achievement level. The interpretation are made from a measurement scale call "RIT" (Rash UnIT). The RIT score relates directly to the curriculum scale in each subject area. It is an equal-interval scale, like feet and inches, so scores can be added together to calculate accurate class or school averages. RIT scores range from about 140 to 300. Students typically start at the 140 to 190 level in the third grade and progress to the 240 to 300 level by high school. RIT scores make it possible to follow a student's

educational growth from year to year. Our school district uses the MAP test in the areas of mathematics and reading.

The first step in the analysis was the establishment of pre-pandemic baseline information. This means examine the data for a period of time before the pandemic. Data collected one or two years before the Covid pandemic was used to understand the typical growth or learning rates for all students, including those from disadvantaged backgrounds. Next, the analysis focused on the data collected during and after the pandemic. The specific time frames when schools transitioned to remote or hybrid learning due to the COVID-19 pandemic was definitely considered. The data was then compared to assess how students' learning rates during the pandemic compared to the pre-pandemic baseline. For students in poverty, the analysis revealed a significant deviation from their typical learning trajectory. The analysis uncovered the lack of learning rates between different student groups, such as students from low-income backgrounds and those from more affluent families. This segmentation contributed to the identification of disparities in learning outcomes. While the causal analysis may not have directly uncovered the root causes, it did provide valuable insights into the impact of the pandemic on learning rates. It revealed that students of poverty experienced more significant declines in learning, potentially due to challenges like limited access to technology, lack of a conducive learning environment at home, or other economic hardships.

The data illustrates the average NWEA RIT scores earned by students within the district by the types of subgroups they were in (poverty or not in poverty). Additionally, the graphs illustrate the rates of learning between students in poverty and students not in poverty over four academic school years. This timeframe does include the Covid-19 pandemic.

Figure 5:

Student Growth in Reading (2016 - 2021)

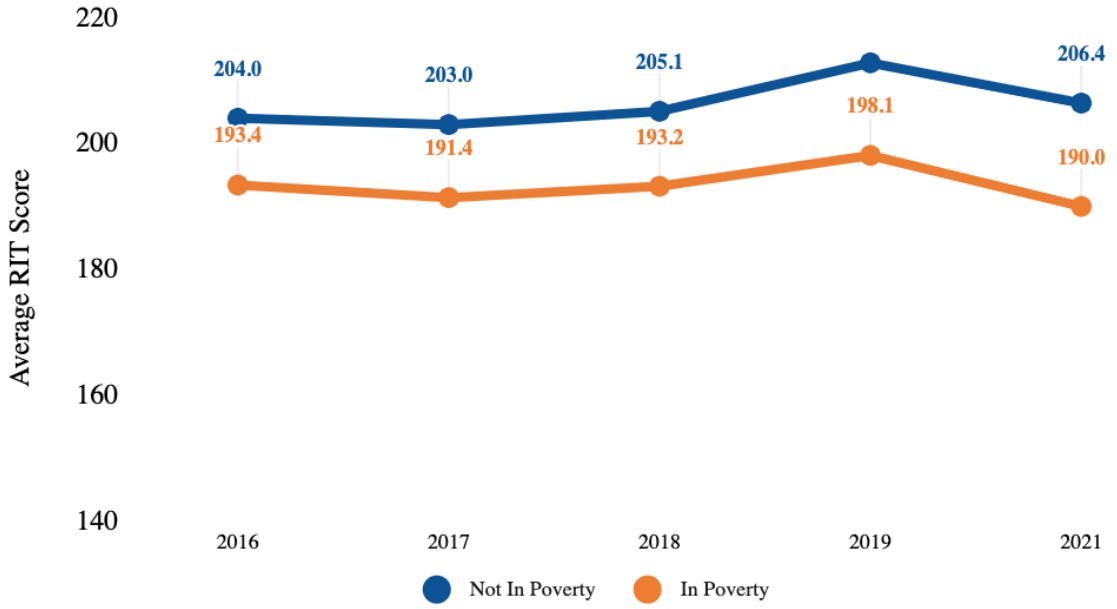
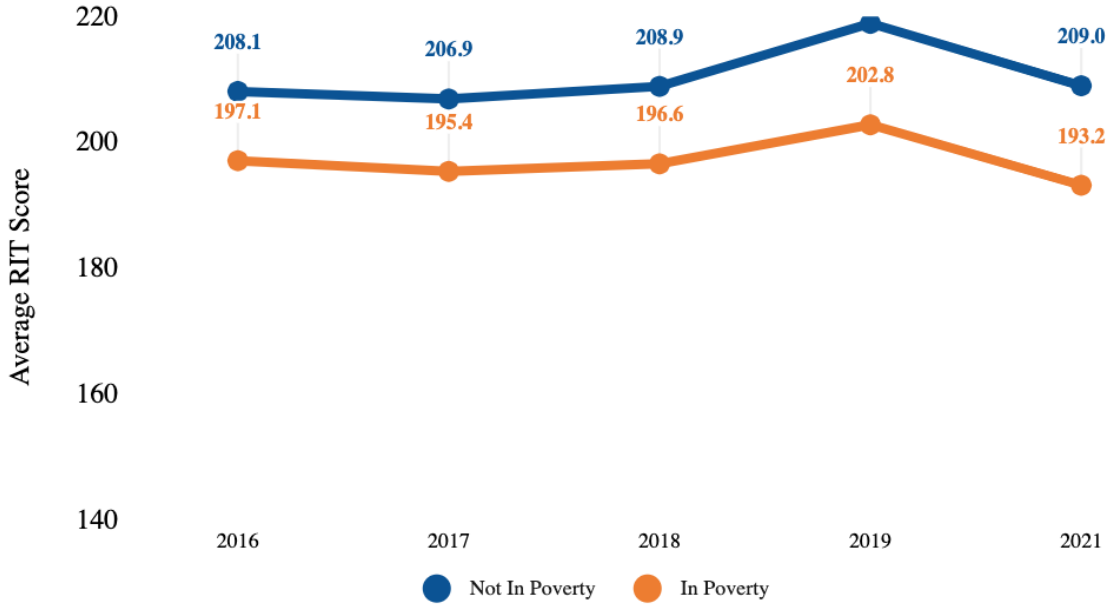


Figure 6:

Student Growth in Mathematics (2016 - 2021)



Note. Spring MAP Results (2016 - 2021) are illustrated in the graphs provided in the areas of Reading and Mathematics. Proficiency level trends are the move in the same direction for both

subgroups. Students were slowly increasing their performance levels until 2019. After the COVID-19 pandemic (2020), student performance had a significant decline. In both Reading and Mathematics, the mastery level trends overall for "students of poverty" is lower than students that are "not in poverty." Over the 6-year analysis, there is a significant achievement gap between the 2 subgroups.

Figure 7:

Student Rates of Growth in Reading (2017 – 2021)

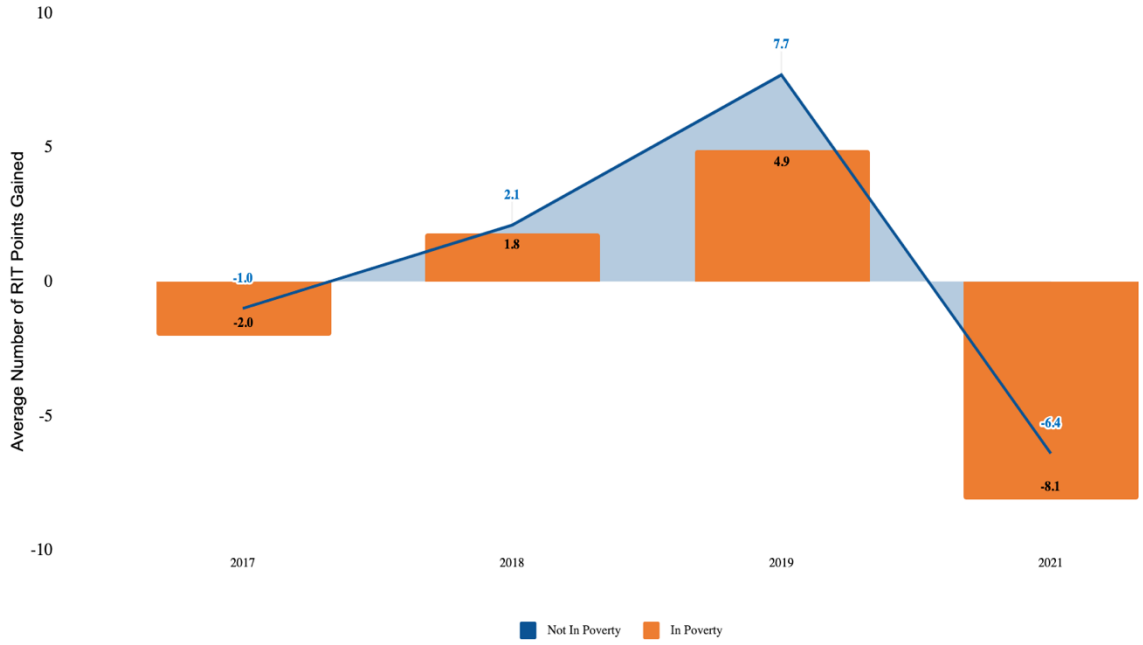
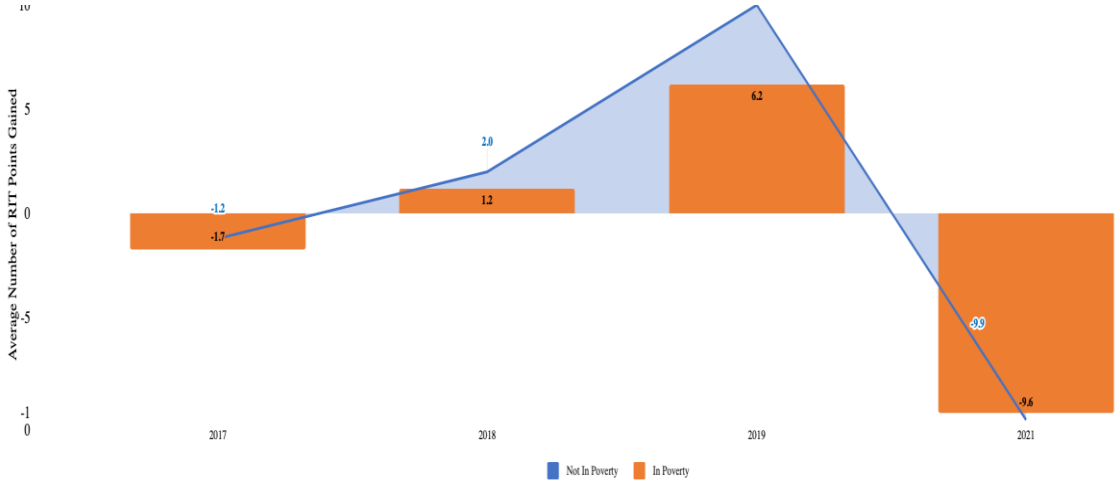


Figure 8:

Student Rates of Growth in Mathematics (2017 - 2021)



Note. Spring (end of each year) MAP Results (2016 - 2021) are illustrated in the graphs provided in the areas of Reading and Mathematics. Proficiency level trends are the move in the same direction for both subgroups. Students were slowly increasing their performance levels until 2019. After the COVID-19 pandemic (2020), student performance had a significant decline. In both Reading and Mathematics, the mastery level trends overall for "students of poverty" is lower than students that are "not in poverty." Over the 6-year analysis, there is a significant achievement gap between the 2 subgroups.

We see that as students in poverty increase their academic performance, their rate of learning is not as fast as students who are not in poverty. When there is a decline in academic performance with both groups, students of poverty tend to decrease at a faster rate. This poses a bigger problem when attempting to regain ground that has been lost and moving forward with growth that is normally expected.

The improvement science approach was considered because it provides a systematic, evidence-based, and action-oriented framework for research that could focus on accelerating the learning processes of students in poverty. Patterns of results can aid in identifying problems, which can lead to developing and implementing practical solutions that make a positive impact on the educational outcomes of these students. The quantitative data collected can provide concrete insights on the rates of learning and factors that affect outcomes of their learning experiences.

Overall, this study and research would likely expand my understanding of the learning processes for children in poverty by providing me with in-depth, data-driven, and contextually rich insights into their educational experiences and common factors that impact the rates of learning. This expanded knowledge can be valuable for making informed decisions, advocating for change, and working to improve the educational opportunities for all children.

Study Significance

Conducting research on accelerating the learning for students in poverty can be a meaningful endeavor with the potential to effect positive change in schools and the entire

district, as well as in the state of education in South Carolina. This type of study will create targeted solutions with a focus on the specific challenges and learning barriers that students in poverty face in your local community and school district. Challenges such as limited access to resources, inadequate support, or socioeconomic disparities in educational outcomes will be considered. Finding solutions would help schools and districts create a well-defined research plan that outlines your research goals, objectives, and methodologies.

This study can improve educational outcomes, experiences, and systems in several ways, ultimately leading to positive changes in the education landscape. Educators can make data-driven decisions based on the insights and recommendations from the research. Effective teaching strategies can be specifically identified to benefit the specific subgroup of students. Educators can integrate these strategies into their teaching practices, creating more engaging and impactful learning experiences. Schools and districts can invest in professional development programs for educators, focusing on strategies that work best for students in poverty. This can help teachers adapt their teaching methods to meet the diverse needs of their students.

The research could highlight the importance of community involvement in supporting students. Collaboration with local organizations and community members may provide holistic support systems for students, both inside and outside the classroom. From these types of efforts, mentoring and support programs could evolve that provide individualized assistance to students facing economic challenges. This research could be a guide to design and implement such programs. Understanding students' needs may emphasize the importance of involving parents and families in their children's education. Educators can establish stronger partnerships with parents, offering guidance and resources to help support their child's learning. There may be a culture established that enhances cultural competency to better understand and address the

unique needs and backgrounds of students in poverty. This can lead to more inclusive and equitable educational experiences.

Schools and districts can adopt a culture of continuous evaluation and improvement, using this research as a foundation. This approach allows educators to refine their practices and policies over time, ensuring that they are meeting the evolving needs of students in poverty. The overall findings can be used to advocate for changes in education policies at the local and state levels. These changes may include adjustments in funding models, curriculum design, or standardized testing practices that better serve students in poverty.

Addressing the learning needs of students in poverty is a critical component of achieving educational equity. By conducting this research, we can contribute to reducing disparities in educational outcomes, ensuring that all students have a fair chance at academic success, regardless of their socio-economic background. Education is one of the most powerful tools for breaking the cycle of poverty. By improving the learning experiences and outcomes for students in poverty, we can help them gain the knowledge and skills needed to pursue higher education and secure better job opportunities, ultimately improving their economic prospects.

Research in this area is closely tied to the principles of social justice. It highlights the importance of addressing systemic inequalities in education and providing all students with the resources and support they need to succeed. A well-educated population is crucial for the economic development and prosperity of a region or nation (Education Opportunity: Our Pathway to Prosperity, n.d.). When students in poverty receive a high-quality education, they are more likely to become productive members of society, contributing to economic growth and reducing the burden on social welfare systems. Education is a form of human capital development. By enhancing the education of students in poverty, we will be investing in the

development of the next generation's workforce, which can lead to increased productivity and innovation in various sectors. A quality education not only prepares individuals for the workforce but also fosters civic engagement (Campbell). Well-educated citizens are more likely to participate in the democratic process, contribute to their communities, and advocate for positive social change.

Every student, regardless of their background, has unique talents and potential. Conducting research on accelerating the learning of students in poverty is a way to ensure that all students have the opportunity to develop their talents and reach their full potential. In an increasingly globalized world, nations must compete on the basis of their human capital. By addressing the educational needs of all students, including those in poverty, a region or nation can enhance its global competitiveness.

What is unique and important about this study is that it focuses on a specific and vulnerable population that faces unique challenges in their educational journey. Students in poverty often confront a range of obstacles, such as limited access to resources, unstable living conditions, and inadequate support systems, which can significantly impede their learning and future opportunities. By conducting research in this area, we will be shining a light on these specific challenges and seeking solutions that are tailored to the needs of this group. Furthermore, the impact of this research extends beyond the individual students to their families, communities, and society at large. It has the potential to effect positive, long-term change that goes beyond the classroom and contributes to a more equitable and prosperous society.

Chapter Two: Theory of Improvement

The findings from literature reviews can be valuable for researchers, policymakers, district leaders, and teachers who are working to understand the importance of the many variables that are involved with accelerating the learning processes of children in poverty. The articles discussed previously in Chapter One clearly explain the importance of developing supportive and collaborative protective factors that promote resilience in vulnerable populations. With this in mind, I will narrow the focus of the intervention to specifics that we can control: providing additional instructional time with consistent and effective instructional strategies in which resources and materials are equitably provided to all students. We will develop a conducive learning environment for our students that include factors of support and system-wide structure. The illustration below provides a logic model of the recommended process.

Table 6

Implementing Solutions (Logic Model)

Context	Inputs	Activities	Outputs	Short-term Outcomes	Long-term Outcomes
COVID-19 Pandemic has caused learning gaps	Extended learning time	Teacher training on common strategies and curriculum	Academic Enhancement Program (AEP) developed	Development of a supportive, conducive learning environment	Student data shows accelerated growth
	Planning for the Academic Enhancement Program (AEP)	Data analysis	Students master fundamental skills that should have been acquired in previous grades	Accelerated learning that begins to close learning gaps	Increase in academic achievement results

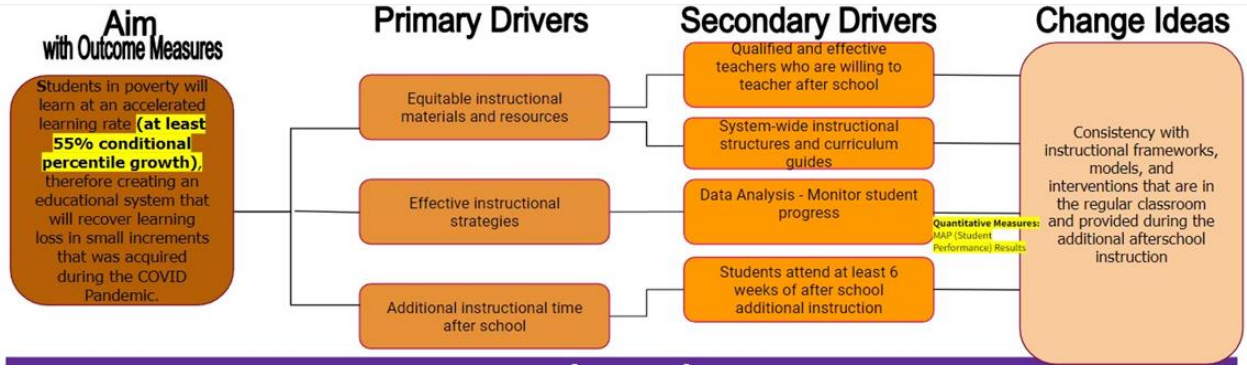
Proposed Intervention

In an effort to create change with the kindergarten through 8th-grade students who experienced at least three to six months of learning loss, educational systems will have to be intentional when providing common learning opportunities and experiences for all children. Teachers will have to possess common skill sets, materials/resources must be readily available, and parents will have a clear understanding of what it means to support the learning process effectively.

I will introduce the concept of providing consistency with common practices when providing daily instruction during the regular school day and providing additional time for instruction that has a specific focus on individual students' needs.

Figure 9:

Change Theory (Driver Diagram)



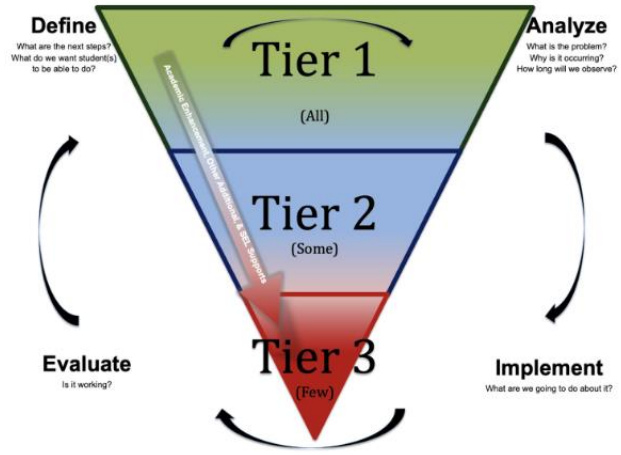
My proposed intervention is to create a supplemental academic program that will enhance the day-to-day processes that occur in the regular classroom setting for all students. This means of providing additional enrichment to identified students will be called the Darlington County School District Academic Enhancement Program. Its intent primarily will be to provide additional instructional time to recover some of the time that has been lost. This program will be set up throughout the entire school district to serve students in grades K through 8. While

instructional content will not be vastly different from what is taught in the regular school day, there will be a very deliberate attempt to create small group learning structures that will allow teachers to have a more personalized approach to teaching students. Teachers who provide instruction in this afterschool program will work closely with the teachers who teach the same students during the regular school day. Additionally, time will be scheduled during the regular school day, and after school so all the teachers will be provided professional learning support to reinforce the processes and need for ongoing communication and collaboration.

In addition, this structure will include a system of support that will create personalized pathways for its students with individual interventions. Darlington County School District must provide a system-wide approach to learning for our students that does not introduce anything new but instead pulls all of our best strategies together to make one impactful and practical framework. I believe that if this model, which provides additional instructional time, is implemented with fidelity and in small group instruction as early as possible, we will observe students' progress with academic performance that closes gaps in learning or slows the learning loss process down.

Figure 10:

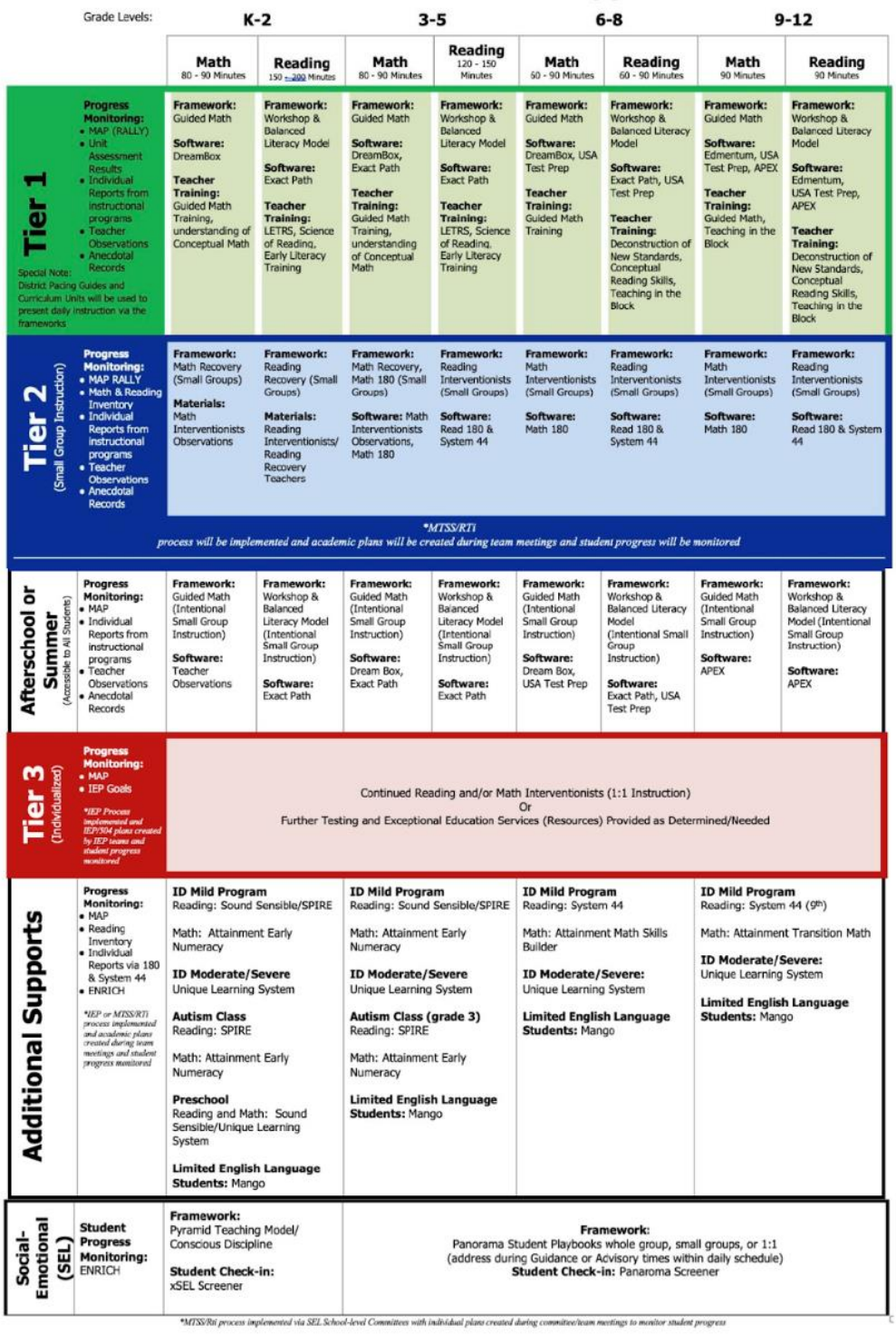
Levels of Instructional Support



Note. Figure 2 illustrates the different levels of instruction that can be provided to meet all children's needs. Tier 1 (all students), Tier 2 (small groups), and Tier 3 (clinical and prescribed instruction for identified problems). There is an ongoing cycle of review and teacher collaboration, so adjustments to the strategies can be made periodically and intentionally.

Figure 11:

District-wide Instructional Framework and Expectations



Missing school for a prolonged period did have a negative effect on the children of Darlington County. All stakeholders will be responsible for providing a fair and level playing field. Providing a structured instruction system and working intentionally to provide systems of support should enhance the quality of our students' learning experiences and provide equal access to relevant opportunities.

Data Collection Method

In today's dynamic and competitive landscape, school systems across our nation face mounting pressures to continuously improve their processes, systems, and outcomes. To stay ahead and thrive in this everchanging world, there is an increasing need for rigorous methodologies that can identify, analyze, and implement effective improvement strategies. Improvement science has emerged as a powerful paradigm for guiding these transformational endeavors, offering structured frameworks and evidence-based tools to enhance organizational efficiency. In this dissertation, we embark on a journey to explore the vast potential of improvement science, leveraging a quantitative case study methodology, to address the multifaceted challenges faced by modern organizations.

The core premise of improvement science lies in its systematic approach to understanding complex systems and the targeted interventions designed to bring about positive changes. This research will emphasize the process for students' continuous learning and iterative problem-solving, with a strong focus on implementation and practical application. By integrating theory, evidence, and the wisdom of frontline practitioners, this approach fosters collaboration and empowers organizations to make data-driven decisions, driving positive transformation within their specific contexts.

The quantitative case study methodology serves as an ideal partner, providing a structured means to analyze and measure the impact of improvement efforts. Through a rigorous investigation of real-life cases, this methodology allows researchers to collect rich and nuanced data, examine patterns, and derive generalizable insights. By employing data-driven tools and statistical techniques, quantitative case studies offer a robust means to test hypotheses, identify trends, and establish causality, ensuring the research findings are both valid and reliable.

There are several key reasons why quantitative case study methodology is particularly useful in addressing contemporary organizational challenges. First, I will develop a holistic view of the organization, enabling a perspective to identify interconnected components and assess the impact on overall performance. Second, by actively engaging stakeholders throughout the improvement process, this approach will foster a sense of ownership and commitment, which should enhance the likelihood of successful implementation and sustainability of positive changes. Third, the quantitative case study methodology approach provides an objective lens to measure and quantify the impact of improvement initiatives, enabling collection of evidence to ascertain the effectiveness of specific interventions and their broader implications for organizational success.

Darlington County School District has been working frantically to meet the expectation of creating common and districtwide systems. School level and district level stakeholders have been sharing information about needs, along with creative ideas, that can be considered to address common identified problems. Additionally, our district has decided to focus on developing district-wide systems that will provide equitable access to instructional resources, technology tools, and a unified and consistent set of instructional guides used for all student instruction towards the same path. When laying out a district plan, there was a general

consensus to establish priority with the subjects of English/Language Arts and Mathematics in all grade levels. NWEA Research has shown that student learning has been greatly impacted, and there is a major decline in Mathematics. The Darlington County School District Academic Enhancement Plan will not only address the need to do something about student learning loss because of the pandemic, but it will also develop daily structures that strengthen general education (Tier 1) for all students, academic supports for students that have been identified as struggling or having specific learning difficulties (Tier 2 and Tier 3), and students/staff members with highly impacted social and emotional traumatic problems that have been developed.

Darlington County School District has been working frantically to meet this expectation. School level and district level stakeholders have been sharing information about needs, along with creative ideas, that can be considered to address identified problems. Our district has decided to focus on developing district-wide systems that will provide equitable access to instructional resources, technology tools, and a unified and consistent set of instructional guides used for all student instruction towards the same path. When laying out a district plan, there was a general consensus to establish priority with the subjects of English/Language Arts and Mathematics in all grade levels. NWEA Research has shown that student learning has been greatly impacted, and there is a major decline in Mathematics. The Darlington County School District Academic Enhancement Plan will not only address the need to do something about student learning loss because of the pandemic, but it will also develop daily structures that strengthen general education (Tier 1) for all students, academic supports for students that have been identified as struggling or having specific learning difficulties (Tier 2 and Tier 3), and students/staff members with highly impacted social and emotional traumatic problems that have been developed.

During the COVID-19 pandemic, students from economically disadvantaged backgrounds faced disproportionate challenges in their educational journey. As schools transitioned to remote learning, these students encountered barriers such as limited access to technology, internet connectivity, and inadequate learning environments. The pandemic further exacerbated existing educational inequities, leaving students of poverty at a significant disadvantage in terms of academic progress and achievement.

To address this pressing issue, the district implemented an Academic Enhancement Program (AEP) aimed at providing additional instructional time and support to students in need. The program's structures and strategies were designed to mitigate the impact of the pandemic on these students, offering tailored interventions to bridge learning gaps and foster academic growth. This dissertation seeks to examine the effectiveness of the AEP and explore how its various components contributed to the educational advancement and overall well-being of students of poverty.

Through a rigorous exploration of the AEP's implementation and outcomes, this research aims to shed light on the following key question: Does providing additional time with consistent instructional strategies increase the rates of learning for students of poverty?

By investigating the district's Academic Enhancement Program as a case study, this research seeks to contribute valuable insights into effective educational interventions for students of poverty during times of crisis. The findings of this study have the potential to inform educational policies and practices, guiding schools and districts in their efforts to create equitable learning opportunities and support systems for vulnerable student populations. Ultimately, the aim of this dissertation is to advance the understanding of how educational institutions can better

serve and uplift students of poverty, even in the face of unprecedented challenges like the COVID-19 pandemic.

Systemic frameworks, common resources, and teacher training(s) on progress monitoring for student growth have already been provided for schools and staff members in the district. All students in Darlington County School District should have similar learning experiences and opportunities during the regular school day. Additionally, our students should be able to attend classes daily and have all work documented through a common instructional computerized programs. If they attend supplemental programs that are designed to provide additional time, the teachers of these extended opportunities should be able to access student data and documents "on the spot" to continue the prescribed pathway that has been designed personally for each child without any disruption. No student should ever receive or feel as if he/she is being given "busy work" in which connections to all of their learning do not coincide.

Once the instructional structures are established as described above, Professional Learning Communities (PLCs) will only enhance the development of our teachers. Lack of common structures will no longer be a barrier that prevents relevant and meaningful discussions. All of the district's educators will have opportunities to really experience "on the job" learning in which they share the responsibility and work together to solve their own problems. Teacher leader groups will be strongly encouraged and developed, and shared leadership will allow all stakeholders to be fully involved and vested. Moreover, these are proven best practices that yield a win-win result for everyone… leadership, teachers, and most importantly, students.

Student data will be used interchangeably with daily Tiers One, Two, and Three instruction throughout the entire process. Quantitative data, student academic performance results, will be collected via MAP, Reading/Math Inventory, Exact Path, Student Island,

DreamBox, Read/Math 180, APEX, ALEK, and USA TestPrep. Qualitative data will be collected from Panorama and ENRICH via SEL and student engagement surveys. Information from all instructional tiers (one,two, and three) will inform our teachers of the type(s) of support that students may need in a very prescribed and systematic way. It is our belief that we will accelerate student learning when we monitor student performance closely, support teacher collaboration, and encourage them to reflect on their weekly outcomes. Providing more instructional time along with providing frequent and consistent feedback in a timely manner, yields to what we call our "Fail Fast, Fix Fast" Framework for Quality Learning.

Moving forward, timelines for data analysis will be put in place to monitor student growth. The following data and information will be collected using exports of existing databases that collect this information on a regular basis: student daily attendance (Power Schools and Frontline) and student academic performance data (NWEA MAP results and state standardized test results).

Teachers, along with their students, will also review this data on a consistent basis (biweekly). They will have meaningful conversations with their students to set goals and review progress to determine whether learning objectives have been accomplished. These types of discussions will make a significant impact on student success when conducted weekly and biweekly. The schools' leadership teams will collect this data quarterly and review it to make more systems-approached decisions.

Table 7

Data Collection Timeline

Guiding Question(s)	What information do I need	How will it be collected?	Who will collect it?	When will it be collected?	What will happen after it is collected?
How will all teachers be trained/prepared to implement the same instructional model to ensure that all students within the school district have the same quality learning opportunities?	Data to determine that instructional practices are implemented as expected.	Information from observations and survey	District-level instructional team	Beginning and end of the program and biweekly	The district-level instructional team will meet to analyze results and develop next steps. Gathered information will be shared with the school-level instructional teams for reflection and to begin developing the next action steps for their buildings.
How will teachers determine whether or not students are making significant progress throughout the program's implementation?	Consistent attendance of students with active participation.	Surveys and observations Attendance data pulled from PowerSchool	District and school-level instructional teams	Beginning and end of the program and biweekly	The district-level instructional team will meet to analyze results and develop next steps. Gathered information will be shared with the school-level instructional teams for reflection and to begin developing the next action steps for their buildings.
How will teachers create an environment that supports each student having a personalized pathway that is tailored to an individual student's needs?	Daily progress reports will be provided by computerized instructional programs. Student interaction and responses.	Teacher conferences with students and weekly reports from interactive programs.	Teachers and school-level instructional teams	Daily and after each designated student progress checkpoint	Gathered information will be discussed in school-level meetings with teachers and school-level instructional teams to inform the next action steps for their students.

Throughout this dissertation, we will delve into the theoretical underpinnings of the quantitative case study design, and showcase the practical application of our real-world organizational contexts. By shedding light on the effectiveness of this approach, we hope to contribute valuable insights to the field of improvement science and equip other school systems with evidence-based strategies to thrive in an ever-evolving global landscape. Ultimately, this research strives to pave the way for a more efficient, resilient, and prosperous future for school systems and the students that they serve.

Data Analysis

Quantitative data analysis entails a rigorous and methodical approach, involving the use of statistical techniques and data visualization to interpret the numerical data amassed from surveys, questionnaires, assessments, or other quantitative instruments. This analytical journey not only helps to make sense of the raw data but also allows us to test hypotheses, uncover associations, and draw generalizable conclusions, lending credibility and rigor to our research findings.

The overarching purpose of this section is to present a comprehensive account of the analytical methods employed, detailing the tools, procedures, and rationale behind the chosen analytical techniques. By providing transparency in our data analysis process, we strive to ensure the reliability and replicability of our results, reinforcing the credibility of our research outcomes

Our data collection cycles will need the following information for review: teacher professional performance and attendance, student performance and attendance, teacher planning processes, student, teacher, and parental interaction data, culture and climate data, and listings of materials, resources, and assets. This information will be collected using several different data sources: student daily attendance (Power Schools and Frontline), classroom observations, student

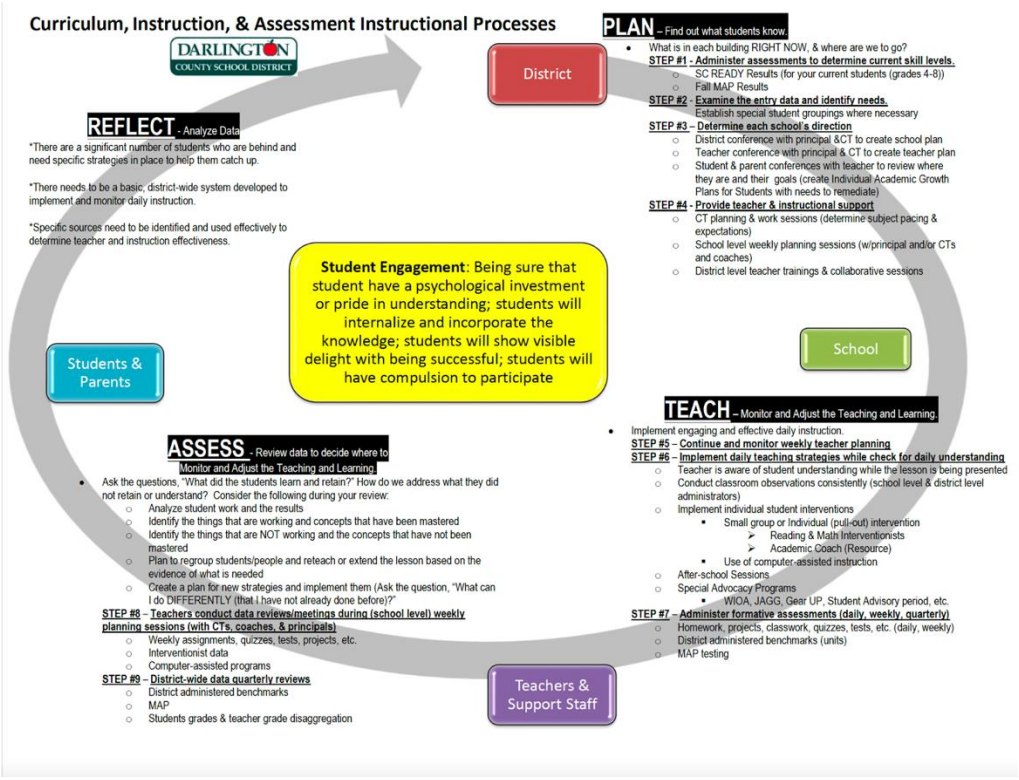
academic performance data (NWEA MAP results and state standardized test results), and PLC (Professional Learning Communities) conversations/minutes (notes).

Throughout this section, we will discuss the various stages of quantitative data analysis, starting with data preparation and cleaning to ensure the accuracy and integrity of the dataset. Subsequently, we will explore the descriptive statistics used to summarize the key characteristics of the data, enabling a clear and concise presentation of the dataset's central tendencies, variabilities, and distributions.

The complete cycle that stakeholders will follow repeatedly includes a four-step process that has specific intentions: planning, doing, studying, and acting. This problem-solving cycle is known as the Plan-Do-Study-Act (PDSA) Cycle. Its steps are deliberate with the specific intentions that help those involved be directed and redirected to effective problem-solving strategies.

Figure 12:

Framework for the Instructional Process (Plan-Do-Study-Act (PDSA) Diagram)



During the “Planning” portion of the cycle, the internal assets, school-level educators will determine to what level each student is currently performing and instructional strategies will be most beneficial when imparting new knowledge to the students. Secondly, in the “Teach” portion, weekly growth goals will be set with/by students and their teachers. Following, new learning instruction will take place. Then mastery checks will be conducted in the “Assess” phase where students will be administered formative assessments. These assessments are intended solely to determine whether or not students are grasping the learning. Data from these assessments will be reviewed and analyzed to determine whether or not the teaching was effective. Finally, teachers and school leaders will “Reflect” on the results and decide on the pathway to move forward with to start the cycle all over again.

Moreover, this section will delve into inferential statistics, where we employ a range of hypothesis tests, correlation analyses, regression models, or other advanced statistical methods to examine relationships and test the significance of observed associations. The results obtained from these analyses will be presented alongside the appropriate interpretations, facilitating a deeper understanding of the implications and significance of our research findings.

In addition to statistical analyses, we will utilize data visualization techniques to present the quantitative data in a more accessible and illustrative manner. Graphs, charts, and diagrams will be utilized to visually represent patterns and trends, aiding in the communication of complex statistical information to a broader audience.

Lastly, as we engage in quantitative data analysis, we must be mindful of the limitations and assumptions inherent in the chosen analytical methods. These considerations are crucial for

acknowledging the scope of our findings and recognizing potential areas for future research or improvements in data collection and analysis.

The PDSA Cycle will be repeated over and over weekly, biweekly, and monthly to include district-level leaders when appropriate. The findings and plans will be shared with school members, and state-level steering committees, and reported to the state and federal government offices when requested. This problem-solving cycle will continue over and over in hopes of systemically developing strong internal networks that provide and support student learning. Developing systems that are collaborative and work together can surely benefit our educational institution and the children we serve, just as this type of cohesive thinking brings about some of the greatest medical and scientific inventions and discoveries that have come about that we benefit from today.

All stakeholders will have a major role to play in reviewing data. Teachers will have powerful conversations with their colleagues and school leadership during regular Professional Learning Community times. Teachers will also have meaningful conversations with their students to set goals and review progress to determine whether or not learning objectives have been accomplished. These types of discussions will make a significant impact on student success when conducted weekly and biweekly. These types of data review structures create ideal environmental tones that eliminate finger-pointing and fault-finding, therefore creating a more inviting and positive approach to problem-solving and accountability. Finally, the schools' leadership teams will collect this data monthly and quarterly to make more systems-approached interventions and decisions.

Through this rigorous and comprehensive analysis of quantitative data, we endeavor to offer meaningful insights that contribute to the broader knowledge base within our field of study.

By adhering to robust analytical practices, we aim to bolster the validity and reliability of our research outcomes and, ultimately, to enrich the scholarly dialogue surrounding our research topic.

We must provide a system-wide approach to learning for our students that does not introduce anything new but instead pulls all of our best strategies together to make one impactful and effective framework. I believe that if this model, which provides additional instructional time, is implemented with fidelity and in small group instruction as early as possible, we will observe students' progress with academic performance that closes gaps in learning or slows the learning loss process down.

Creating a district-wide system with consistent processes that enable teachers to develop personalized learning pathways for students, along with providing additional time, is believed to create a very prescribed set of solutions that will yield learning gains. A repetitive process in which there is an ongoing dialogue between teachers to share information and refine daily instruction through cycles of conversation will ultimately benefit the students.

Ethical Limitations and Considerations

Ensuring Every Student's Academic and Social Success

All students in our school district will be provided equal access and equitable learning opportunities. There is current research that supports these efforts and explains the variables that can cause discrepancies with results. PACE Newsroom Researchers conducted a qualitative and quantitative study using the theoretical framework that shows the significant learning loss affected between low income students and limited English learners (ELLs) and all other students. Major findings noted in this article that contribute to defining notions of accountability and supports equitable guidelines and practices for children include:

The pandemic and related disruptions in providing consistent instruction makes a difference when it comes to learning loss in English/Language Arts and Math.

The equity impact is severe. Certain student groups, especially low-income students and English language learners, are falling behind more compared to others.

Addressing students' learning loss will require a student-centered approach that puts family and student relationships first. There needs to be a systemic approach that will be implemented consistently in how schools address the overlapping learning, behavioral, and emotional needs that support effective learning and teaching (Pier et al., 2021).

When ensuring that the action research contains district practices that support ethical actions and strategies that assists all students with being successful, we will use the same assessment (instrument) across the district for determining academic growth, all teachers will be provided with the same training, all students will be provided with the same resources and framework for learning, all students will be given the same timeline for receiving additional instructional support, and small group learning will be conducted in all classes to ensure that there is a personalized pathway created for each child which will address his/her individual needs.

Students who have been observed as having significant learning loss will be targeted and invited to participate in the program(s). Additional adult support will be provided where needed to ensure that class size remains small where there is not enough teacher support. Increase in educator stipends will be provided to ensure that teachers and other support staff are available for all schools. Materials will be purchased for schools that did not have the adequate learning materials on-site during the regular school day. These materials can also be used during the

regular school day as well. Timelines will be created for all schools to adhere to with providing common assessments and reporting student progress data.

Modeling Principles of Self-awareness, Reflective Practice, Transparency, and Ethical Behavior

The article Learning Loss, in General, Is A Misnomer: Study Shows Kids Made Progress During COVID-19 provides information that can be very beneficial to school districts and their schools on how to best plan to allocate resources to assist students catch-up. Providing sufficient funds and adequate time where students need it greatest is the best strategy (Schwartz, 2021). Students will be invited to attend the after-school program by their schools. Their parents will be contacted to share the need for them to have additional instructional time, which should result in better learning outcomes. Additionally, any parents that request permission to have their children participate will have the option of enrolling their children also. Teachers in the after-school and summer sessions of the Darlington County School District Academic Enhancement Program will meet regularly (PLCs) to discuss the effectiveness of instructional strategies. They will also discuss coming ideas for introducing new information that may be most effective with their students. Following, it will be the expectation to regularly report student data/outcomes to review, analyze, and serve as information when planning further instruction. Reflection is a very powerful strategy and teachers will be strongly encouraged to consider what strategies they can do differently when not noticing the student growth they are expecting.

It will also be imperative that school-level administrators attend the teacher training sessions to fully understand the expected approach(es) for teaching in small groups during the Academic Enhancement Program. Though the current disparity in students' learning opportunities is vast, and not all children have access to the kinds of rigorous, deep learning

needed to allow them to critically engage with and re-imagine their communities and world, we see teacher learning as a pivotal lever for transformation (Riordan et al., 2019). With understanding the instructional expectations, school-level administrators and instructional coaches must visit classes regularly and consistently to conduct classroom observations and provide teachers with immediate feedback to ensure that daily instruction is having a positive impact on student learning and growth.

Safeguarding Democracy, Equity, and Diversity

PACE Research Group conducted a comparative data analysis including eighteen districts with a combined fifty thousand students. This study demonstrated the need for equitable resources and systems of support that have an impact on student learning. The student population is diverse, but it does not perfectly match the student population across the state of California. While the student population is diverse, it does not represent all of the diverse groups in the state (Pier et al., 2021). Darlington County School District school-level academic leadership members and teachers will have the opportunity to share their opinions about structures and the manner in which to implement the expected learning. Wherever there are schools or students that require additional support (example: behavior shadows). There will be financial funding provided to ensure the issue of certain schools being provided with what they need (because they are noted as being “priority schools” with urgent needs. Student progress will be communicated to parents regularly to be sure to involve the family unit so they understand the relevance of their students participating in the program. They will also make families aware of the importance of their reinforcement at home. When reviewing the some problems Schwartz noted that both studies are qualitative factors. Some students took the tests

in-person and some took it at their homes. Reliable internet connection would be another factor that weighs-in on the end results. The most vulnerable students who had the least access to quality instruction would present a major concern with the end result as well. Some communities felt really hard impacts of COVID by experiencing higher death rates, infection rates, and rates of essential workers absent from homes. But most importantly, students who are not represented at all because not taking the tests consistently during both Fall academic sessions leave much to be wondered about how they would factor into the findings (Schwartz, 2021).

All students will be provided with adequate materials and resources to ensure that there is a fair and level "playing field" that is being provided by the school district to ensure that all students have access to the same types of learning opportunities and experiences. There will also be the usage of the same types of instructional software that will be used to gather student performance data. This information will be used to assist in monitoring student growth targets and the success of meeting them. Hopefully, the use of instructional technology will help in removing bias and subjective viewpoints that can skew end results.

Evaluating Potential Moral and Legal Consequences

Missing school for a prolonged period will likely have major consequences on student achievement. The Covid-19 pandemic has brought to the forefront the need to create processes and practices structures that ensure that schools stay prepared to continue instruction and provide support to students so that those who are already behind do not get further behind (Kuhfeld et al., 2020). Throughout the school year, schools that have been noted as having greater needs and higher priority for students' learning needs will participate in targeted learning instructional trials. There are trial initiatives in targeted schools with the same learning structures in place. Student progress and growth will be monitored to determine that the practices are effective and

yield the desired results. These practices will be monitored for at least nine weeks to determine specific trends and patterns before concluding that they are effective practices. Before making the decision to fully implement various small group learning structures, funding and resources will be reviewed to ensure that all students have adequate access.

Processes and procedures for rollout, implementation, data collection, and evaluation will be created system-wide so that there will not be any practices that provide inequitable advantages. All students will be provided with the same timeframes, standards for learning, and resources. All teachers will be provided with the same professional development, which will then ensure that all students are provided with high quality teaching and learning experiences. NWEA conducted a study and created a brief that takes a very detailed observation of student performance during the Covid-19 pandemic in the areas of reading and mathematics as compared to student performance results when schools close during summer months. Quantitative research of this kind provides specific evidence of norms that have been observed over time. This information can be used for policymakers, educators, families, and community stakeholders when creating strategies and structures for providing support (Kuhfeld et al., 2020).

The goal of social justice is to advocate for the elimination of systems of oppression, inequity, inequality, or exploitation of marginalized populations and communities (Constantine et al., 2007). School board members have reviewed all instructional policies to ensure that they are up-to-date and meet the needs of all students with fair and equitable expectations and procedures. District-level instructional leaders, along with school-level instructional leaders, create and review daily strategies and practices that meet the educational needs of all students.

Overall student outcomes will be reviewed by teachers, school leaders, and district instructional leaders. In the event that a parent does not agree with a student's outcome, the

parent will have an opportunity to appeal the decision through an appeals process that will include sharing the concern(s) with the building-level principal, having the district-level Assistant Superintendent for Curriculum, Instruction, and Assessment review it, then finally shared with the district's Superintendent if necessary. Hopefully, the conflict can be resolved at the school building level, but it will be reviewed at higher levels as necessary if no concluded agreement is made. Instructional decisions will not be reviewed by the school board (as stated in district policies). The Superintendent will be the final level of instructional appeal. Arthur, Lorean German stated that creating systems that advocate for student voice is most powerful. There is power in student voice, and it isn't a voice any teacher can give. We don't give voices. We make space for them in our curricula and classrooms, or we don't. Especially in times like these when our nation is burning, we should listen to the young people (German, 2020).

Chapter Three: Research Findings

In the quest to tackle the pervasive issue of learning gaps among students of poverty, education leaders often find themselves navigating a complex entanglement of challenges. These challenges demand not just interventions but systematic, evidence-based approaches that can drive sustainable change. In this chapter, we delve into the application of Improvement Science, particularly the Plan-Do-Study-Act (PDSA) framework, as a strategic tool to address the learning gaps effectively.

Improvement Science offers a structured methodology for driving positive change in complex educational systems. At its core, Improvement Science is rooted in the belief that improvement is an iterative process, requiring continuous learning and adaptation (Hinnant-Crawford, 2020). The Plan-Do-Study-Act (PDSA) framework serves as the cornerstone of Improvement Science, providing a systematic approach to test, implement, and refine interventions.

The first phase of the PDSA cycle involves careful planning. This entails identifying the problem, setting clear objectives, and designing interventions to address the identified issue. In the context of our inquiry into learning gaps among students of poverty, the planning phase involved delineating specific learning objectives, determining the additional instructional time required, and outlining the strategies to deliver this additional support effectively. (e.g. Figure 12)

Once the plan was in place, the next step was to execute the interventions as outlined. This phase involved implementing the strategies in real-world settings, whether it be extending classroom hours while providing targeted tutoring sessions and utilizing some technology-

assisted learning tools. Through the implementation phase, educators gained valuable insights into the feasibility and effectiveness of the chosen interventions.

The study phase was where the real learning occurred. Educators systematically gathered data to assess the impact of the interventions on student learning outcomes. This involved analyzing quantitative metrics such as weekly instructional assessments, formative test scores, and student attendance rates. By examining the results, our educators were able to identify what was working well and areas that required adjustment.

Based on the findings from this study, educators have decided to continue to use the established district-wide instructional structure and provide additional time and more targeted approaches for learning to accelerate the interventions provided. There are hopes that the decision to continue would reach more students and that the processes would improve with time and continuous implementation.

Implementation Journey

Our overarching goal was to determine whether additional instructional time could effectively narrow learning gaps and improve academic outcomes between students in poverty and students who are not in poverty. I started by identifying the specific learning gaps prevalent among students of poverty, considering factors such as academic performance, socio-economic background, and access to resources.

During the study phase, we collected data on various metrics, including standardized state assessment results. By analyzing this data, we wanted to be able to assess the impact of the additional instructional time on closing the learning gaps and improving overall academic performance. We took proactive measures and refined our curriculum to better align it with student needs, and we streamlined the instructional software that could be used.

With the interventions planned, we proceeded to implement this afterschool program in our K-8 schools. Planning processes included collaborating with teachers to develop specific and tailored lesson plans, providing training on effective instructional strategies, and mobilizing support staff to facilitate additional learning opportunities with small group pullouts.

By iteratively cycling through the Plan-Do-Study-Act framework, we continuously evaluated and refined our approaches to addressing identified learning gaps among students of poverty. Through this process of continuous improvement, we paid close attention to ensure that we were diligent in providing materials and training teachers with a specific skill set and knowledge base that ensures equitable learning environments where all students had the opportunity to thrive and succeed.

Research Findings

A comprehensive review of reading and mathematics academic performance was conducted for all students in the district, (along with those who enrolled to attend the after-school program) by using the 2023 Spring SC Ready results compared to students in the state. The demographic data is as follows:

Table 8

Demographic Information of Program Participants vs Non-Participants

	Participants	Non-Participants
Number of Students	433	3,709
Poverty	390 (90.1%)	3,033 (81.8%)
Not in Poverty	43 (9.9%)	552 (18.2%)
Disabled	79 (18.2%)	642 (17.3%)

Note. There are 12 elementary and 3 middle schools with students in grades 4 – 8 only. Students who are included in the disabled data have been screened and determined to have some type of learning disability.

When further disaggregating the reading academic performance data, a stark contrast emerged: only 27.8% of students participating in the program met grade-level reading expectations compared to 42.8% of students in the district, and 53.7% in the state. A closer look illustrates, 25.4% of students participating in the program who are in poverty met grade-level reading expectations compared to 36.6 % of students in the district who are in poverty, and 42.2% of students in poverty in the state.

Table 9

Program Baseline Reading Data

Program Participants				District			State		
Grade	Overall	Poverty	Not in Poverty	Overall	Poverty	Not in Poverty	Overall	Poverty	Not in Poverty
3	26.3%	26.0%	28.6%	42.8%	36.8%	71.2%	53.4%	42.3%	72.4%
4	47.4%	44.3%	75.0%	51.6%	46.0%	78.0%	57.1%	46.2%	75.8%
5	26.1%	23.2%	50.0%	42.6%	35.5%	74.2%	55.2%	43.6%	74.4%
6	26.0%	26.2%	25.0%	39.6%	34.4%	63.6%	53.4%	41.3%	73.4%
7	20.9%	16.7%	62.5%	37.1%	29.9%	72.5%	50.0%	37.9%	69.6%
8	21.7%	18.3%	50.0%	45.0%	38.8%	67.5%	53.1%	41.6%	71.0%
All	27.8%	25.4%	49.1%	42.8%	36.6%	70.6%	53.7%	42.2%	72.8%

Note. The 2023 SC Ready Testing reading results will be used as the baseline data for this study. This data compares the Program Participants with the district and state results. This data set is for grades 3 – 8 during the last school year, but they have been promoted to the next grade level.

In mathematics, the overall performance was even more concerning, with only 20.9% of students participating in the program met grade-level mathematics expectations compared to 32.4% of students in the district, and 40.8% in the state. Students participating in the program who are in poverty met grade-level reading expectations by 19.7% compared to 27.1 % of students in the district who are in poverty, and 28.7% of students in poverty in the state.

Table 10

Program Baseline Mathematics Data

Program Participants				District			State		
Grade	Overall	Poverty	Not In Poverty	Overall	Poverty	Not In Poverty	Overall	Poverty	Not In Poverty
3	36.3%	37.0%	28.6%	46.3%	41.5%	69.4%	53.6%	42.3%	72.9%
4	30.8%	28.6%	50.0%	38.7%	33.6%	62.7%	47.0%	35.0%	67.4%
5	14.4%	13.1%	25.0%	32.1%	24.9%	63.7%	44.7%	32.4%	65.1%
6	19.2%	20.0%	12.5%	27.3%	22.0%	51.2%	36.6%	23.9%	57.5%
7	16.3%	11.5%	62.5%	22.5%	16.3%	52.5%	31.0%	18.5%	51.2%
8	13.0%	12.2%	20.0%	28.1%	24.2%	42.7%	31.6%	19.8%	50.2%
All	20.9%	19.7%	32.1%	32.4%	27.1%	55.9%	40.8%	28.7%	60.7%

Note. The 2023 SC Ready Testing mathematics results will be used as the baseline data for this study. This data compares the Program Participants with the district and state results. This data set is for grades 3 – 8 during the last school year, but they have been promoted to the next grade level.

The analysis of this baseline data provides several critical insights into the implementation of educational strategies and their outcomes. The significant achievement gap between students in poverty and those not in poverty highlights the need for targeted interventions. It becomes notably obvious that these students may require additional resources and support to overcome the challenges they face to improve their academic issues.

The consistent underperformance of students in poverty over time may suggest that existing strategies are not effectively addressing their specific needs. Coming to this understanding calls for a reassessment of current educational practices and the development of new, innovative approaches tailored to these students' unique circumstances. The data underscores the importance of differentiated instruction that caters to the varying needs of students. Educators should consider implementing instructional strategies that are specifically designed to help students in poverty, who may benefit from different teaching methods than their more affluent peers.

To better understand the long-term impact of interventions, establishing a system for longitudinal tracking of student performance is essential. This would enable educators to monitor progress over time, assess the effectiveness of implemented strategies, and make the necessary adjustments to improve outcomes.

Challenges, Successes, and Unexpected Encounters

As I navigated my way through this research study to investigate the impact of additional instructional time on addressing learning gaps among students of poverty, I encountered a number of challenges, celebrated successes, and unexpected turns along the way.

One of the primary challenges faced was logistical in nature. Coordinating extended instructional time sessions outside regular school hours required meticulous planning and coordination with school administrators, teachers, students, and parents. Overcoming scheduling conflicts, transportation issues, and making sure that all who worked in this program were qualified teachers (not substitutes or teacher assistants) posed significant hurdles.

Encouraging student engagement and participation in the additional instructional time sessions proved to be a formidable challenge as well. Many students faced competing demands such as family responsibilities or extracurricular activities, making it difficult to commit to additional learning opportunities outside regular school hours.

Despite the challenges, I observed promising improvements in academic performance among participating students. Pre and post-assessment scores revealed significant gains in subject proficiency, in both math and reading comprehension, indicating the efficacy of additional instructional time in addressing learning gaps.

Through targeted interventions such as interactive learning activities, small group discussions, and personalized instruction, I witnessed a notable increase in student engagement

and enthusiasm for learning. Students expressed a newfound sense of confidence and motivation, attributing their academic progress to the additional support received.

The research study fostered collaboration among stakeholders, including educators, parents, district administrators, and school board members. By working together towards a common goal, we were able to leverage collective expertise, common resources, and unified support to overcome all challenges which is used to drive positive change in student outcomes.

The unexpected shift to remote learning due to external factors such as a global pandemic highlighted the digital divide among students of poverty. While we initially focused on in-person instructional support, the sudden transition necessitated innovative approaches to deliver online learning resources and bridge the digital gap to ensure equitable access to education.

Despite facing unforeseen obstacles, our research study underscored the resilience and adaptability of students, educators, and the broader community. By embracing change, adopting flexible strategies, and embracing technology-enabled learning solutions, we were able to pivot seamlessly and continue our efforts to support student learning.

Initially, the afterschool program was designed to support students in grades 3 through 8. During the review, it was identified that 88 students who needed remediation had already progressed to the 9th grade. These students were therefore ineligible for the program, as it specifically targeted those within the specified grade range. This criterion was crucial in narrowing down the pool of eligible participants.

The primary goal of the afterschool program was to provide additional learning time to students who had not mastered their grade-level skills in reading and mathematics. The review process involved breaking down the data to identify these students based on their performance on

the SC Ready standardized state assessment. This precise identification ensured that the program targeted those who would benefit the most from the additional instruction time.

Based on the identified needs, 433 students in grades 3 through 8 were invited to participate in the program. These students were selected because they had demonstrated a need for remediation, as indicated by their assessment (MAP or SC Ready) results. The invitation process was a targeted approach to reach those students who were struggling the most.

Out of the 433 students invited, 334 accepted the invitation and consistently attended the program as expected. The final participation rate was influenced by various factors, including the willingness of students and parents to commit to the additional after-school hours. The enrollment decision also reflected the perceived value and necessity of the program by the families of the invited students.

As the research study drew to a close, the question of long-term sustainability was posed. While we celebrated the successes achieved, ensuring the continuity of effective interventions beyond the scope of the study posed a more pressing challenge. Building capacity, securing ongoing funding, and embedding best practices within existing educational frameworks emerged as critical considerations for sustained impact.

Ultimately, the district decided to extend the opportunity to participate in the after-school program to all students, regardless of whether they had been initially identified for remediation. This inclusive approach allowed any student whose parents wanted them to benefit from the program to enroll. This decision was influenced by the understanding that additional instructional time could be beneficial for a broader range of students, not just those who had been identified as needing remediation.

This research study can be characterized by a blend of challenges, successes, and unexpected turns. Through perseverance, collaboration, and a commitment to continuous improvement, we were able to advance our collective understanding of effective strategies for addressing learning gaps among students of poverty and laying the foundation for lasting educational equity.

The Research Data Details

To ensure that we effectively monitored student progress and predicted future achievement, we decided to use the Northwest Evaluation Association (NWEA) Measures of Academic Progress (MAP) assessment. NWEA is a non-profit organization that creates academic assessments for students in grades pre-K through 12. The organization is based in Portland, Oregon and has a presence in 50 states, 49 foreign countries, and 3,400 districts. NWEA's goal is to help school districts improve learning for all students. The decision to use MAP testing was driven by our district's commitment to provide a rigorous and data-driven approach to understanding individual student growth and academic performance. The NWEA MAP assessment is a powerful tool that allows us to measure student growth over time. It provides detailed insights into how well our students are learning and progressing in key academic areas such as reading and mathematics. By administering the MAP assessment periodically throughout the school year, we can track each student's academic development and identify areas where additional support may be needed. The NWEA MAP test is adaptive, meaning it adjusts the difficulty of questions based on the student's previous answers. This helps in pinpointing the student's current level of understanding and skill more accurately than traditionally fixed-form tests.

When reviewing a student's progress, we use the RIT score which is a stable, equal-interval scale that measures a student's academic knowledge, skills, and abilities. The scale was named after Georg Rasch, a Danish mathematician who developed the underlying model of item response theory that the NWEA uses. The RIT scale was designed so that the difference between scores is consistent across the scale. This means that the difference between 150 and 160 is the same as the difference between 200 and 210 in terms of student learning. The RIT score allows educators to measure a student's growth and proficiency independent of their grade level. This is particularly useful for identifying students who are ahead or behind their peers. The RIT score can be used to track a student's progress over time, providing a clear picture of academic growth year over year. Its ability to track student growth over time, support personalized learning, and inform instructional decisions makes it a very valuable tool. By using the RIT score, schools can ensure they are meeting the individual needs of students and fostering their academic growth effectively.

Individual Student Progress (RIT Score Results)

Program Participants

The data from the NWEA MAP Reading assessment administered shows the progress of students in poverty and those not in poverty across different grade levels from Spring 2023 to Spring 2024. The scores are reported as RIT (Rasch Unit) scores, which indicate a student's achievement level. In the analysis of the MAP Reading results from Spring 2023 to Spring 2024, we observe notable differences in progress across various grade levels for students in poverty and those not in poverty.

The provided data illustrates individual student growth in mathematics from Spring 2023 to Spring 2024, based on RIT scores from the NWEA MAP Assessment. The data is categorized

by grade level and socioeconomic status, specifically distinguishing between students "in poverty" and those "not in poverty." Students in poverty demonstrated a significant improvement, with their RIT scores increasing by 12.1 points, from 179.3 to 191.4. In contrast, students not in poverty showed an increase of 8.5 points, from 190.9 to 199.4. This indicates that students in poverty made substantial gains, outpacing their peers not in poverty.

The progress in 4th grade also highlights the remarkable improvement among students in poverty, who improved by 8.8 points, from 190.3 to 199.1. Students not in poverty saw a smaller increase of 4.9 points, from 199.1 to 204.0. Here, the gains of students in poverty were nearly double that of their not-in-poverty counterparts.

In 5th grade, students in poverty improved their scores by 6.9 points, rising from 200.9 to 207.8. Meanwhile, students not in poverty experienced an increase of 8.8 points, from 204.0 to 212.8. Although both groups made significant gains, the improvement was slightly higher for students not in poverty.

For 6th-grade students, those in poverty showed an improvement of 4.9 points, increasing from 202.4 to 207.3. Students not in poverty had a smaller increase of 1.4 points, from 213.5 to 214.9. This indicates that students in poverty made more notable gains compared to their peers not in poverty.

In 7th grade, students in poverty improved by 5.6 points, moving from 207.5 to 213.1. Their not-in-poverty peers showed comparable progress, with an increase of 6.8 points, from 206.1 to 212.9. Both groups demonstrated similar advancements, with a slight edge to students not in poverty.

The 8th-grade results revealed that students in poverty improved by 6.7 points, rising from 204.3 to 211.0. In contrast, students not in poverty showed a minimal increase of only 0.2

points, from 222.8 to 223.0. This stark difference highlights significant progress for students in poverty, while their not-in-poverty peers exhibited minimal growth.

Significant progress was seen in students in poverty, while the not-in-poverty group showed minimal improvement. The average RIT score increased from 197.5 in Spring 2023 to 205.0 in Spring 2024, a gain of 7.5 points. The average RIT score increased from 206.1 in Spring 2023 to 211.2 in Spring 2024, a gain of 5.1 points. Students in poverty showed a greater overall improvement (7.5 points) compared to students not in poverty (5.1 points).

Table 11

Reading Progress for Program Participants

Grade	Poverty			Not in Poverty		
	2023	2024	Difference	2023	2024	Difference
3	179.3	191.4	12.1	190.9	199.4	8.5
4	190.3	199.1	8.8	199.1	204.0	4.9
5	200.9	207.8	6.9	204.0	212.8	8.8
6	202.4	207.3	4.9	213.5	214.9	1.4
7	207.5	213.1	5.6	206.1	212.9	6.8
8	204.3	211.0	6.7	222.8	223.0	0.2
All	197.5	205.0	7.5	206.1	211.2	5.1

Note. The data demonstrates individual student growth in the subject of reading from the Spring of 2023 to Spring 2024 of students participating in the after-school program. The data is an observation of students' academic performance of themselves in one time period compared to their own results in the next time period. This data is gathered from the administration of the NWEA's MAP Assessment using the RIT Score.

The MAP Mathematics results for students who participated in the afterschool program reveal significant progress across various grade levels, with noticeable differences between students in poverty and those not in poverty. The average RIT score increased from 201.9 in Spring 2023 to 208.9 in Spring 2024, showing a gain of 7.0 points. The average RIT score increased from 207.8 in Spring 2023 to 215.1 in Spring 2024, showing a gain of 7.3 points. Both

groups exhibited comparable overall improvements, with students not in poverty making slightly higher gains on average.

Students in poverty in the 3rd grade improved their RIT scores by 11.1 points, increasing from 185.7 to 196.8. Their peers not in poverty demonstrated an even larger improvement of 12.9 points, rising from 189.7 to 202.6. This indicates significant progress for both groups, with not-in-poverty students showing a slightly greater improvement.

In the 4th grade, students in poverty saw their RIT scores increase by 10.2 points, from 193.9 to 204.1. Students not in poverty improved by 9.1 points, from 199.4 to 208.5. Although both groups made substantial gains, students in poverty outpaced their not-in-poverty peers in terms of the magnitude of improvement.

Fifth graders in poverty improved by 9.3 points, with their scores increasing from 204.7 to 214.0. Their not-in-poverty peers experienced a larger gain of 11.4 points, rising from 206.5 to 217.9. This indicates that while both groups made significant progress, the improvement was more pronounced for students not in poverty.

For 6th grade students, those in poverty showed a modest improvement of 1.5 points, with their scores increasing from 206.3 to 207.8. Students not in poverty saw a similar but slightly lower gain of 1.1 points, moving from 215.3 to 216.4. Both groups demonstrated minimal improvement compared to other grades.

In the 7th grade, students in poverty improved by 5.4 points, with their scores increasing from 210.3 to 215.7. Their not-in-poverty peers showed a comparable gain of 4.6 points, rising from 210.0 to 214.6. This indicates that both groups made similar progress, with a slight edge for students in poverty.

Eighth-grade students in poverty improved their RIT scores by 4.7 points, increasing from 210.3 to 215.0. Students not in poverty saw a gain of 4.3 points, with their scores rising from 226.0 to 230.3. Both groups exhibited comparable improvements, with students in poverty showing a slightly greater gain.

Table 12

Mathematics Progress for Program Participants

Grade	Poverty			Not in Poverty		
	2023	2024	Difference	2023	2024	Difference
3rd Grade	185.7	196.8	11.1	189.7	202.6	12.9
4th Grade	193.9	204.1	10.2	199.4	208.5	9.1
5th Grade	204.7	214.0	9.3	206.5	217.9	11.4
6th Grade	206.3	207.8	1.5	215.3	216.4	1.1
7th Grade	210.3	215.7	5.4	210.0	214.6	4.6
8th Grade	210.3	215.0	4.7	226.0	230.3	4.3
All Grades	201.9	208.9	7.0	207.8	215.1	7.3

Note. The data demonstrates individual student growth in the subject of mathematics from the Spring of 2023 to Spring 2024 of students participating in the after-school program. The data is an observation of students' academic performance of themselves in one time period compared to their own results in the next time period. This data is gathered from the administration of the NWEA's MAP Assessment using the RIT Score.

Program Non-Participants

The MAP Reading assessment results for students who did not participate in the afterschool program show notable differences in progress between students in poverty and those not in poverty across various grade levels. The average RIT score increased from 200.4 in Spring 2023 to 206.6 in Spring 2024, showing a gain of 6.2 points. The average RIT score increased from 212.3 in Spring 2023 to 217.4 in Spring 2024, showing a gain of 5.1 points. Students in poverty who did not participate in the afterschool program made slightly more progress on average than their not-in-poverty peers.

In the 3rd grade, students who did not participate in the afterschool program demonstrated similar progress in their reading scores to those students who participated in the program. Students in poverty improved by 10.1 points, with their RIT scores rising from 182.8 in Spring 2023 to 192.9 in Spring 2024. Their peers not in poverty also showed significant gains, with an increase of 9.2 points, from 195.7 to 204.9. Interestingly, students in poverty outpaced their not-in-poverty counterparts slightly, highlighting their substantial improvement.

The 4th grade non-participants also showed progress, though the pattern differed slightly. Students in poverty improved their RIT scores by 7.8 points, moving from 193.2 to 201.0. Those not in poverty saw an increase of 8.2 points, from 202.7 to 210.9. In this grade, students not in poverty made slightly higher gains than their peers in poverty, though both groups made commendable progress.

In the 5th grade, students in poverty who did not participate in the afterschool program improved by 6.4 points, with their scores increasing from 201.6 to 208.0. In comparison, students not in poverty improved by 3.9 points, from 213.2 to 217.1. This data indicates that students in poverty made more notable gains compared to their not-in-poverty peers, suggesting that they may have benefited from other support mechanisms or resources.

For the 6th grade, the trend continued with students in poverty showing greater improvement. Their RIT scores increased by 5.1 points, from 204.9 to 210.0. Students not in poverty, on the other hand, improved by 3.5 points, moving from 218.3 to 221.8. This further underscores the significant progress made by students in poverty relative to their peers.

In the 7th grade, students in poverty improved by 4.2 points, from 208.9 to 213.1. Those not in poverty showed a similar gain, improving by 3.6 points from 218.5 to 222.1. While both

groups demonstrated comparable progress, the students in poverty had a slight edge in their improvement.

The 8th grade results revealed that students in poverty improved by 3.6 points, with their scores rising from 211.0 to 214.6. Their not-in-poverty peers saw an increase of 2.5 points, from 225.0 to 227.5. Although the overall improvement was smaller for both groups compared to other grades, students in poverty still made more progress relative to their peers not in poverty.

Table 13

Reading Progress for Program Non-Participants

Grade	Poverty			Not in Poverty		
	2023	2024	Difference	2023	2024	Difference
3	182.8	192.9	10.1	195.7	204.9	9.2
4	193.2	201.0	7.8	202.7	210.9	8.2
5	201.6	208.0	6.4	213.2	217.1	3.9
6	204.9	210.0	5.1	218.3	221.8	3.5
7	208.9	213.1	4.2	218.5	222.1	3.6
8	211.0	214.6	3.6	225.0	227.5	2.5
All	200.4	206.6	6.2	212.3	217.4	5.1

Note. The data demonstrates individual student growth in the subject of reading from the Spring of 2023 to Spring 2024 of students not participating in the afterschool program. The data is an observation of students' academic performance of themselves in one time period compared to their own results in the next time period. This data is gathered from the administration of the NWEA's MAP Assessment using the RIT Score.

Students in poverty generally showed slightly higher growth compared to their peers not in poverty, with an overall average growth of 6.3 RIT points versus 5.9 RIT points, respectively. This trend suggests that even without participation in the specific mathematics progress program, students in poverty are making comparable or slightly better progress in their mathematics skills.

Both groups showed significant growth, with students in poverty increasing by 10.6 points and those not in poverty by 10.2 points. This high growth in early grades is encouraging. Both groups showed minimal growth, with only a 1.8-point increase for students in poverty and a

1.2-point increase for those not in poverty. This indicates a potential area of concern that might require additional support or intervention. Students not in poverty showed better growth (5.0 points) compared to those in poverty (3.4 points), which is an outlier compared to the overall trend. This may suggest that additional focus is needed to support older students in poverty.

The data indicates that non-participants in the mathematics progress program are making steady progress in mathematics, with students in poverty generally showing slightly higher growth than their peers not in poverty. However, the overall growth rates are lower than those observed for program participants, highlighting the potential effectiveness of the mathematics progress program.

Table 14

Mathematics Progress for Program Non-Participants

Grade Levels	2023	2024	Difference	2023	2024	Difference
3rd Grade	186.1	196.7	10.6	196.3	207.2	10.2
4th Grade	197.0	204.9	7.9	206.6	213.8	7.2
5th Grade	204.5	213.4	8.9	216.5	223.6	7.1
6th Grade	210.6	212.4	1.8	224.7	225.9	1.2
7th Grade	212.7	217.5	4.8	225.8	229.4	3.6
8th Grade	216.3	219.7	3.4	232.9	237.9	5.0
All Grades	204.5	210.8	6.3	217.1	223.0	5.9

Note. The data demonstrates individual student growth in the subject of mathematics from the Spring of 2023 to Spring 2024 of students not participating in the afterschool program. The data is an observation of students' academic performance of themselves in one time period compared to their own results in the next time period. This data is gathered from the administration of the NWEA's MAP Assessment using the RIT Score.

Students in both poverty and not in poverty made notable gains across all grades, with particularly significant improvements in the lower grades (3rd and 4th). The overall increase in RIT scores for both groups indicates that the afterschool program was effective in enhancing mathematical proficiency. While both groups made substantial progress, students not in poverty

generally exhibited slightly higher overall improvements. However, in several grades (4th, 6th, and 7th), students in poverty showed greater gains than their peers not in poverty, highlighting the program's positive impact on this demographic. The 6th-grade results indicate minimal improvement for both groups, suggesting a potential area for further investigation and targeted intervention to enhance mathematical learning outcomes at this grade level.

The MAP Mathematics results for students who did not participate in the afterschool program show varying levels of progress across different grades. The average RIT score increased from 204.5 in Spring 2023 to 210.8 in Spring 2024, showing a gain of 6.3 points. The average RIT score increased from 217.1 in Spring 2023 to 223.0 in Spring 2024, showing a gain of 5.9 points. Both groups exhibited comparable overall improvements, with students in poverty making slightly higher gains on average.

Students in poverty in the 3rd grade improved their RIT scores by 10.6 points, increasing from 186.1 in Spring 2023 to 196.7 in Spring 2024. Their peers not in poverty demonstrated a similar improvement of 10.2 points, rising from 196.3 to 207.2. This indicates significant progress for both groups, with students in poverty showing slightly more improvement.

In the 4th grade, students in poverty saw their RIT scores increase by 7.9 points, from 197.0 to 204.9. Students not in poverty improved by 7.2 points, from 206.6 to 213.8. Both groups made substantial gains, with students in poverty slightly outpacing their not-in-poverty peers.

Fifth graders in poverty improved by 8.9 points, with their scores increasing from 204.5 to 213.4. Their not-in-poverty peers experienced a gain of 7.1 points, rising from 216.5 to 223.6. This indicates that students in poverty made more notable gains compared to their not-in-poverty peers.

For 6th grade students, those in poverty showed a modest improvement of 1.8 points, with their scores increasing from 210.6 to 212.4. Students not in poverty saw a slightly lower gain of 1.2 points, moving from 224.7 to 225.9. Both groups demonstrated minimal improvement compared to other grades, but students in poverty showed slightly higher progress.

In the 7th grade, students in poverty improved by 4.8 points, with their scores increasing from 212.7 to 217.5. Their not-in-poverty peers showed a gain of 3.6 points, rising from 225.8 to 229.4. This indicates that students in poverty made more substantial progress compared to their not-in-poverty peers.

Eighth grade students in poverty improved their RIT scores by 3.4 points, increasing from 216.3 to 219.7. Students not in poverty saw a gain of 5.0 points, with their scores rising from 232.9 to 237.9. In this grade, students not in poverty made greater progress compared to their peers in poverty.

Students in both poverty and not in poverty made notable gains across all grades, with particularly significant improvements in the lower grades (3rd and 5th). The overall increase in RIT scores for both groups indicates that, despite not participating in the afterschool program, these students benefited from regular classroom instruction and resources. While both groups made substantial progress, students in poverty generally exhibited slightly higher gains across most grades compared to their peers not in poverty. This suggests that the regular instructional support and resources provided during school hours were effective for these students. The 6th grade results indicate minimal improvement for both groups, suggesting a potential area for further investigation and targeted intervention to enhance mathematical learning outcomes at this grade level.

Across all grade levels, students in poverty who did not participate in the afterschool program generally made more significant gains in their reading scores compared to their peers not in poverty. This suggests that despite the lack of additional afterschool instruction, other factors such as regular classroom support equitable resources, and appropriate interventions may have contributed to their progress. The consistent improvement among students in poverty highlights the effectiveness of these support mechanisms and underscores the need for continued and targeted interventions to sustain and enhance their academic growth.

In higher grades (7th and 8th), the improvements were generally smaller for both groups. This may indicate a need for additional support or different strategies to maintain and enhance reading growth as students advance in grade levels. When comparing these results to those of program participants, it's evident that the afterschool program had a positive impact, especially for students in poverty. Program participants generally showed larger gains, highlighting the

Table 15

Reading Progress Comparison (Average RIT Points Gained)

Grade Levels	In Poverty Participants	Not In Poverty Participants	In Poverty Non-Participants	Not In Poverty Non-Participants
3rd Grade	12.1	8.5	10.1	9.2
4th Grade	8.8	4.9	7.8	8.2
5th Grade	6.9	8.8	6.4	3.9
6th Grade	4.9	1.4	5.1	3.5
7th Grade	5.6	6.8	4.2	3.6
8th Grade	6.7	0.2	3.6	2.5
All Grades	7.5	5.1	6.2	5.2

Figure 13:

Reading Progress Comparisons (4 Subgroups)

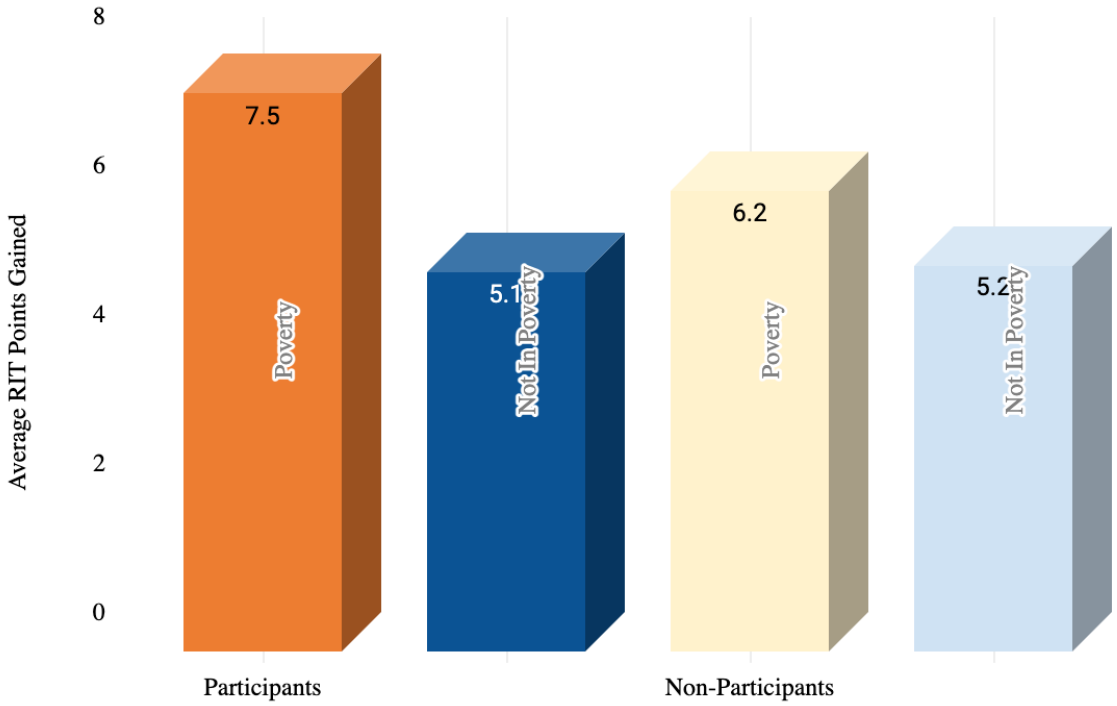


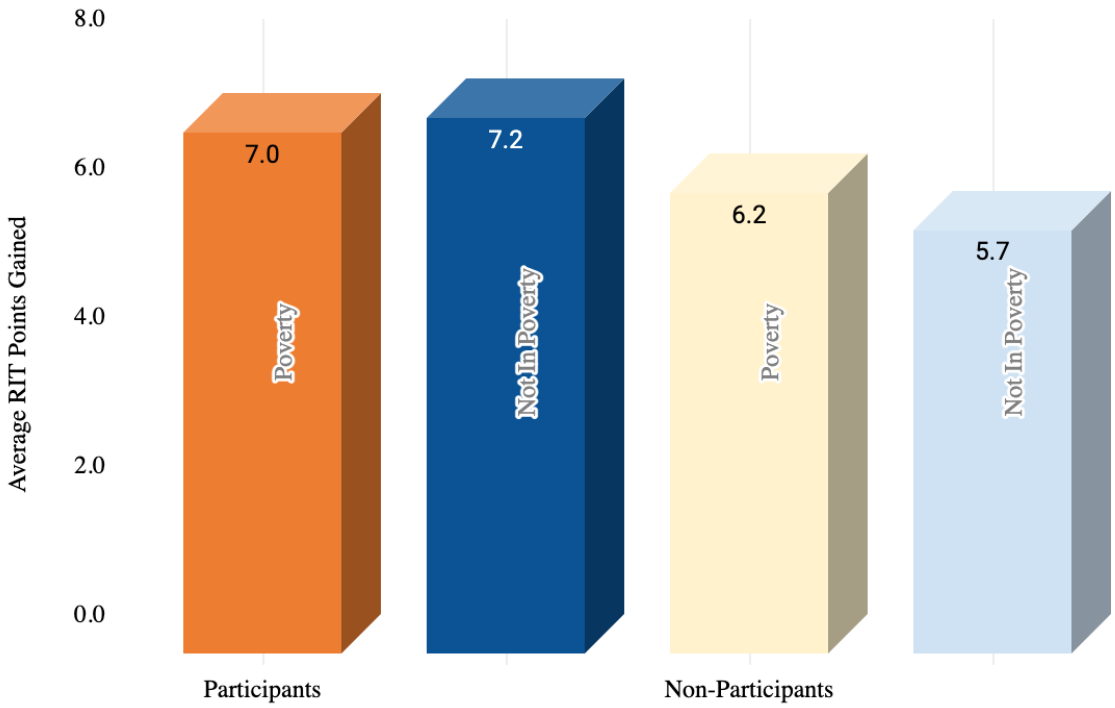
Table 16

Mathematics Progress Comparison (Average RIT Points Gained)

Grade Levels	In Poverty Participants	Not In Poverty Participants	In Poverty Non-Participants	Not In Poverty Non-Participants
3rd Grade	11.1	12.9	10.6	10.2
4th Grade	10.2	9.1	7.9	7.2
5th Grade	9.3	11.4	8.9	7.1
6th Grade	1.5	1.1	1.8	1.2
7th Grade	5.4	4.6	4.8	3.6
8th Grade	4.7	4.3	3.4	5.0
All Grades	7.0	7.2	6.2	5.7

Figure 14:

Mathematics Progress Comparisons (4 Subgroups)



Rate of Growth Comparison (Conditional Growth Percentile Results)

One of the significant advantages of using the NWEA MAP assessment is its ability to compare our students' growth to that of their peers across the United States. This is done through the Conditional Growth Percentile (CGP), which shows how the average growth of students in a specific grade within our school compares to the growth of students in the same grade at other US schools. The CGP is an essential metric that provides context to our students' growth. For example, if our 5th-grade students have a CGP of 70, it means that their average growth is better than 70% of the 5th-grade students in other US schools. This percentile ranking helps us

understand our school's performance in a broader national context and highlights the effectiveness of our instructional strategies.

50 CGP ranking means that a student is growing a the normal expected rate and will achieve one year's growth. Because 50 CGP is the normal rate of growth, we set our growth goal to at least 55 CGP. Otherwise, students will remain at the same place of achievement that they were at the same time last year in the prior grade. We wanted to extend the learning so that it would be accelerated, and we should see students move closer to higher achievement results on grade level.

By leveraging the data from the NWEA MAP assessments and understanding our CGP, we can make informed decisions about our instructional practices and interventions. If we notice that certain grades or groups of students are not growing as expected, we can implement targeted interventions to address these gaps. Conversely, if our students are showing exceptional growth, we can analyze and replicate the successful strategies across other grades or subjects.

The decision to use the NWEA MAP assessment for progress monitoring is a strategic move to enhance our educational approach. It enables us to measure student growth accurately, predict future academic achievement, and compare our progress with schools nationwide. Through the insights gained from the CGP, we can continuously improve our instructional methods, ensuring that all students receive the support they need to succeed academically. This commitment to data-driven instruction ultimately helps us provide a high-quality education that prepares our students for future success.

By comparing these growth rates, we can infer the impact of socioeconomic status and participation in the afterschool program on students' academic progress. The CGP provides a

clear and quantifiable measure to evaluate these differences and make informed decisions for educational improvements.

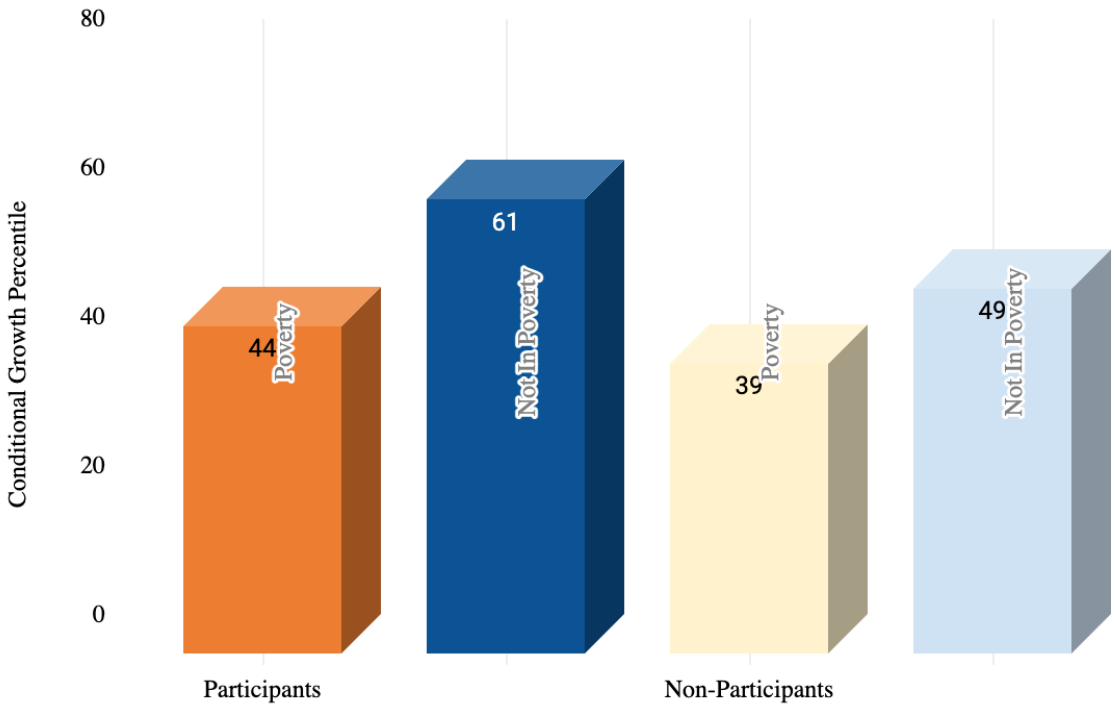
To analyze the reading rate of growth using the MAP (Measures of Academic Progress) conditional growth percentile data provided for these students, we need to compare the percentiles between nonparticipants and participants in the afterschool program, broken down by their socioeconomic status (Not in poverty vs. In poverty). For nonparticipants, the difference in growth percentiles between those not in poverty and those in poverty is 17 percentile points, indicating a significant impact of poverty on reading growth. For participants, the difference is 10 percentile points, suggesting that participation in the afterschool program may reduce the gap caused by poverty but does not eliminate it entirely.

Among students not in poverty, participants in the afterschool program have a lower growth percentile (49) compared to nonparticipants (61), indicating that the afterschool program may not be benefiting this group as expected, or there may be other factors at play. Students in poverty, participants have a slightly lower growth percentile (39) compared to nonparticipants (44), suggesting a smaller impact of the afterschool program on this group as well.

The data indicates that while the afterschool program has some influence, it is not sufficiently addressing the gap in reading growth between students in poverty and those not in poverty. There may be a need to re-evaluate the afterschool program's effectiveness, especially considering its varied impact on different socioeconomic groups. Additional support mechanisms may be required to ensure that students in poverty can achieve growth rates comparable to their peers not in poverty.

Figure 15:

Reading Rate of Growth Comparison (4 Subgroups)



For nonparticipants, the difference in growth percentiles between those not in poverty and those in poverty is 5 percentile points, indicating a moderate impact of poverty on mathematics growth. For participants, the difference is 2 percentile points, suggesting that participation in the afterschool program may reduce the gap caused by poverty slightly.

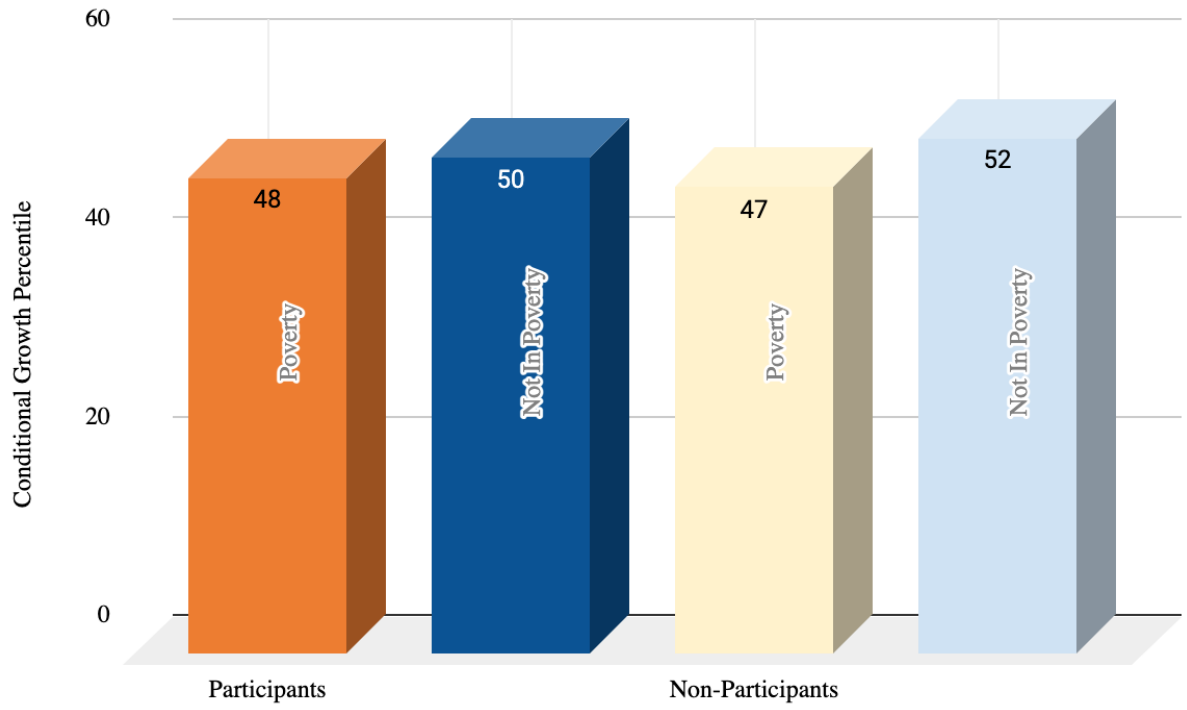
Among students not in poverty, participants in the afterschool program have a slightly lower growth percentile (50) compared to nonparticipants (52), indicating a minimal difference in growth. Students in poverty, participants have a slightly higher growth percentile (48) compared to nonparticipants (47), indicating a slight positive impact of the afterschool program.

The data indicates that the afterschool program has a marginal effect on reducing the impact of poverty on mathematics growth. The afterschool program appears to slightly benefit students in poverty in mathematics, as indicated by a 1 percentile point increase for participants

compared to nonparticipants. For students not in poverty, the difference between participants and nonparticipants is minimal, suggesting that the program does not significantly affect their mathematics growth.

Figure 16:

Mathematics Rate of Growth Comparison (4 Subgroups)



Trends, Patterns, and Themes

After reviewing the collected data, several recurring patterns and emerging themes have been identified. These patterns are critical in understanding the effectiveness of interventions and the overall impact on student learning outcomes. Across both reading and mathematics, students who participated in the afterschool program consistently showed higher gains with individual RIT scores compared to non-participants. This pattern is evident in both poverty and not-in-poverty groups. For example, in reading, 3rd-grade participants in poverty improved by 12.1

points compared to 10.1 points for non-participants. Similarly, in mathematics, 3rd-grade participants in poverty improved by 11.1 points compared to 10.6 points for non-participants.

The data indicates that younger students (3rd and 4th grades) tend to make more significant gains in both reading and mathematics compared to older students. For instance, 3rd-grade reading participants in poverty improved by 12.1 points, while 8th-grade participants improved by 6.7 points. Similarly, in mathematics, 3rd-grade participants in poverty improved by 11.1 points, while 8th-grade participants improved by 4.7 points.

Students in poverty who participated in the afterschool program often outperformed their peers not in poverty, especially in the early grades. For example, in 4th-grade reading, students in poverty improved by 8.8 points compared to 4.9 points for students not in poverty. In 3rd-grade mathematics, students in poverty improved by 11.1 points compared to 12.9 points for students not in poverty, showing relatively close performance.

Across both subjects and all groups, 6th-grade students showed the least improvement, indicating a potential area of concern. For instance, in 6th-grade reading, participants in poverty improved by only 4.9 points compared to 1.4 points for their not-in-poverty peers. In mathematics, 6th-grade participants in poverty improved by 1.5 points, and non-participants improved by 1.8 points.

While participants generally made more significant gains, non-participants still showed consistent progress, particularly in the early grades. For example, 3rd-grade non-participants in poverty improved by 10.6 points in mathematics, indicating that even without additional afterschool support, students are making strides in their learning.

These identified patterns hold significant implications for addressing the problem of practice, which is enhancing student achievement, particularly for those in poverty, through

effective interventions. By comparing these growth rates, we can infer the impact of socioeconomic status and participation in the afterschool program on students' academic progress. The CGP provides a clear and quantifiable measure to evaluate these differences and make informed decisions for educational improvements.

The difference indicates that nonparticipants not in poverty have a higher rate of growth compared to their peers in poverty. Similarly, participants not in poverty show higher growth compared to those in poverty, but both groups show lower growth compared to nonparticipants.

Reflections on the Improvement Theory

The RIT score is criterion-referenced. It measures what the student knows and can do relative to the test's content, not how their performance ranks among other students. The RIT score compares a student to himself. The conditional growth percentile (CGP) is a norm-referenced approach that compares a student's performance to a national sample of students, resulting in a percentile rank. Criterion-referenced tests measure a student’s performance against specific learning standards or criteria.

The RIT score in NWEA MAP testing is specifically designed to measure and track individual student growth over time, independent of other students' performance. This approach ensures that the focus remains on personal academic development, providing a clear picture of each student’s learning journey and helping educators tailor their instruction to meet individual needs. By using the RIT score, educators can support every student in achieving their full potential without the pressure of comparative performance. We see that if educators focus on individual student needs, there will be growth. That growth will transform into grade-level proficiency, unfortunately at different rates, depending on their level of supports in and out of the classroom.

In practice, we implemented targeted interventions designed to address specific learning gaps among students of poverty. These interventions included extending instructional time through after-school programs. By providing additional support in key subject areas such as math and reading comprehension, we aimed to bolster academic performance and narrow the achievement gap.

My approach was grounded in data-driven decision-making, as advocated by the theory of improvement. Throughout the research study, we collected and analyzed quantitative and qualitative data to assess the effectiveness of the interventions. The theory of improvement emphasizes continuous iteration and improvement, and this principle was deeply embedded in our approach. As we progressed through the Plan-Do-Study-Act (PDSA) cycles, we iteratively refined our interventions based on insights gleaned from the data. Whether it was adjusting instructional methodologies, reallocating resources, or scaling up successful interventions, we remained committed to refining our approach to maximize impact.

The theory of improvement underscored the importance of applying an equity and social justice lens to educational interventions, particularly when addressing the needs of marginalized populations such as students of poverty. In practice, we prioritized equitable access to additional instructional time, ensuring that all students had the opportunity to benefit from the interventions regardless of socio-economic background.

In hindsight, the collaboratively developed theory of improvement served as a guiding framework that not only informed our actions but also influenced the outcomes of our research study. By aligning theory with practice, we were able to make meaningful strides in addressing learning gaps among students of poverty. However, we also recognize that the journey towards educational equity is ongoing, and there is still much work to be done. Moving forward, we

remain committed to leveraging the principles of improvement science to drive continuous progress and create more equitable learning environments for all students.

The data suggests that students, especially those in poverty, benefit significantly from afterschool programs. Participants in these programs generally showed higher gains compared to non-participants. This underscores the importance of providing additional learning opportunities and targeted support outside regular school hours. The analysis of the projected proficiency percentages from Spring 2023 to Spring 2024 highlights the positive impact of afterschool programs and the critical need for targeted interventions, particularly in middle grades and for students in poverty. By leveraging these insights, educators and policymakers can make informed decisions to enhance educational outcomes and ensure equitable access to quality education for all students. The on-grade level proficiency data below demonstrates that the afterschool program contributed to the academic successes overall.

There were a number of key drivers that had an impact of the outcome for the study. It was important that equal access to high-quality instructional materials and resources for all students was made available regardless of their socioeconomic status. The goal was to level the playing field by ensuring that all students, particularly those in poverty, had the necessary tools to support their learning. This would help in reducing disparities in academic performance. Equitable instructional resources played a crucial role in bridging the resource gap between students in poverty and their more affluent peers. By having access to the same high-quality materials, students in poverty were better equipped to engage with the curriculum, complete assignments, and perform well in assessments. This contributed to a more balanced learning environment where all students had the opportunity to succeed, thus addressing part of the achievement gap.

The implementation of effective instructional strategies has been proven to be effective in enhancing student learning and engagement. The aim was to improve the quality of instruction across the board, making it more engaging and accessible to all students. This would lead to better comprehension, retention, and application of knowledge. The use of effective instructional strategies ensured that lessons were delivered in a way that maximized student understanding and retention. Strategies such as differentiated instruction, interactive learning, and formative assessment allowed teachers to cater to the diverse needs of their students. This approach was particularly beneficial for students in poverty, who often face additional learning challenges. By making learning more accessible and engaging, these strategies helped to improve overall academic performance and reduce the gap between different student groups.

The main focus of this study was to offer extended learning opportunities beyond regular school hours to provide extra support in reading and mathematics. The afterschool program aimed to give students more time to master difficult concepts and receive individualized attention from qualified teachers, thus improving their academic performance. The additional instructional time provided after school was instrumental in helping students who were struggling to meet grade-level expectations. The program allowed for more in-depth exploration of subjects, personalized tutoring, and practice in a supportive environment. Qualified teachers, who were familiar with the students' regular learning systems, ensured that the afterschool instruction was coherent and aligned with the daytime curriculum. This consistency reinforced learning and helped students make significant progress in reading and mathematics. For students in poverty, this extra time and personalized attention were particularly valuable in overcoming learning gaps.

Research Limitations and Lessons Learned

By ensuring that all students had access to the same quality of instructional resources, the district addressed a fundamental inequity that often hinders students in poverty. This initiative helped provide a more balanced foundation for all students, enabling better engagement and academic performance. Implementing effective teaching methods enhanced the overall quality of education, making it more accessible and engaging for all students. These strategies were crucial in helping students, especially those in poverty, to better understand and retain information, leading to improved academic outcomes. The afterschool program provided critical extra learning time, allowing students to receive additional help in a structured and supportive environment. Qualified teachers familiar with the regular learning systems ensured that this extra instruction was coherent and effective, reinforcing and building upon daytime learning.

The combination of these drivers and change ideas created a more equitable and supportive learning environment. By addressing resource disparities, enhancing instructional quality, and offering additional learning opportunities, the district made significant strides in improving academic outcomes. Students in poverty, who often face greater challenges, benefited particularly from these changes, helping to reduce the achievement gap and promote greater educational equity.

Considerations for Next Steps

Based on the findings and patterns identified in the data, several follow-up actions and research studies can be conducted to further understand and improve student achievement, particularly for students in poverty. Given the positive impact of afterschool programs, consider expanding these programs to include more students, especially those in poverty who showed the

most significant individual gains. Assess the capacity of current afterschool programs and explore ways to increase enrollment without compromising the quality of instruction.

Additionally, we can create specialized interventions and support mechanisms for disabled students and middle school students. It has become obvious that these particular subgroups have a need for a more critically personalized approach to learning because there are some obstacles or barriers that take priority and cause the learning process to be slowed down significantly, particularly those in 6th grade, to address the minimal gains observed. Provide professional development for teachers focusing on the unique needs of middle-grade students to enhance instructional strategies and student engagement.

We also believe that this model could be used to invest in early intervention programs for students in the 3rd and 4th grades, where significant gains were observed, to capitalize on the momentum and ensure long-term academic success. It can also be used to increase parental involvement in early grades to reinforce learning at home and provide a supportive environment for students.

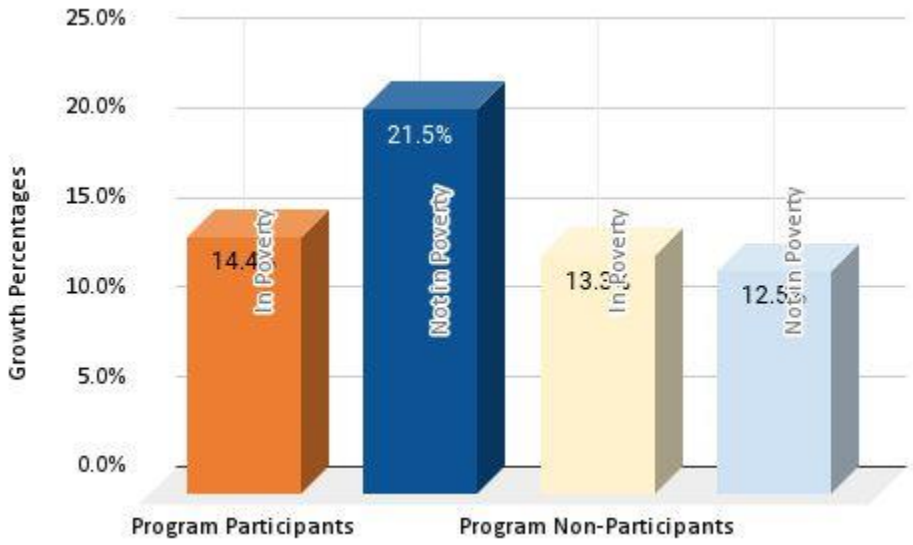
Conclusion

The study's data analysis revealed that many students achieved or exceeded the target growth rate. Specifically, more than half of the participants did not demonstrate conditional growth rates above the 55th percentile, but some students make exceptional progress. When compared to pre-intervention benchmarks, the post-intervention performance indicated substantial gains, suggesting that the implemented strategies were effective in accelerating learning. Only 1 of the 8 groups met and exceeded the 55 conditional growth percentile goal. Meanwhile 2 of the 8 groups met a normal year's growth goal and were only a few points shy of meeting the study's goal. Unfortunately, neither of these groups were students of poverty.

When pulling all of the data together to determine the effectiveness of the percentage of students who actually grew to meeting grade-level proficiency expectations in reading and mathematics, it shows that additional instructional time provided to students using a structured system works. For students in poverty, program participation slightly increases the percentage meeting reading proficiency expectations (14.4% vs. 13.3%). For students not in poverty, program participation significantly increases the percentage meeting reading proficiency expectations (21.5% vs. 12.5%). Among program participants, students not in poverty have a higher percentage meeting proficiency expectations compared to those in poverty (21.5% vs. 14.4%). Among non-participants, students not in poverty also perform better, though the gap is smaller (12.5% vs. 13.3%).

Figure 17:

Growth Towards Reading Proficiency Projections (On Grade-Level)

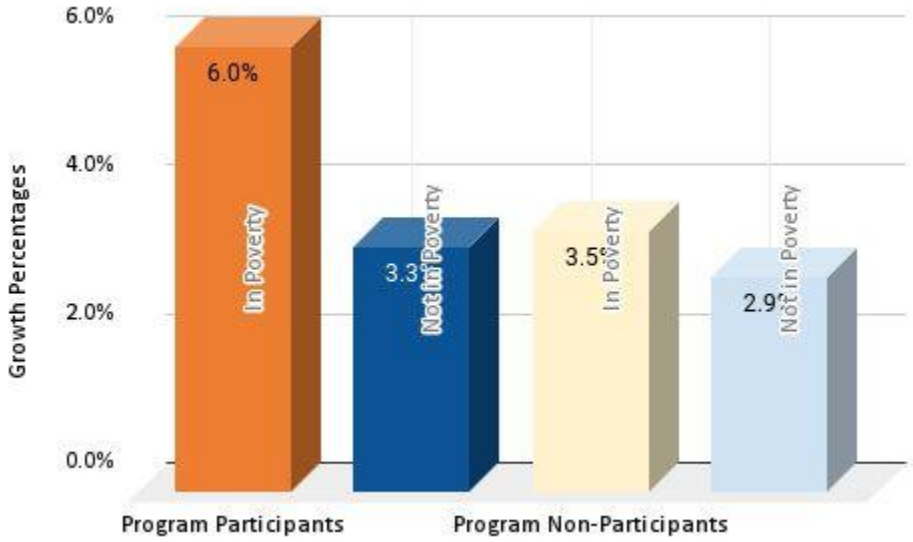


In the subject of mathematics, students in poverty, program participation increases the percentage meeting mathematics proficiency expectations (6.0% vs. 3.5%). For students not in poverty, program participation also increases the percentage of meeting mathematics proficiency

expectations (3.3% vs. 2.9%). Among program participants, students in poverty perform better than those not in poverty (6.0% vs. 3.3%), and among non-participants, students in poverty also perform slightly better than those not in poverty (3.5% vs. 2.9%).

Figure 18:

Growth Towards Mathematics Proficiency Projections (on Grade-Level)



Note. Growth percentage projections (for both reading and mathematics) were made using 2024 Spring administration of MAP Assessment.

The program is beneficial for reading proficiency, especially for students not in poverty, who show a more substantial improvement compared to their peers in poverty. This suggests that while the program helps, it may be more effective for those not dealing with economic hardships. The program also positively impacts mathematics proficiency for all students, but interestingly, students in poverty benefit more than those not in poverty. This is contrary to the trend observed in reading proficiency, indicating that the program's design might be particularly effective in addressing the challenges faced by students in poverty in mathematics.

Poverty negatively affects reading proficiency, with lower percentages of students meeting expectations in both participants and non-participants groups. The program slightly mitigates this effect for students in poverty. Interestingly, students in poverty perform better in mathematics proficiency than their non-poverty counterparts, particularly among program participants. This suggests that the program is particularly beneficial for economically disadvantaged students in mathematics. Overall, the program is effective in both subjects, with notable differences in impact based on poverty status. The stronger effect in mathematics for students in poverty highlights the importance of tailored educational strategies to address specific needs in different subject areas.

The data strongly suggests that afterschool programs are effective in boosting academic performance, especially for students in poverty. This supports the continuation and potential expansion of such programs to reach more students. The more substantial gains observed in early grades highlight the importance of early intervention. Investing resources in 3rd and 4th grades could lead to long-term academic benefits, making these critical years for targeted support. The minimal gains in 6th grade suggest a need for specialized strategies to support students during this transitional period. This could involve tailored instructional approaches, additional resources, and enhanced teacher training to better address the unique challenges of middle school students. The higher gains among students in poverty who participated in the afterschool program indicate that equitable access to additional learning opportunities can significantly narrow the achievement gap. Continued focus on providing support to these students is crucial for improving overall educational equity. The consistent progress of non-participants, particularly in early grades, suggests that regular classroom instruction is effective

but can be further enhanced by additional support mechanisms. This underscores the importance of maintaining high-quality instructional practices and resources within the school day.

The recurring patterns and emerging themes from the data emphasize the critical role of targeted interventions, early support, and equitable access to additional learning opportunities. These insights should inform future strategies to enhance student achievement, particularly for those in poverty, and address the specific needs of different grade levels. By leveraging these findings, educators and administrators can make data-driven decisions to improve educational outcomes for all students.

School systems that recognize the importance of developing structures to meet the individual needs of students are poised for success in achieving significant academic growth. By leveraging tools like the RIT score from NWEA MAP testing, educators can tailor their instruction to address each student's unique strengths and areas for improvement, fostering a personalized learning environment that promotes continuous progress. However, the data shows that schools cannot accomplish this monumental task alone. To truly eliminate learning lag and close achievement gaps, they need the active support and involvement of families and communities. By working together, schools, families, and communities can create a holistic support system that empowers every student to reach their full academic potential.

Chapter Four: Research Reflections

Introduction

The COVID-19 pandemic has profoundly impacted education systems worldwide, with students from low-income backgrounds bearing the brunt of the disruption. Prolonged school closures, inadequate access to remote learning resources, and the myriad challenges of adapting to new educational environments have resulted in significant learning loss for these students (EAB, 2020). The academic setbacks experienced by students living in poverty not only reflect the immediate consequences of the pandemic but also underscore long-standing educational inequities.

As educators grapple with the aftermath of the pandemic, there was an urgent need to develop and implement effective strategies to accelerate daily learning for students who have fallen behind. Students from low-income backgrounds experienced significant learning loss during the COVID-19 pandemic (EAB, 2020). This loss disproportionately affected these students, exacerbating existing educational inequities. Traditional educational approaches may not suffice in addressing the depth and breadth of the learning loss experienced. Innovative structures and targeted interventions are required to support these students in catching up and achieving their full academic potential. The Covid-19 pandemic has brought to the forefront the need to create processes and practice structures that ensure that schools stay prepared to continue instruction and provide support to students so that those who are already behind do not get further behind (Kuhfeld et al., 2020).

This research study aimed to explore and identify effective educational strategies and structures that could accelerate the daily learning of students from low-income backgrounds who

experienced significant learning loss during the COVID-19 pandemic. By examining various pedagogical approaches, support systems, and instructional practices, the study searched to provide a comprehensive framework for educators to implement in their efforts to mitigate the learning deficits and close the achievement gap.

The ultimate goal of this research was to inform and guide educators in creating and refining educational environments that foster rapid academic recovery. By focusing on the needs of students from impoverished backgrounds, this study endeavors to contribute to the broader effort of promoting educational equity and ensuring that all students have the opportunity to succeed despite the challenges posed by the pandemic.

Reflections on the Improvement Science Process

The research journey undertaken in this study has been a transformative experience, shaped profoundly by the principles and practices of improvement science. Reflecting on this journey, several key moments stand out as pivotal in both the progression of the research and the evolution of my thinking. The initial step of pinpointing the problem of practice—significant learning loss among students from low-income backgrounds due to the COVID-19 pandemic—was crucial. This step involved a thorough review of existing literature and discussions with educators, which underscored the urgency and scale of the issue.

The iterative cycle of developing, testing, and refining interventions was a hallmark of the improvement science approach. Small-scale tests of change allowed for rapid feedback and adjustments, making the research process dynamic and responsive. This phase highlighted the importance of adaptability and continuous learning. Systematic data collection and rigorous analysis were integral to understanding the impact of the interventions. Key moments included discovering significant patterns in student performance data and recognizing the contextual

factors that influenced outcomes. These insights guided subsequent iterations and refinements of the strategies being tested. Periodic reflection sessions were essential for assessing progress and recalibrating efforts. These moments of reflection facilitated a deeper understanding of the complexities involved in addressing learning loss and the multifaceted nature of educational recovery.

The nature of improvement science has fundamentally shaped my approach to research and problem-solving in a number of different ways. The iterative cycles of planning, acting, observing, and reflecting emphasized that improvement is an ongoing process rather than a one-time fix. This mindset shift encouraged a proactive and persistent approach to tackling educational challenges. Improvement science prioritizes actionable and context-specific solutions (Perry et al., 2020). This pragmatic focus has deepened my appreciation for interventions that are not only theoretically sound but also feasible and sustainable in everyday educational settings.

The collaborative nature of improvement science highlighted the value of engaging with a diverse range of stakeholders (Perry et al., 2020). Their contributions enriched the research and ensured that the strategies developed were well-rounded and contextually appropriate. This process was pivotal in not wasting time with frivolous strategies. Instead, stakeholders discuss effective strategies and use them to gauge new learning with their students. This eliminates the continuous cycle of time being wasted with new and meaningless strategies that are known not to work.

The reliance on data to inform decisions reinforced the importance of evidence-based practice. This approach has cultivated a more analytical and systematic way of thinking, where decisions are grounded in robust data and continuous evaluation. The flexibility inherent in the

improvement science process fostered an adaptive mindset. Being open to change and responsive to new information has become a key aspect of my approach to research and practice.

Reflections on the Theory of Improvement

The improvement science process has profoundly influenced my research journey, shaping both the study's outcomes and my personal and professional development. The iterative, collaborative, and data-driven nature of improvement science has not only facilitated the development of effective strategies to address learning loss but has also instilled a more dynamic, practical, and inclusive approach to educational research and problem-solving. This newfound way of thinking will continue to guide my efforts to contribute to meaningful and sustained improvements in education.

Strengths of the Theory of Improvement

One of the core principles of the Theory of Improvement is the Plan-Do-Study-Act (PDSA) cycle, which involves iterative testing of changes. This approach proved highly effective in my study. The additional time that was designated to extend the regular learning day and maintaining the effective practices was beneficial to student growth (Schwartz, 2021). By implementing small-scale interventions, gathering data, and making adjustments, we were able to rapidly identify and refine strategies that effectively accelerated student learning. This iterative process allowed for continuous improvement and responsiveness to emerging challenges and insights.

The emphasis on using data to guide decisions was instrumental in the success of this study. Systematic data collection and analysis provided clear evidence of what was working and what was not. This evidence-based approach ensured that the interventions were grounded in real-world impact rather than theoretical assumptions. Key moments, such as identifying

significant gains in student performance through specific instructional practices, underscored the value of data in shaping effective educational strategies (Schwartz, 2021).

Engaging with teachers, school administrators, and policymakers was crucial in developing practical and contextually appropriate interventions. Their insights and feedback helped refine the strategies, ensuring they were feasible and relevant to the needs of students. This collaborative approach fostered a sense of shared ownership and commitment to the improvement process, enhancing the overall effectiveness of the interventions.

The Theory of Improvement's focus on context-specific solutions aligned well with the diverse and dynamic needs of students from low-income backgrounds. The flexibility to adapt interventions based on contextual factors such as school resources, student demographics, and local challenges was critical in achieving positive outcomes.

Areas for Refinement

Time, and how effectively we use in during instruction, has been the focus of this study. Time is limited, therefore, it should not be wasted doing “busy work” or having ineffective strategies used that do not make a positive impact. Because the program was only running for 7 to 8 weeks, turnaround time for determining whether or not the program was effective seemed to pose a slight problem. While iterative testing allows for rapid adjustments, there were instances where the need for quick results conflicted with the deeper, more comprehensive analysis of certain interventions. Future applications of the Theory of Improvement could benefit from balancing the speed of iterations with the depth of evaluation to ensure that complex issues are thoroughly understood and addressed.

Ensuring the long-term sustainability of successful interventions emerged as a challenge. Some strategies that proved effective in the short term required significant resources or ongoing

support that may not be readily available in all contexts. Integrating considerations of sustainability and scalability into the PDSA cycles from the outset could enhance the lasting impact of the improvements.

The focus on academic performance data was essential for evaluating the impact of the interventions. However, a more holistic approach considering social-emotional development, student engagement, and other non-academic outcomes could provide a more comprehensive understanding of the interventions' effectiveness. Broadening the scope of data collection and analysis would capture the full range of impacts on student well-being and learning (Kuhfeld et al., 2020). Overall, the Theory of Improvement has proven to be a powerful and effective framework for addressing the learning loss experienced by students from low-income backgrounds during the COVID-19 pandemic. Its strengths in iterative testing, data-driven decision-making, stakeholder collaboration, and contextual adaptability were clearly demonstrated in the study's positive outcomes. However, refining the approach to balance speed and depth, ensuring sustainability, and measuring holistic outcomes could further enhance its effectiveness. By addressing these areas, the Theory of Improvement can continue to serve as a valuable tool for driving meaningful and lasting improvements in education.

Reflections on the Aim

In Chapter 2, the primary aim of the study was to enable students from low-income backgrounds to achieve accelerated learning at a rate of at least the 55th percentile conditional growth. This goal was set to address the significant learning loss incurred during the COVID-19 pandemic and to ensure that these students could recover and surpass pre-pandemic academic performance levels. The study’s data analysis revealed that many students achieved or exceeded the target growth rate. Specifically, more than half of the participants did not demonstrate

conditional growth rates above the 55th percentile, but some students madeF exceptional progress. When compared to pre-intervention benchmarks, the post-intervention performance indicated substantial gains, suggesting that the implemented strategies were effective in accelerating learning. Only 1 of the 8 groups met and exceeded the 55 conditional growth percentile goal. Meanwhile 2 of the 8 groups met a normal year's growth goal and were only a few points shy of meeting the study's goal. Unfortunately, neither of these groups were students of poverty. Although the rate of growth (compared to other students) for students of poverty did not meet the expected pace, the growth that did take place had a large impact on the achievement growth towards meeting grade-level expectations. We observed significant growth with students of poverty increasing skillsets to meet their current grade-level performance expectations.

Potential for Meaningful Change

The strategies developed and tested in this study were specifically designed to be adaptable to the local context of South Carolina. This adaptability ensures that the interventions can be scaled and sustained within local schools, even beyond the initial study period. Collaboration with local educational authorities and stakeholders facilitated the allocation of resources necessary for implementing and maintaining these strategies, increasing the potential for long-term impact.

The success of the study provides a strong evidence base for advocating policy changes at the district and state levels. Policies promoting data-driven, iterative approaches to educational improvement could be instrumental in replicating and extending the gains achieved in this study. Ongoing professional development for teachers, focusing on the principles and practices of improvement science, can further embed these effective strategies into everyday educational practice.

The study's findings highlight the potential for targeted interventions to significantly close the achievement gap between students from low-income backgrounds and their more affluent peers (Bentley, 2018). By accelerating learning at the identified rate, these students can catch up to and even exceed expected academic benchmarks. The emphasis on equitable access to high-quality education is reinforced by the study's outcomes. Ensuring that all students, regardless of socioeconomic status, have the opportunity to succeed is a critical component of educational reform in South Carolina. The study achieved its intended impact to a significant extent, with many students reaching or exceeding the targeted 55th percentile conditional growth. The findings underscore the potential for meaningful and lasting change in the local educational context of South Carolina. By leveraging the principles of improvement science, educators and policymakers can continue to drive positive outcomes, promoting equity and excellence in education for all students. The lessons learned and successes documented in this study provide a valuable roadmap for future efforts to accelerate learning and close the achievement gap in South Carolina and beyond.

Analysis for Broader Implications for the Problem of Practice

The findings of this study offer a set of best practices that can be replicated and adapted by other educators and researchers working to address learning loss among students from low-income backgrounds. The iterative, data-driven, and collaborative approaches outlined in the study provide a robust framework for similar interventions. The success of the interventions in the local context of South Carolina suggests that with appropriate modifications, these strategies can be adapted to different educational settings, taking into account local resources, demographics, and challenges. By documenting the specific strategies that led to significant learning gains, the study provides a valuable evidence base for other groups to draw upon. This

includes targeted instructional practices, support structures, and engagement techniques that were shown to be effective in accelerating learning. Emphasizing the importance of the Plan-Do-Study-Act (PDSA) cycle, the study highlights the value of continuous improvement and adaptation, encouraging others to remain flexible and responsive to ongoing feedback.

Implications for Educational Leadership

Educational leaders can leverage the findings to advocate for and implement data-driven decision-making processes. By using empirical evidence to guide interventions, leaders can more effectively address learning gaps and allocate resources (Tomlinson et al., 2003). The study underscores the need for ongoing professional development focused on improvement science and data literacy. Leaders can prioritize training that equips teachers with the skills to collect, analyze, and act on data.

The iterative nature of the improvement science process has strengthened my ability to lead adaptively. This involves being open to change, responsive to new data, and willing to make adjustments as needed. Working closely with various stakeholders has reinforced the importance of collaboration and inclusivity in leadership. Engaging teachers, administrators, and policymakers has highlighted the value of diverse perspectives and shared ownership in driving change.

This work has deepened my understanding of the complexities involved in educational leadership, particularly the need to balance academic outcomes with the broader social-emotional needs of students. The focus on addressing disparities for low-income students has reinforced my commitment to equity and justice in education. Leading efforts to close the achievement gap has underscored the importance of advocating for all students' right to quality education.

Teachers benefited from professional development opportunities and the collaborative nature of the intervention (Riordan et al., 2019). This enhanced their instructional skills, data literacy, and ability to implement effective strategies. Involving teachers in the iterative process fostered a sense of empowerment and ownership over the interventions, leading to greater investment in and commitment to student success.

Implications for Systemic Change

The positive outcomes of the study can be used to support policy changes at district and state levels. Leaders can use the evidence to push for systemic reforms that incorporate the successful strategies identified in the study. Effective resource allocation is critical for scaling successful interventions. Leaders should focus on securing funding and support to sustain and expand these practices (Schwartz, 2021).

The study's success in accelerating learning for low-income students demonstrates the potential for targeted interventions to promote equitable access to education. By ensuring these students can recover and excel academically, the study contributes to closing the achievement gap. The findings advocate for systemic changes that prioritize equity. This includes policies and practices that address the unique challenges faced by students from low-income backgrounds and aim to level the educational playing field (Constantine et al., 2007).

Students demonstrated significant academic growth, reaching or exceeding the targeted 55th percentile conditional growth. This improvement not only helps recover lost learning but also boosts students' confidence and motivation. The focus on supportive and engaging instructional practices contributed to students' overall well-being, promoting a more holistic approach to education.

The study's success helped build trust between the school and the community, demonstrating a commitment to addressing the needs of all students. This trust is crucial for ongoing support and collaboration. The positive outcomes for students and teachers can have lasting benefits for the community, including higher educational attainment, improved socio-economic prospects, and a stronger, more resilient community fabric (Kuhfeld et al., 2020).

The findings of this study have broad implications for addressing the learning loss experienced by students from low-income backgrounds during the COVID-19 pandemic. By providing a robust framework for similar interventions, guiding educational leaders in strategic decision-making, and enhancing my leadership capacity, the study contributes significantly to the pursuit of equity and justice in education (Constantine et al., 2007). The positive impact on students, teachers, and the community underscores the potential for meaningful and lasting improvement in educational outcomes and underscores the importance of continuing to advocate for and implement evidence-based, equity-focused educational practices.

In conclusion, this research demonstrates that when school systems develop consistent instructional methods that are wisely integrated within a framework of effective instructional structures, and when teachers are empowered to use data to tailor specific learning strategies for individual students, all students can achieve academic success. This includes both students in poverty and those not in poverty, ensuring equitable learning opportunities. However, the evidence indicates that students who receive comprehensive support from wrap-around services and personal supports—such as family involvement, healthcare, social and emotional assistance, trust-building, and a conducive learning environment—tend to progress at a faster pace. The holistic growth and well-being of a child are influenced by all aspects of their life, reaffirming the notion that it takes a village to raise a child.

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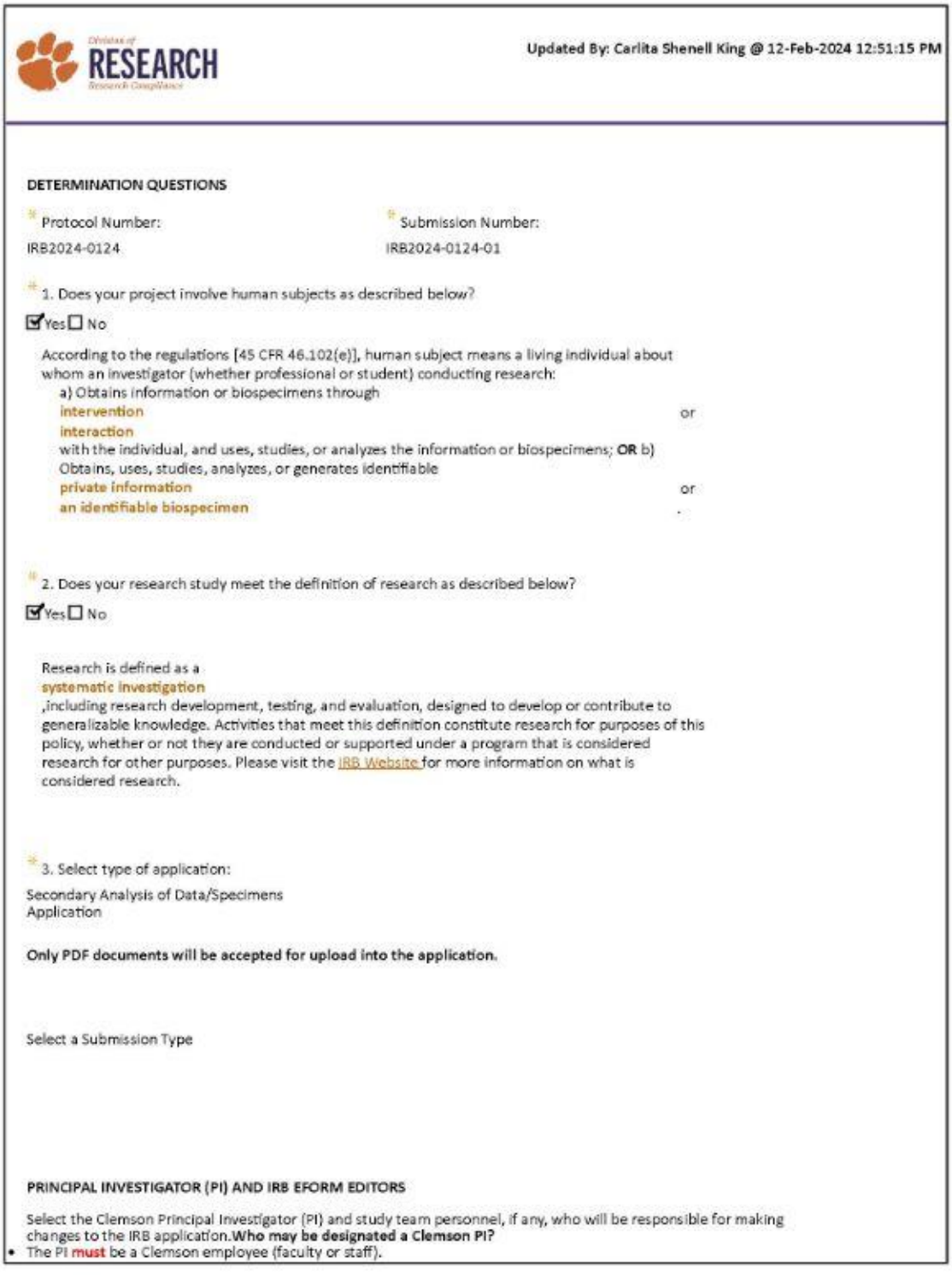
Appendix A

IRB Application to Conduct Research



Updated By: Carlita Shenell King @ 12-Feb-2024 12:51:15 PM

DETERMINATION QUESTIONS

* Protocol Number: IRB2024-0124

* Submission Number: IRB2024-0124-01

* 1. Does your project involve human subjects as described below?

☑ Yes ☐ No

According to the regulations [45 CFR 46.102(e)], human subject means a living individual about whom an investigator (whether professional or student) conducting research:
a) Obtains information or biospecimens through
intervention or interaction
with the individual, and uses, studies, or analyzes the information or biospecimens; **OR** b) Obtains, uses, studies, analyzes, or generates identifiable
private information or an identifiable biospecimen.

* 2. Does your research study meet the definition of research as described below?

☑ Yes ☐ No

Research is defined as a
systematic investigation
,including research development, testing, and evaluation, designed to develop or contribute to generalizable knowledge. Activities that meet this definition constitute research for purposes of this policy, whether or not they are conducted or supported under a program that is considered research for other purposes. Please visit the IRB Website for more information on what is considered research.

* 3. Select type of application:

Secondary Analysis of Data/Specimens Application

Only PDF documents will be accepted for upload into the application.

Select a Submission Type

PRINCIPAL INVESTIGATOR (PI) AND IRB EFORM EDITORS

Select the Clemson Principal Investigator (PI) and study team personnel, if any, who will be responsible for making changes to the IRB application.**Who may be designated a Clemson PI?**

- The PI **must** be a Clemson employee (faculty or staff).

- Students may not be the PI, including employees completing the research study for their graduate degree.
- View Clemson's Assignment of PI Policy.

Who may be designated an IRB application editor?

- IRB application editors may be Clemson employees or students.
- Study team personnel designated as IRB application editors will be granted permission to access application and make changes on behalf of the PI.
- IRB editors must be added on this page to have access to the application.
- No more than 2 individuals may be IRB editors to avoid application access issues.

How to add the PI and study personnel who will edit the IRB application:

- Click the yellow plus (✚) symbol and search for their name. The individual's name must appear on the list to be added on this page.
- If you want an individual to have permission to edit the IRB application and their name does not appear on the picklist, send an e-mail to the IRB office. Only individuals with a Clemson e-mail address may be granted permission to edit the IRB application.

How do I change the PI?

- The PI may be changed on this page. The PI must be a Clemson employee (faculty or staff).
- Add the name of the new PI first,
- then check the "Primary Investigator" checkbox to identify the new PI. If the former PI is no longer working on the study, enter the "End Date" to change the status of that person from the protocol.

Other important information:

- Upload CITI human subjects research protections training documentation for each study personnel.
- Do not enter all study personnel on this page. Only the PI and IRB editors must be listed on this page.
- Enter other study personnel under the OTHER PERSONNEL section.
- IRB Editors may locate the application by using the Quick Find search box on the InfoEd Home screen.

▼ Personnel - Review

* Name

Hinnant-Crawford, Brandi Nicole

Primary Investigator ☑

* Position

Faculty

* Project Responsibilities:

Dissertation Chair

The start and end dates on this page are NOT the research timeline for the study. These dates indicate how long the individual is working on the study. The start date will automatically populate. The end date is disabled until the submission is approved and you want to change the PI or remove an individual listed on this page.

* Start Date: 12-Feb-2024

End Date:

Certifications:

* Upload:

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CITI Training FERPA.pdf 12-Feb-2024 12:08:00 PM

* Name

King, Carlita Shenell

Primary Investigator	* Position
☐	Graduate Student

* Project Responsibilities:

Action Researcher

The start and end dates on this page are NOT the research timeline for the study. These dates indicate how long the individual is working on the study. The start date will automatically populate. The end date is disabled until the submission is approved and you want to change the PI or remove an individual listed on this page.

* Start Date	End Date
12-Feb-2024	

Certifications:

* Upload:	
IRB Completion Report (3-22-2023).pdf	12-Feb-2024 12:50:56 PM
Citi Program - IRB Certificate (3-22-2023).pdf	12-Feb-2024 12:51:13 PM

OTHER PERSONNEL

Manually enter other study personnel who will be working on the study. Add study personnel by clicking the yellow plus (✚) symbol. Upload CITI human subjects research protections training documentation for each study personnel listed in this section.**Who may be listed as OTHER PERSONNEL?**

- Anyone that will be involved with "actively recruiting" participants. Actively recruiting is when a person is soliciting participation for the study. They are interacting with a potential participant either in-person, by phone, or e-mail and answering questions about the study. Individuals forwarding a CU-IRB Office approved e-mail message or sharing a flyer about the study ARE NOT considered actively recruiting and do not have to be listed as a study personnel.
- Anyone that will be involved with consenting participants, either in-person, by phone, or through a remote platform (i.e., Zoom).
- Anyone that will be involved with data collection (i.e., conducting interviews, administering surveys, facilitating research tasks). Instructors/teachers of a class distributing or collecting a paper survey on behalf of the study team are not considered a study personnel IF they will not assist with data analysis or want access to identifiable data for a separate study.
- For more information on who is considered "engaged" in human subjects research, refer to OHRP's guidance on Engagement of Institutions in Human Subjects Research (2008).

When to list non-Clemson affiliated personnel on the CU-IRB application?

- DO NOT list non-Clemson affiliated personnel for the following application types: Deferral Application, Developmental Approval Application, Exempt Research Application, Secondary Analysis of Data/Specimens Application. Non-Clemson personnel will not be covered under the CU-IRB Office determination for these application types.
- If you are submitting a new Expedited Research or Full Board Application for a study that HAS NOT received IRB approval at another institution, then you may list the other non-Clemson affiliated personnel on the CU-IRB application. An IRB Authorization Agreement (reliance agreement) is required for each cooperative research sites (collaborating institutions). The CU-IRB Office will notify you of the requirements after reviewing your initial application.

- The CU-IRB Office DOES NOT enter into reliance agreements for Exempt level studies. Exempt level studies have to be reviewed at the local institution for each non-Clemson affiliated personnel.

Other important information:

- For Expedited and Full Board determinations, periodically review and update study personnel list. Delete names of individuals no longer working on the study. A history of the changes is available under Form History.
- For Exempt determinations, you do not have to report changes to OTHER PERSONNEL.
- Do not enter names of individuals already listed under the PRIMARY PERSONNEL (IRB EFORM EDITORS) section of the application.

GENERAL QUESTIONS

* 1. Enter Project Title:

Don't Waste Our Time: Key Transformative Structures for Fast Track Learning

* 2. Describe the purpose and goals of the research using plain language (avoid technical terms, acronyms or jargon, unless explained):

Darlington County School District, like all existing educational institutionsand systems during this global pandemic, has watched its students struggle and be affected by thistragic phenomenon that forced schools to close their doors for at least three months. Because ofstudents not having consistent and ongoing new learning opportunities, students across our nationexperienced drastic learning loss. Darlington County School District has made it a leading priority towork hard to recover the learning loss of our students.Now that we are one year later after initial school closings and we are trying to getoperations similar to the way things used to operate, how will we recover learning loss andbegin closing achievement gaps with our students?Where are students now with the skill levels?What have they mastered and truly understand?What are the next steps/skills that need to be addressed for students' individual growth?What strategies should be considered to accelerate student learning when trying torecover learning loss due to being out during COVID-19 school closures?How will we monitor the progress of student performance to determine growth?

* 3. Describe the potential benefit(s) to the participants and/or society that may be reasonably expected as a result from this study:

An Academic Enhancement Program will be developed to "assist" withthe daily Tier One (general education for all students) instructional process. This program willprovide additional time for learning and support for students to acquire new academic skills thatthey did not get during school closures or receive additional support for concepts notunderstood. It is the intent that the instruction within the Academic Enhancement Program will bevery intentional, strategic, and personalized. Student progress will be monitored closely andfrequently to inform teachers and administrators of the needed adjustments for the nextsteps. Most importantly, the development of our Academic Enhancement Program will not dictateanything new. Instead, there will be more intensive time with effective instructional best practices.Participating in the research study on "Don't Waste Our Time: Key Transformative Structures for Fast Track Learning" can offer numerous benefits to the Darlington County School District. Here are some key advantages of the school system's involvement in this study:• The study will provide valuable data and insights that can inform data-driven decision-making within the district. This can lead to more effective allocation of resources, targeted interventions, andimproved overall educational strategies.• By understanding the unique challenges faced by students of poverty, the district can develop andimplement tailored support programs and interventions to address their specific needs. This can leadto improved academic performance and well-being among this student demographic.• Participation in the study reinforces the district's commitment to educational equity and inclusion. Itdemonstrates a proactive approach to narrowing achievement gaps and ensuring that all studentshave an equitable chance at success.

* 4. Describe how research results will be shared (e.g., academic publication, evaluation report to funder, conference presentation):

All stakeholders will have a major role to play in reviewing data. Teachers will have powerful conversations with their colleagues and school leadership during regular Professional Learning Community times. Teachers will also have meaningful conversations with their students to set goals and review progress to determine whether or not learning objectives have been

accomplished. These types of discussions will make a significant impact on student success when conducted weekly and biweekly. Finally, the schools' leadership teams will collect this data monthly and quarterly to make more systems-approached interventions and decisions. The final quantitative data will be collected from the schools and recorded to determine patterns, trends, and comparisons.• The research findings can inform professional development opportunities for educators, helping themgain a deeper understanding of effective strategies for teaching students of poverty. This can lead toimproved teaching practices and increased job satisfaction among teachers.• Ultimately, the study aims to identify strategies that will lead to positive educational outcomes forstudents of poverty. These outcomes include improved academic achievement, increased graduationrates, and greater opportunities for success beyond high school.• The study can serve as a benchmarking tool, allowing the district to assess its progress in addressing the needs of economically disadvantaged students over time. This data-driven approach can enhance accountability and transparency.

5. Research Timeline: Allow time for IRB office review. Start date must be a future date and not today's date.

* Anticipated Start Date: 19-Feb-2024

* Anticipated Completion Date: 19-Apr-2024

FUNDING INFORMATION

* 1. Is the study funded, may be funded or are you offering monetary incentives?

☐ Yes ☑ No

SECONDARY ANALYSIS OF DATA/SPECIMENS INFORMATION

An Institutional Biosafety Committee (IBC) protocol may be required for secondary research use of biospecimens.

1. Are you requesting access to data, biospecimens, or both?

Data

* 2. Does the data/specimens include identifiable data?

☐ Yes ☑ No

* List the data fields/variables or describe the biospecimens or data that you will receive:

grade leveltesting categoryMAP RIT scoreMAP academic levelconditional growth poverty indicatorSC Ready scoreAEP attendance

* 3. Identify the data holder or source of the data/biospecimens:

computer/laptop

* 4. Is a Data Use Agreement or Material Transfer Agreement required for you to access the data/biospecimens?

◉ Yes ○ No

Upload agreement. Request to Conduct Research (1).pdf

* 5. Do you have additional documents to upload for IRB review (e.g., data fields/variables description, project summary)?

☐ Yes ☑ No

* 6. How will the data/specimens be transferred securely from the source system/data holder:

Our data collection cycles will need the following information for review: student performance, attendance, and demographic data will be extracted from PowerSchool, NWEA, and Frontline data warehouses into EXCEL files. All data is secondary data that the district maintains on a regular basis. All student-identifiable information (names, student IDs, etc. will be removed).

* 7. Describe where you will store the data and/or specimens:

The information you provide for this research will be treated confidentially, and all data will be kept secure. All data will be digital and will be stored with a password-protected laptop, which will only be accessible to me. The research results will be reported as summary data only, and no individually identifiable information will be presented. To protect the participants, the names of the school and faculty will remain anonymous. All information obtained in this study will be held in the strictest confidentiality. No students' names or identifiable information will be reported or shared in the findings of this study.

PI CONFIRMATION

* 1. Conflict of Interest Statement/Financial Disclosure: Could the results of the research provide an actual or potential financial gain to you, a member of your family, any of the co-investigators, or give the appearance of a potential financial conflict or other conflict of interest (COI)? Refer to Conflict of Interest page for more information.

☐ Yes ☑ No

Submission from the PI certifies that:

- The information in the application is accurate and complete.
- The PI is familiar with the Federalwide Assurance (FWA) for the Protection of Human Subjects held by Clemson University and institutional guidelines regarding human subjects research and agrees to abide by the provisions of the Assurance and the determination of the IRB.
- The PI is responsible for assuring that all team members listed on the protocol are properly trained and adverse events, research-related injuries, or unexpected problems affecting the rights or safety of research participants are reported promptly to the IRB office.
- The proposed research study is in compliance with the PI's department policies and procedures.
- The PI understands that failure to adhere to any of these guidelines may result in immediate suspension or termination of the research.

* Principal Investigator:	* Date
Brandi Nicole Hinnant-Crawford	12-Feb-2024

This is the last page of the form. Do not click "Next." Click the Submit button on the top right to send the submission to the IRB office.

Appendix 1

EForm Name: Application Form
Page: Principal Investigator (PI) and IRB eForm Editors
Section: Personnel - Review
Question: Upload:
File Name: IRB Completion Report (3-22-2023).pdf

COLLABORATIVE INSTITUTIONAL TRAINING INITIATIVE (CITI PROGRAM)

COMPLETION REPORT - PART 1 OF 2

COURSEWORK REQUIREMENTS*

* NOTE: Scores on this Requirements Report reflect quiz completions at the time all requirements for the course were met. See list below for details. See separate Transcript Report for more recent quiz scores, including those on optional (supplemental) course elements.

- **Name:** Carlita King (ID: 10088977)
- **Institution Affiliation:** Clemson University (ID: 539)
- **Institution Email:** carlitd@g.clemson.edu

- **Curriculum Group:** Human Subjects Protections Course
- **Course Learner Group:** Group 1 Investigators Conducting Social and Behavioral Science Research (SBR) at Clemson University
- **Stage:** Stage 2 - Refresher Course

- **Record ID:** 53950133
- **Completion Date:** 22-Mar-2023
- **Expiration Date:** 22-Mar-2025
- **Minimum Passing:** 80
- **Reported Score*:** 96

REQUIRED AND ELECTIVE MODULES ONLY	DATE COMPLETED	SCORE
SBE Refresher 2 - Instructions (ID: 12629)	22-Mar-2023	No Quiz
SBE Refresher 1 – Defining Research with Human Subjects (ID: 15029)	22-Mar-2023	2/2 (100%)
SBE Refresher 1 – Privacy and Confidentiality (ID: 15035)	22-Mar-2023	4/4 (100%)
SBE Refresher 1 – Assessing Risk (ID: 15034)	22-Mar-2023	2/2 (100%)
SBE Refresher 1 – Research with Children (ID: 15036)	22-Mar-2023	2/2 (100%)
SBE Refresher 1 – International Research (ID: 15028)	22-Mar-2023	2/2 (100%)
SBE Refresher 2 – Federal Regulations for Protecting Research Subjects (ID: 15040)	22-Mar-2023	1/2 (50%)
SBE Refresher 2 – Defining Research with Human Subjects (ID: 15038)	22-Mar-2023	1/1 (100%)
SBE Refresher 2 – Research with Children (ID: 15043)	22-Mar-2023	1/1 (100%)
SBE Refresher 2 – Research in the Public Schools (ID: 15042)	22-Mar-2023	1/1 (100%)
SBE Refresher 2 – International Research (ID: 15045)	22-Mar-2023	1/1 (100%)
SBE Refresher 1 – History and Ethical Principles (ID: 936)	22-Mar-2023	2/2 (100%)
SBE Refresher 1 – Federal Regulations for Protecting Research Subjects (ID: 937)	22-Mar-2023	2/2 (100%)
SBE Refresher 1 – Informed Consent (ID: 938)	22-Mar-2023	2/2 (100%)
SBE Refresher 1 – Research with Prisoners (ID: 939)	22-Mar-2023	2/2 (100%)
SBE Refresher 1 – Research in Educational Settings (ID: 940)	22-Mar-2023	2/2 (100%)
SBE Refresher 1 - Instructions (ID: 943)	22-Mar-2023	No Quiz

For this Report to be valid, the learner identified above must have had a valid affiliation with the CITI Program subscribing institution identified above or have been a paid Independent Learner.

Verify at: www.citiprogram.org/verify/?k4f141cdc-3740-4e87-807a-aa413861e55a-53950133

Collaborative Institutional Training Initiative (CITI Program)
101 NE 3rd Avenue
Suite 320
Fort Lauderdale, FL 33301 US

Email: support@citiprogram.org
Phone: 888-529-5929
Web: https://www.citiprogram.org

COLLABORATIVE INSTITUTIONAL TRAINING INITIATIVE (CITI PROGRAM)

COMPLETION REPORT - PART 2 OF 2

COURSEWORK TRANSCRIPT**

** NOTE: Scores on this Transcript Report reflect the most current quiz completions, including quizzes on optional (supplemental) elements of the course. See list below for details. See separate Requirements Report for the reported scores at the time all requirements for the course were met.

- **Name:** Carlita King (ID: 10088977)
- **Institution Affiliation:** Clemson University (ID: 539)
- **Institution Email:** carlitd@g.clemson.edu

- **Curriculum Group:** Human Subjects Protections Course
- **Course Learner Group:** Group 1 Investigators Conducting Social and Behavioral Science Research (SBR) at Clemson University
- **Stage:** Stage 2 - Refresher Course

- **Record ID:** 53950133
- **Report Date:** 22-Mar-2023
- **Current Score**:** 96

REQUIRED, ELECTIVE, AND SUPPLEMENTAL MODULES	MOST RECENT	SCORE
SBE Refresher 1 - Instructions (ID: 943)	22-Mar-2023	No Quiz
SBE Refresher 2 - Instructions (ID: 12629)	22-Mar-2023	No Quiz
SBE Refresher 1 – History and Ethical Principles (ID: 936)	22-Mar-2023	2/2 (100%)
SBE Refresher 1 – Federal Regulations for Protecting Research Subjects (ID: 937)	22-Mar-2023	2/2 (100%)
SBE Refresher 2 – Federal Regulations for Protecting Research Subjects (ID: 15040)	22-Mar-2023	1/2 (50%)
SBE Refresher 2 – Defining Research with Human Subjects (ID: 15038)	22-Mar-2023	1/1 (100%)
SBE Refresher 1 – Defining Research with Human Subjects (ID: 15029)	22-Mar-2023	2/2 (100%)
SBE Refresher 1 – Informed Consent (ID: 938)	22-Mar-2023	2/2 (100%)
SBE Refresher 1 – Assessing Risk (ID: 15034)	22-Mar-2023	2/2 (100%)
SBE Refresher 1 – Privacy and Confidentiality (ID: 15035)	22-Mar-2023	4/4 (100%)
SBE Refresher 1 – Research with Prisoners (ID: 939)	22-Mar-2023	2/2 (100%)
SBE Refresher 1 – Research with Children (ID: 15036)	22-Mar-2023	2/2 (100%)
SBE Refresher 2 – Research with Children (ID: 15043)	22-Mar-2023	1/1 (100%)
SBE Refresher 2 – Research in the Public Schools (ID: 15042)	22-Mar-2023	1/1 (100%)
SBE Refresher 1 – Research in Educational Settings (ID: 940)	22-Mar-2023	2/2 (100%)
SBE Refresher 1 – International Research (ID: 15028)	22-Mar-2023	2/2 (100%)
SBE Refresher 2 – International Research (ID: 15045)	22-Mar-2023	1/1 (100%)

For this Report to be valid, the learner identified above must have had a valid affiliation with the CITI Program subscribing institution identified above or have been a paid Independent Learner.

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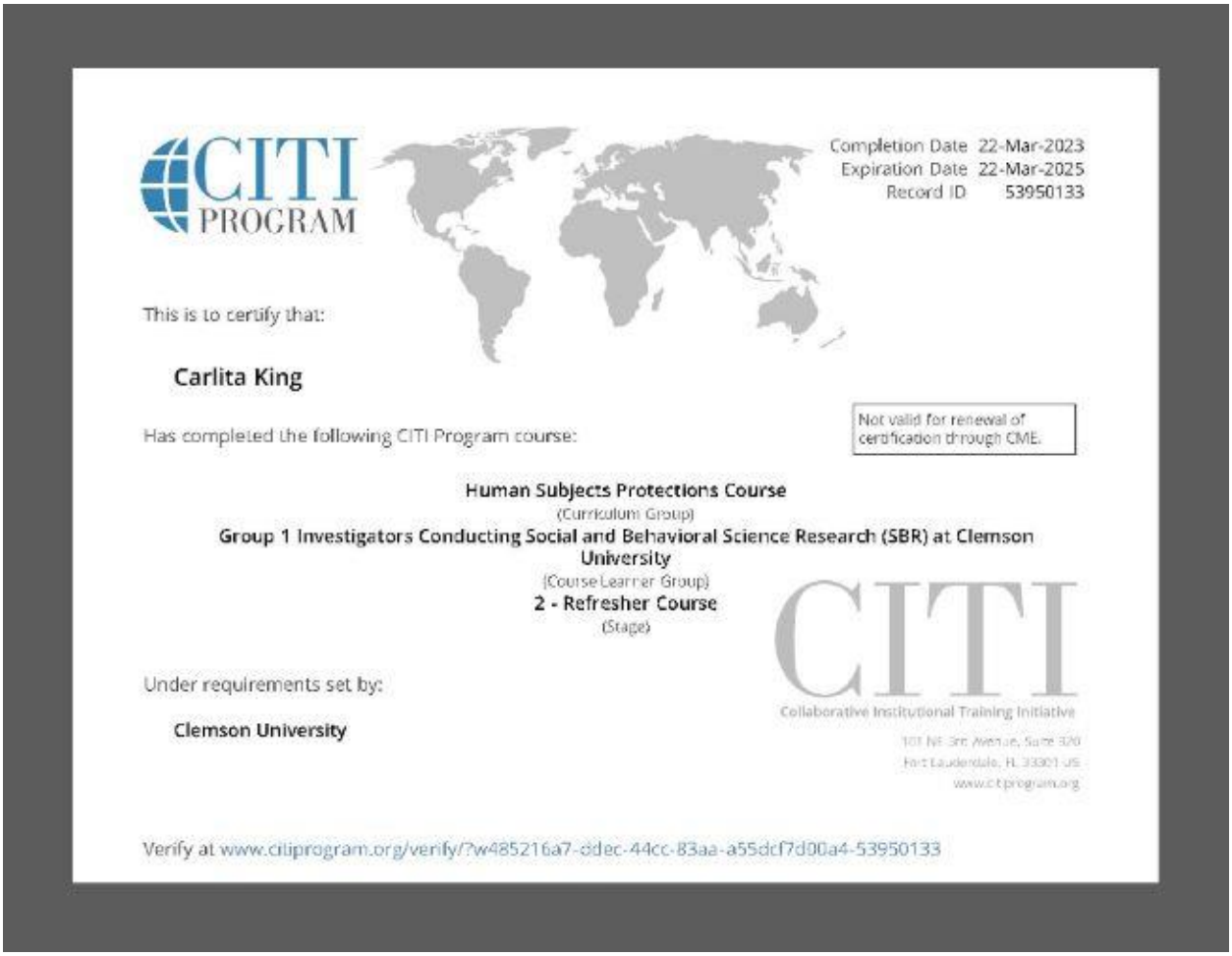
Collaborative Institutional Training Initiative (CITI Program)
101 NE 3rd Avenue
Suite 320
Fort Lauderdale, FL 33301 US

Email: support@citiprogram.org
Phone: 888-529-5929
Web: https://www.citiprogram.org

Appendix 2

EForm Name: Application Form
Page: Principal Investigator (PI) and IRB eForm Editors
Section: Personnel - Review
Question: Upload:
File Name: Citi Program - IRB Certificate (3-22-2023).pdf



CITI PROGRAM

Completion Date 22-Mar-2023
Expiration Date 22-Mar-2025
Record ID 53950133

This is to certify that:

Carlita King

Has completed the following CITI Program course:

Not valid for renewal of certification through CME.

Human Subjects Protections Course
(Curriculum Group)
Group 1 Investigators Conducting Social and Behavioral Science Research (SBR) at Clemson University
(Course Learner Group)
2 - Refresher Course
(Stage)

Under requirements set by:

Clemson University

CITI
Collaborative Institutional Training Initiative

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Fort Lauderdale, FL 33301 US
www.citiprogram.org

Verify at www.citiprogram.org/verify/?w485216a7-ddec-44cc-83aa-a55dcf7d00a4-53950133

Appendix 3

EForm Name: Application Form
Page: Principal Investigator (PI) and IRB eForm Editors
Section: Personnel - Review
Question: Upload:
File Name: CITI_Training_BNHC Completion Report.pdf

COLLABORATIVE INSTITUTIONAL TRAINING INITIATIVE (CITI PROGRAM)

COMPLETION REPORT - PART 1 OF 2

COURSEWORK REQUIREMENTS*

* NOTE: Scores on this Requirements Report reflect quiz completions at the time all requirements for the course were met. See list below for details. See separate Transcript Report for more recent quiz scores, including those on optional (supplemental) course elements.

- **Name:** Brandi Hinnant-Crawford (ID: 1036632)
- **Institution Affiliation:** Clemson University (ID: 539)
- **Institution Email:** bhinnan@clemson.edu
- **Institution Unit:** EOLD

- **Curriculum Group:** Human Subjects Protections Course
- **Course Learner Group:** Group 1 Investigators Conducting Social and Behavioral Science Research (SBR) at Clemson University
- **Stage:** Stage 1 - Basic Course

- **Record ID:** 50873114
- **Completion Date:** 03-Jan-2023
- **Expiration Date:** 03-Jan-2025
- **Minimum Passing:** 80
- **Reported Score*:** 92

REQUIRED AND ELECTIVE MODULES ONLY	DATE COMPLETED	SCORE
Unanticipated Problems and Reporting Requirements in Social and Behavioral Research (ID: 14928)	27-Sep-2022	5/5 (100%)
Populations in Research Requiring Additional Considerations and/or Protections (ID: 16680)	14-Nov-2022	5/5 (100%)
Conflicts of Interest in Human Subjects Research (ID: 17464)	15-Nov-2022	4/5 (80%)
History and Ethical Principles - SBE (ID: 490)	16-Jan-2021	4/5 (80%)
Defining Research with Human Subjects - SBE (ID: 491)	16-Jan-2021	5/5 (100%)
The Federal Regulations - SBE (ID: 502)	16-Jan-2021	5/5 (100%)
Assessing Risk - SBE (ID: 503)	16-Jan-2021	4/5 (80%)
Informed Consent - SBE (ID: 504)	16-Jan-2021	4/5 (80%)
Privacy and Confidentiality - SBE (ID: 505)	16-Jan-2021	5/5 (100%)
Clemson University (ID: 823)	15-Nov-2022	No Quiz
Students in Research (ID: 1321)	15-Nov-2022	5/5 (100%)
Internet-Based Research - SBE (ID: 510)	03-Jan-2023	5/5 (100%)
International Research - SBE (ID: 509)	03-Jan-2023	4/5 (80%)

For this Report to be valid, the learner identified above must have had a valid affiliation with the CITI Program subscribing institution identified above or have been a paid Independent Learner.

Verify at: www.citiprogram.org/verify/?k85812e78-b600-4d71-bb85-00d969229291-50873114

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COLLABORATIVE INSTITUTIONAL TRAINING INITIATIVE (CITI PROGRAM)

COMPLETION REPORT - PART 2 OF 2

COURSEWORK TRANSCRIPT**

** NOTE: Scores on this Transcript Report reflect the most current quiz completions, including quizzes on optional (supplemental) elements of the course. See list below for details. See separate Requirements Report for the reported scores at the time all requirements for the course were met.

- **Name:** Brandi Hinnant-Crawford (ID: 1036632)
- **Institution Affiliation:** Clemson University (ID: 539)
- **Institution Email:** bhinnan@clemson.edu
- **Institution Unit:** EOLD

- **Curriculum Group:** Human Subjects Protections Course
- **Course Learner Group:** Group 1 Investigators Conducting Social and Behavioral Science Research (SBR) at Clemson University
- **Stage:** Stage 1 - Basic Course

- **Record ID:** 50873114
- **Report Date:** 03-Jan-2023
- **Current Score**:** 92

REQUIRED, ELECTIVE, AND SUPPLEMENTAL MODULES	MOST RECENT	SCORE
Students in Research (ID: 1321)	15-Nov-2022	5/5 (100%)
Defining Research with Human Subjects - SBE (ID: 491)	16-Jan-2021	5/5 (100%)
The Federal Regulations - SBE (ID: 502)	16-Jan-2021	5/5 (100%)
Clemson University (ID: 823)	15-Nov-2022	No Quiz
FERPA for Researchers (ID: 17410)	11-May-2017	5/5 (100%)
Assessing Risk - SBE (ID: 503)	16-Jan-2021	4/5 (80%)
Informed Consent - SBE (ID: 504)	16-Jan-2021	4/5 (80%)
Privacy and Confidentiality - SBE (ID: 505)	16-Jan-2021	5/5 (100%)
International Research - SBE (ID: 509)	03-Jan-2023	4/5 (80%)
Internet-Based Research - SBE (ID: 510)	03-Jan-2023	5/5 (100%)
Unanticipated Problems and Reporting Requirements in Social and Behavioral Research (ID: 14928)	27-Sep-2022	5/5 (100%)
History and Ethical Principles - SBE (ID: 490)	16-Jan-2021	4/5 (80%)
Populations in Research Requiring Additional Considerations and/or Protections (ID: 16680)	14-Nov-2022	5/5 (100%)
Conflicts of Interest in Human Subjects Research (ID: 17464)	15-Nov-2022	4/5 (80%)

For this Report to be valid, the learner identified above must have had a valid affiliation with the CITI Program subscribing institution identified above or have been a paid Independent Learner.

Verify at: www.citiprogram.org/verify/?k85812e78-b600-4d71-bb85-00d969229291-50873114

Collaborative Institutional Training Initiative (CITI Program)
Email: support@citiprogram.org
Phone: 888-529-5929
Web: https://www.citiprogram.org

Appendix 4

EForm Name: Application Form
Page: Principal Investigator (PI) and IRB eForm Editors
Section: Personnel - Review
Question: Upload:
File Name: CITI Training FERPA.pdf

CITI PROGRAM

Completion Date 11-May-2017
Expiration Date N/A
Record ID 23047547

This is to certify that:

Brandi Hinnant-Crawford

Not valid for renewal of certification through CME.

Has completed the following CITI Program course:

Information Privacy Security (IPS)
(Curriculum Group)
Family Educational Rights and Privacy Act (FERPA)
(Course Learner Group)
1 - Basic Course
(Stage)

Under requirements set by:

Western Carolina University

CITI
Collaborative Institutional Training Initiative

Verify at www.citiprogram.org/verify/?wad2d7f7b-927a-42f0-906a-40d55a501ca1-23047547

Appendix 5

EForm Name: Application Form
Page: Secondary Analysis of Data/Specimens Information
Section:
Question: Upload agreement.
File Name: Request to Conduct Research (1).pdf

Appendix B

Letter of Consent to Conduct Research by School District

CLEMSON
College of EDUCATION

February 1, 2024

Dr. Timothy Newman, Superintendent
Darlington County School District
120 E. Smith Avenue
Darlington, South Carolina 29532

Dear Dr. Newman,

I am currently enrolled in the Educational Doctoral Program at Clemson University, and I am writing to request approval and support for my research project. This work will hopefully benefit the district greatly since I also serve as the Assistant Superintendent for Curriculum, Instruction, and Assessment here. The research project, titled "Don't Waste Our Time: Key Transformative Structures for Fast Track Learning" is a critical initiative aimed at improving student learning outcomes among our economically disadvantaged students.

The purpose of this research is to gain a comprehensive understanding of the challenges and opportunities that students of poverty face within our district. By analyzing relevant data, I intend to identify effective instructional strategies and interventions that can significantly impact the educational experiences and outcomes of these students. Meanwhile, my ultimate goal is to ensure that every student in our district has access to high-quality education and equitable opportunities for success.

To achieve these objectives, I am requesting your permission to access and utilize student data from our schools within the Darlington County School District. The data I seek includes anonymized and aggregated information related to academic performance, attendance records, socioeconomic backgrounds, and any other pertinent data that can provide valuable insights into the needs of our economically disadvantaged students.

I want to emphasize that I am fully committed to maintaining the highest standards of data privacy and security throughout the research process in strict accordance with all applicable laws and regulations, including the Family Educational Rights and Privacy Act (FERPA). I am prepared to provide any necessary documentation and assurances to demonstrate the ethical and responsible use of the data.
Individual student identities will not be used, and data will be used solely for research purposes.

Moreover, the outcomes of this research have the potential to benefit our district immensely. The insights gained will inform curriculum development, instructional practices, and support programs tailored specifically to meet the needs of students of poverty. By approving this research, we will be taking a significant step towards improving the educational experience and outcomes of our most vulnerable students.

Your support is crucial in our collective efforts to enhance educational equity and ensure the success of all students in the Darlington County School District. Please do not hesitate to contact me if there is a need for any further discussions regarding this important and valuable research project.

Sincerely,

Carlita S. King

Cc: Mr. Charles Miller, Executive Director (Office of Human Resources)

Letter Request to Conduct Research

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Request to Conduct Research

Participating in the research study on "Don't Waste Our Time: Key Transformative Structures for Fast Track Learning" can offer numerous benefits to the Darlington County School District. Here are some key advantages of the school system's involvement in this study:

- The study will provide valuable data and insights that can inform data-driven decision-making within the district. This can lead to more effective allocation of resources, targeted interventions, and improved overall educational strategies.
- By understanding the unique challenges faced by students of poverty, the district can develop and implement tailored support programs and interventions to address their specific needs. This can lead to improved academic performance and well-being among this student demographic.
- Participation in the study reinforces the district's commitment to educational equity and inclusion. It demonstrates a proactive approach to narrowing achievement gaps and ensuring that all students have an equitable chance at success.
- The research findings can inform professional development opportunities for educators, helping them gain a deeper understanding of effective strategies for teaching students of poverty. This can lead to improved teaching practices and increased job satisfaction among teachers.
- Ultimately, the study aims to identify strategies that will lead to positive educational outcomes for students of poverty. These outcomes include improved academic achievement, increased graduation rates, and greater opportunities for success beyond high school.
- The study can serve as a benchmarking tool, allowing the district to assess its progress in addressing the needs of economically disadvantaged students over time. This data-driven approach can enhance accountability and transparency.

As described in 35 CFR 99.31 (a)(6),

(i) The disclosure is to organizations conducting studies for, or on the behalf of, educational agencies or institutions to improve instruction.

(ii) And the following conditions are met:

- The study is conducted in a manner that does not permit personal identification of parents and students by individuals other than representatives of the organizations; and
- The information is destroyed when no longer needed for the purposes for which the study was conducted.

Because of the benefits explained above, I understand the purpose for participating in the research study on accelerating the learning of students of poverty can position the Darlington County School District as a proactive, data-driven educational institution dedicated to the success of all its students. I understand the benefits and approve the voluntary participation of Darlington County School District, according to the terms and conditions as outlined.

Superintendent's/Designee's Signature: 

Print Name: Charles Miller, Executive Director of Human Resources Date: 04/27/2024

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Request to Conduct Research

Study Title: Don't Waste Our Time: Key Transformative Structures for Fast Track Learning

Study Timeframe: February 2024 - May 2024

Principal Investigator: Carlita S. King
Doctoral Candidate, Clemson University
College of Education
(803) 747-3813
carlitd@g.clemson.edu

Study Partners:
There are no associate investigators or study partners conducting the research

Faculty Sponsors:
Dr. Brandi Hinnant-Crawford, Dissertation Committee Chair
Dr. Edwin Bonney, III
Dr. Kelly Pew
Dr. Noelle A. Paufler

1. STUDY SUMMARY:

Beginning in March 2020, the world experienced the Coronavirus Pandemic, which not only affected the health of individuals globally but also left a long-lasting effect on schools and student learning. COVID slide shows a pattern of learning loss that students have experienced typically during summer months when schools are closed. But now, there is a greater and larger gap in learning loss due to worldwide extended school closures.

Shedeler, Scaduto, and Wivell (2020) conducted research in an Eastern Long Island, New York School District with a focus on providing additional or extended learning opportunities. The district has seen significant growth in English Language Learners over the past decade. The district recognizes that these students usually make strong progress during the academic school year but experience noticeable loss when spending two months away from school in the summer. The district, while partnering with Stony Brook University, has run a summer program for seven years with the goal of helping students learn English. For two summers, reading scores for students in the program were closely examined. When reading scores at the end of the school year were compared with reading scores at the start of the following school year, surprisingly, the students who attended the program regularly were able to start the school year in September without learning loss. In fact, the majority of students had reading scores that either improved or remained at the same level. This was a great step towards reducing the academic learning gap.

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Additional research conducted by J. Johnson and N. Barr (2021) has also been considered. This study presents a hands-on lab experience in which students were allowed to be successful engineers, especially those who are identified as kinesthetic learners. The case study describes how a Mechanical Engineering Practice course sequence was redesigned during the COVID-19 emergency transition to remote learning and examines how students responded to these changes. The remote course included videos of Graduate Teaching Assistants conducting data acquisition phases of the practice session to replace hands-on experiments. To understand student perspectives and individual learning modalities, researchers reviewed approximately 400 reflective essays from Spring 2020 and compared assignment submissions between Fall 2019 and Spring 2020. Results suggest that some students perceived the loss of hands-on activities as detrimental to their learning, and it was not comparable to face-to-face counterparts. Furthermore, students felt forced to develop self-directed learning skills. However, in contrast to student comments in reflective essays, comparisons of assignment submissions suggested that students in Spring 2020 did not receive lower grades or had a reduced demonstration of conceptual knowledge obtained in the course.

2. STUDY PURPOSE AND RESEARCH QUESTIONS:

Darlington County School District, like all existing educational institutions and systems during this global pandemic, has watched its students struggle and be affected by this tragic phenomenon that forced schools to close their doors for at least three months. Because of students not having consistent and ongoing new learning opportunities, students across our nation experienced drastic learning loss. Darlington County School District has made it a leading priority to work hard to recover the learning loss of our students.

Now that we are one year later after initial school closings and we are trying to get operations similar to the way things used to operate, how will we recover learning loss and begin closing achievement gaps with our students?

Where are students now with the skill levels? What have they mastered and truly understand?

What are the next steps/skills that need to be addressed for students' individual growth?

What strategies should be considered to accelerate student learning when trying to recover learning loss due to being out during COVID-19 school closures?

How will we monitor the progress of student performance to determine growth?

3. BENEFITS:

An Academic Enhancement Program will be developed to "assist" with the daily Tier One (general education for all students) instructional process. This program will provide additional time for learning and support for students to acquire new academic skills that they did not get during school closures or receive additional support for concepts not understood. It is the intent that the instruction within the Academic Enhancement Program will be very intentional, strategic, and personalized. Student progress will be monitored closely and frequently to inform teachers and administrators of the needed adjustments for the next steps. Most importantly, the

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Request to Conduct Research

development of our Academic Enhancement Program will not dictate anything new. Instead, there will be more intensive time with effective instructional best practices.

4. **STUDY COST:**

There is no cost for allowing the researcher to conduct this study.

5. **PARTICIPANT ENGAGEMENT:**

The participant population will consist of personnel at the district office, school leaders who are associated with the implementation of the Academic Enhancement Program, and students who attend this after-school program. The population will consist of all of the schools that contain grades K - 8 and offer the program during the study timeframe.

Participation in this study will not be voluntary, and participants will not have the option to withdraw. No incentive or compensation will be provided or offered for participants other than the stipends provided as normal by the district for this type of program.

6. **DATA COLLECTION:**

Our data collection cycles will need the following information for review: student performance, attendance, and demographic data will be extracted from PowerSchool, NWEA, and Frontline data warehouses into EXCEL files. All student-identifiable information (names, student IDs, etc. will be removed).

7. **DATA ANALYSIS:**

All stakeholders will have a major role to play in reviewing data. Teachers will have powerful conversations with their colleagues and school leadership during regular Professional Learning Community times. Teachers will also have meaningful conversations with their students to set goals and review progress to determine whether or not learning objectives have been accomplished. These types of discussions will make a significant impact on student success when conducted weekly and biweekly.

8. **DISSEMINATION:**

Because information is collected from data warehousing programs and because this is a district-wide research project, participation is involuntary.

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Request to Conduct Research

9. INFORMED CONSENT:

The researcher obtained the "informed consent" from the school district, which acts "in loco parentis (in the place of the parent)" to approve the use of student data to conduct the research study.

10. STUDY PROTOCOL:

All students will be provided with adequate materials and resources to ensure that there is a fair and level "playing field" that is being provided by the school district to ensure that all students have access to the same types of learning opportunities and experiences. The same types of instructional software will also be used to gather student performance data. This information will be used to assist in monitoring student growth targets and the success of meeting them. The use of instructional testing will aid in determining actual student growth by removing biased perceptions.

The information you provide for this research will be treated confidentially, and all data will be kept secure. All data will be digital and will be stored with a password-protected laptop, which will only be accessible to me. The research results will be reported as summary data only, and no individually identifiable information will be presented. To protect the participants, the names of the school and faculty will remain anonymous.

All information obtained in this study will be held in the strictest confidentiality. No students' names or identifiable information will be reported or shared in the findings of this study.

11. INSTITUTIONAL APPROVAL:

The researcher is including the "institutional approval" in a separate document with this request to conduct the research/study.

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Request to Conduct Research

References

Johnson, J. E., & Barr, N. B. (2021). Moving Hands-On Mechanical Engineering Experiences Online: Course Redesigns and Student Perspectives. *Online Learning*, *25*(1), 209–219. https://eric.ed.gov/?q=recover+learning+loss++covid+slide&pr=on&ft=on&id=EJ1287139

Shideler, A., Scaduto, E., & Wivell, G. B. (2020). One District's Strategy to Curb Summer Slide among Elementary School Students. *Journal for Leadership and Instruction*, *19*(2), 19–23. https://eric.ed.gov/?q=recover+learning+loss++covid+slide&pr=on&ft=on&id=EJ1283088

Wahlstrom, M. (2021, March 5). *How to catch students up in less time: 6 strategies to expedite learning recovery | EAB*. (n.d.). Eab.com. https://eab.com/insights/blogs/district-leadership/strategies-to-expedite-learning

Shideler, A., Scaduto, E., & Wivell, G. B. (2020). One District's Strategy to Curb Summer Slide among Elementary School Students. *Journal for Leadership and Instruction*, *19*(2), 19–23. https://eric.ed.gov/?q=recover+learning+loss++covid+slide&pr=on&ft=on&id=EJ1283088

Pier, L., Hough, H., Christian, M., Bookman, N., Wilkenfeld, B., & Miller, R. (2021, January 25). *PACE - COVID-19 and the Educational Equity Crisis*. Policy Analysis for California Education. https://edpolicyinca.org/newsroom/covid-19-and-educational-equity-crisis

Appendix C

After-School Program Implementation Timeline

Implementation Timeline also includes details about the data collection process:

	Mo	Tu	We	Th	Fr	**7/8 Weeks of Instruction** ** Students attend program for instruction*
Mar	4	5	6	7	8	March 4 – 14: Begin Selecting Teachers and Material Selection
	11	12	13	14	15	March 11 – 15: Student Enrollment *(Site Word/Word Study Inventory completed during regular day)*
	18	19	20	21	22	March 15 – 21: Student Enrollment and Teacher Training & Planning
		26		28		March 26: Students Take Pre-Assessments (Grades K - 8)
		2		4		**April 5 – April 9: Conversations about student observations with teachers of record*
Apr						**April 1 – 5: SPRING BREAK**
		16		18		
		20		22		April 19 – 22: Student Progress Checkpoint
		23		25		
May		30		2		**April 29 – 3: MAP Testing during regular school day*
		7		9		
		14		16		May 14 – 17: Student Progress Checkpoint

Provide Opportunities for Teacher Preparation and Planning

Date	ELA	Math
Thursday, March 14	**Grades K - 5:** Literacy Coach Preparation	
Friday, March 15 - Thursday, March 21	**Grades K - 2:** Data Collection (sight word/word study, running records), teacher prep and planning during the school day	
Monday, March 18	**Grades K - 8** : Teacher Preparation after school	**Grades K - 5**: Teacher and CT Preparation after school
Tuesday, March 19	**Grades 6 - 8:** Teacher Preparation after school	**Grades 6 - 8:** Teacher and CT Preparation after school
Wednesday, March 20	**Grades 3 - 8:** Teacher Data Review and Planning	**Grades K - 8:** Teacher and CT Data Review and Planning
Thursday, March 21	**Grades K - 8 :**Continue Teacher Data Review and Planning	**Grades K - 8:** Continue Teacher and CT Data Review and Planning

- March 18 – 20: Teachers participate in training sessions in preparation for the DCSD Academic Enhancement Program. This will include the following:
    - Pull student MAP data (Winter 2022, Fall 2022, Winter 2023, & Spring 2023)

    - Teachers will be trained with a common instructional framework (small grouping with effective transitions) so that instruction provided is systemic.
        - K – 8: Small Group Instruction
        - 9 – 12: Tools for *Teaching in the Block* (4X4)
    - Teachers will use MAP data to "Understand Their Students" that will be served and use this information to categorize the purpose for each student's purpose for attending the after school program (reinforcement or remediation).
    - Teachers will group the students based on the categories assigned then develop class loads. Grouping will assist teachers with creating a more personalized learning pathway that will be tailored to meet the students' learning needs.
- March 25 – 27: Students will be assessed to get a more up-to-date analysis of what the academic levels for performance are. This will (again) assist teachers with understanding better their students' specific needs.

Teacher conversations about student observations (between regular school day and after school teachers)

- April 1 – April 3: Conversations will be held between regular school day teachers of record and after-school teachers to share findings and provide more information that will be used to develop a very intentional plan that will chart each student's learning pathway through this 7-week program. These conversations can take place during Professional Learning Communities (PLCs) times, after-school designated meetings, departmental meetings, planning times during the school day, faculty meetings, etc.