

WHAT IMPACT DO SUMMER EXPERIENCES HAVE ON SUMMER LEARNING FOR
LOW- VERSUS HIGH-ACHIEVING AFRICAN AMERICAN STUDENTS?

By

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ABSTRACT

WHAT IMPACT DO SUMMER EXPERIENCES HAVE ON SUMMER LEARNING FOR LOW- VERSUS HIGH-ACHIEVING AFRICAN AMERICAN STUDENTS?

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This dissertation examined patterns of school-year academic growth and summer learning loss among low- and high-achieving African American students. After establishing the school-year and summer learning of low- versus high-achieving African American students, this study examined the summer experiences/activities of those students and asked if those experiences/activities had resulted in academic achievement.

My research used a mixed methods approach. The quantitative portion of my study was conducted to determine if students experienced academic growth over the school year and academic learning loss over the summer. The independent variables included various summer activities, socioeconomic status, and ethnicity. The dependent variables included reading and mathematics RIT scores from fall 2013, winter 2014, spring 2014, and fall 2014. Also, through quantitative analysis, I compared differences in the types of activities that students participated in over the summer, and which of those experiences contributed to students' academic success.

After identifying students who experienced summer learning losses and gains and what types of summer activities those students had been engaged in, a qualitative study was conducted on a random group of students from the low- and high-achieving groups. The purpose of the qualitative study was to understand why the summer experiences of some students resulted in academic gains while the summer experiences of others resulted in academic losses.

This mixed method study answered the following questions: (1) How much academic growth do low- versus high-achieving African American students experience during the school

year? (2) How does summer learning loss/growth affect low- versus high-achieving African American students? (3) What are the summer experiences/activities of low- versus high-achieving African American students? (4) Which summer experiences/activities contribute to summer learning for low- and high-achieving African American students?

This dissertation helps fill a gap in the existing literature about summer learning by focusing on low- versus high-achieving African American students and which summer experiences result in academic achievement.

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CHAPTER 1: INTRODUCTION

Last summer our family was fortunate to travel to Orlando, Florida, for a family vacation. This summer trip included my parents, my older sister, and my youngest brother and his family (wife and four children). My immediate family included my wife, Terri; our oldest son, Kobe (15 years old); our daughter, Taylor (6 years old); and our youngest daughter, Torie (3 years old). During our summer vacation our children had the opportunity to experience the intricacies of the airport, the experience of flying on an airplane, and the experience of traveling out-of-state. Additionally, our children were exposed to the Sunshine State of Florida, with its palm trees and humid summer climate, the culture of Spanish-speaking people, and the bonus of eating at a couple popular restaurants like “House of Blues” and “Bubba Gump’s.” More importantly, in the eyes of our children, we had the wonderful opportunity to spend one day at the world-famous Disney World. This summer vacation provided our children with many “first-time” opportunities and experiences. However, upon our return back to Michigan, our family summer vacation triggered further thoughts, including how this experience had been a great learning experience/opportunity for our children. It was a learning experience that contributed to their personal and cultural knowledge. I continued to think about how the summer experiences of our African American children may be different from the summer experiences of other African American students. Our family summer vacation made me want to know more about how summer experiences can contribute to the academic success of African American children.

Background

Summer fallback, summer slide, and summer achievement loss are all terms which represent the academic loss that students experience over the summer months. However, this summer academic loss may not apply to all children equally. “Children and youth who reside in

economically disadvantaged households and in low-resource, urban neighborhoods are more likely to lose ground in math and reading achievement over the summer than their higher income peers” (Terzian & Moore, 2009). In the attempt to increase the proficiency levels of their students, schools are implementing new reading initiatives, providing on-going professional development, hiring new energetic teachers, and/or disaggregating and analyzing student data, just to name a few. However, the best strategy to improve the academic levels of students may not be to focus on school-year learning but rather to focus on summer learning. Schools are looking to summer programs to address summer academic loss. According to one RAND report, good summer programs are essential to prevent students from losing the academic gains they made during the school year, and thus summer programs have an important role to play in closing any existing achievement gaps (RAND Corp., 2011).

Statement of the Problem

Here lies the problem: we now know that a major cause of academic loss occurs when students are on summer vacation. However, for schools to make the necessary academic improvements, they first must understand what is causing or contributing to the problem. According to Alexander, Entwisle, and Olson (2007), two-thirds of the ninth-grade reading achievement gap between black and white students and low- and high-SES students can be attributed to their time on summer vacation. Additionally, Alexander et al. (2001) stated that “the achievement gap across social lines [can] be expected to widen over time for reasons having nothing at all to do with schools” (p.172). Summer learning loss (SLL), summer slide, and summer fallback are all terms associated with the loss of academic knowledge that some students experience over summer vacation. This period of time often extends from early or mid-June to

late August or early September. Generally, summer break spans about ten to twelve weeks, and the existing achievement gap spans this time when students are not in school.

Learning is a continuous process that does not stop simply because the seasons have changed. As a result, schools are beginning to develop summer school programs or year-round school calendars to fill this out-of-school time. However, there are some students who demonstrate summer academic achievement gains even though they have not had these academic interventions. Therefore, further research is needed to understand what determinants contribute to summer learning loss and gains for students. More importantly, research is needed to determine what summer experiences contribute to the cognitive growth of African American students in particular.

Significance and Importance of Study

Other researchers have offered solutions to decrease the black/white or low-/high-SES achievement gaps, but they have yet to achieve the desired results. However, research has failed to look specifically at the summer achievements and experiences of African American students. Suggested solutions are often in the form of school-wide instructional initiatives, increased school funding, or the development of new leadership strategies. Still, summer learning loss remains unaddressed, and reformers have yet to achieve the desired results of significantly increasing the academic performance of African American students.

In this research, I explored the differences in summer experiences between low- and high-achieving African American students and the impact of those experiences on academic achievement. This research is necessary to understand the academic performance of African American students and which students make summer growth versus suffer summer loss. The purpose of this study was to identify the specific summer experiences of low- and high-achieving

African American students which result in cognitive growth. This would help schools target African American students who are underperforming academically and provide them with summer experiences to improve their academic performance. Other researchers, such as Heyns (1978) and Alexander (2007), have identified summer learning loss differences between black and white students, but they have not researched African American students exclusively and the differences that emerge between high- and low-performing African American students. This gap in the literature was the focus of this research.

Theoretical Framework

A few years ago, I listened to an African American male comedian joke about why he did not achieve in school. His reason for failure was standardized achievement tests. He explained that he failed these achievement tests because his school kept asking him the wrong questions like, “What year did Beethoven compose the Ninth Symphony?” The comedian painted a clear picture of his school days from failing these tests and, consequently, failing in school. However, the comedian provided a solution to his failure. He said, “If they would have asked me questions like what year did Marvin Gaye write ‘*What’s Goin’ On*?....I know that, and I know that I would have done great with those questions and on those tests and in school!” What this comedian was joking about was the way that personal and cultural differences can affect academic achievement. This is significant because of the importance of cultural capital to academic success. My research is based on two theoretical areas: John Dewey’s theory of experiential education (1902, 1938) and the theory of cultural capital developed by Pierre Bourdieu (1986), Annette Lareau (1987, 2011), and Tara Yosso (2005). I argue that academic achievement is the partial result of continuous learning through accessing and building cultural capital.

Cultural capital is known as the way students talk, walk, or socialize. Cultural capital can also include student values, mannerisms, and knowledge. In general, cultural capital is built through our lived experiences, and it is valuable in promoting academic achievement. The story of the African American comedian above is just one example of how our personal or cultural experiences can translate into academic achievement. As Bourdieu (1986) has argued, “The notion cultural capital makes it possible to explain the unequal scholastic achievement of children originating from different social classes by relating academic success” (p. 243). However, Lareau (1987) has also pointed out that cultural capital is valued differently by schools and society. Taken together, theorists thus agree that cultural capital has academic value and that this value is recognized differently. Therefore, access to the “valued” cultural capital is essential and we must recognize and appreciate the cultural capital of others.

Schools provide access to cultural capital for African American students who attend when school when it is in session. Burkham (2004) stated, “During the school year, school may provide all children with comparable cultural knowledge and skills, compensating for some children’s lack of cultural capital at home” (p. 5). Tara Yosso (2005) argued similarly, “The knowledge of the upper and middle classes are considered capital valuable to a hierarchical society. If one is not born into a family whose knowledge is already deemed valuable, one could then access the knowledge of the middle and upper class and the potential for social mobility through formal schooling” (p. 70). Moreover, Katsillis and Robinson (1990) argued, “The cultural capital transmitted and rewarded by the educational system reflects the culture of the dominant class. To acquire cultural capital, the student must have the capacity to receive and decode it” (p. 270). The importance of this is that schools give access to the “accepted” forms of cultural capital. More importantly, schools serve in the capacity of interpreting and decoding

this capital for their students. The result of having access to and understanding this capital is academic achievement.

Summer does not provide the same experiences or access to building capital for every African American student. The literature gives many reasons why summer is so unequal for students, including the following: socioeconomic status, environment, families, and student efficacy.. Authors such Lareau, Khalifa, and Bourdieu recognize that some students have unequal summer learning opportunities. Lareau (1987) found that “ethnographic research has shown that classroom learning is reflexive and interactive and that language in the classroom draws unevenly from the sociolinguistic experiences of children at home” (p. 73). Khalifa (2010) wrote, “Cultural experiences – such as museum visits or exposure to traditional music and arts, or family traditions – of the dominant group differ vastly from those of poor and minority groups” (p. 621). Similarly, Bourdieu argued, “Some communities are culturally wealthy while others are culturally poor” (Yosso, 2005, p. 76). However, such positions have a deficit way of thinking of summer for African American students. As argued by Yosso (2005), the experiences of some African American students go unrecognized by schools and society and, therefore, summer academic loss occurs.

Learning is a continuous process. Learning does not stop just because school is out for the summer. John Dewey (1938) was one early thinker who developed this reasoning through his theory of experiences and its relation to education. Dewey (1938) argued that “learning is a continuous process, living through the continuity and interaction of our experiences.” This has been the mission of schools today, which aim to interest students in the curriculum so that the students succeed academically. Additionally, Dewey (1938) argued that our experiences need to be “meaningful.” These “meaningful” experiences can help students make the classroom

curriculum relevant, resulting in student achievement. Therefore, if learning is a continuous process, and if the learning experience during the summer remains meaningful for students, students will avoid summer learning loss.

We build capital from the “meaningful” experiences we have. These “meaningful” learning opportunities are learning experiences that are connected to school learning, which result in student achievement. Dewey (1938) realized that there are learning experiences which are “mis-educative.” “Mis-educative” learning experiences are those experiences that are stagnant, or are not connected to school learning, and therefore do not result in academic achievement. Lareau (2011) argued that upper- and middle-SES families learned to navigate the system to make the rules work in their favor, building cultural capital. Their experiences trained them in the “rules of the game” (Lareau, 2011, p. 6). Yosso (2005) challenged Dewey’s term “meaningful” with the question, “Whose knowledge counts and whose knowledge is discounted?” In general, there seem to be two ways to provide “meaningful” experiences for African American students over the summer: connect their summer learning to school, giving students continuous access, or connect school learning to their summer experiences.

As demonstrated, student achievement is the result of access to capital and continuous learning. African American students are generally successful during the school year because they have access to the necessary cultural capital to do well. However, summer learning loss occurs because that access is on summer break. More importantly, African American students still build cultural capital over summer vacation through their personal experiences and activities. However, these experiences and activities often do not necessarily result in academic achievement because these experiences and activities may not be recognized by schools and society. Therefore, summer learning loss can be avoided for African American students by

connecting their summer experiences to school learning or by connecting their school learning to their summer experiences.

Purpose

The purpose of this study was to determine if low- versus high-achieving African American students experience academic growth during the school year similarly, and if low- versus high-achieving African American students experience academic summer loss differently. It was also the purpose of this study to describe the differences between low- and high-achieving African American students with regard to their summer experiences/activities and if any of their experiences/activities do result in academic growth.

Research Questions

This study explored the summer experiences of low- versus high-achieving African American students and the impact of those experiences on student achievement. To accomplish this goal, my research was guided by the following questions:

1. How does school-year learning loss/growth affect low- versus high-achieving African American students?
2. How does summer learning loss/growth affect low- versus high-achieving African American students?
3. What are the summer experiences/activities of low- versus high-achieving African American students?
4. Which summer experiences/activities contribute to summer learning for low- and high-achieving African American students?

Delimitations

This study was limited to only African American students in grades six, seven, and eight. The African American student population was chosen because this student group is often left out of the literature on summer learning loss. Additionally, the middle school level was chosen in this district because it serves as the only feeder school for this inner-city school district. Working with this middle school gave me a diverse group of African American students from various socioeconomic backgrounds and a wide range of academic achievement levels.

Definition of Terms

African American Students. Students who self-identify themselves as black or part of the African American community, or who have parents who identified their child as the same through the school's registration process.

High-Achieving African American Students. African American students with a grade point average at or above 2.7.

Low-Achieving African American Students. African American students with a grade point average below a 2.7.

Summer Learning Loss. Students who demonstrated academic loss on their NWEA MAP test, from spring, 2013, to fall, 2013.

Summer Learning Growth. Students who demonstrated academic growth on their NWEA MAP test, from spring, 2013, to fall, 2013.

School Year Loss. Students who demonstrated academic loss on their NWEA MAP test, from fall, 2013, to spring, 2014.

School Year Growth. Students who demonstrated academic growth on their NWEA MAP test, from fall, 2013, to spring, 2014.

Organization of the Study

The remainder of my dissertation is organized into five chapters, references, and appendices. Chapter Two reviews the literature relating to summer learning loss and its impact on student achievement. Chapter Three describes the methodology of the study. The survey instrument and interview questions are included in the appendices. Chapter Four reviews the data collection procedures and presents and analyzes the data that were collected. Last, Chapter Five contains a thorough discussion of the findings as they relate to the literature from Chapter Two, recommendations for further research, implications, and conclusion. The study concludes with references and appendices.

CHAPTER 2: LITERATURE REVIEW

Public education is under great pressure to improve student achievement. Educators are continuously looking for strategic ways to do this. For many educational leaders, when student achievement is mentioned their first thought is the performance of students in school. However, as Dewey (1902, 1938) implied, learning is a continuous process, and therefore, school leaders need to look outside school buildings and beyond school calendars to determine what is impacting student achievement. It was during a lecture at Michigan State University (2011) that Dr. Ronald Ferguson articulated the similar learning rates of black and white students during the school year. As an educational leader aiming to make improvements in academic achievement, I understand the importance of making decisions based on data. This study looked at the school-year learning, summer learning, and summer experiences of low- and high-achieving African American students. This analysis can help us determine where African American students are achieving and where schools should focus their resources to make additional improvements.

The following sections of this literature review explore the important themes and research on summer learning loss. In order to understand fully summer learning loss and the impact of summer experiences on student achievement, I review and analyze the literature in the following areas: (1) the history of summer vacation, (2) early research results regarding summer learning loss, (3) student achievement during the school year, (4) summer learning loss versus summer learning gains, (5) independent variables of summer learning loss, and (6) gaps in the literature connecting summer learning to school-year learning.

History of Summer Vacation

The traditional remedy for summer learning loss has been the elimination or reduction of summer vacation or the restructuring of our school calendar. Summer vacation has been part of

our education calendar since the nineteenth century but necessary change has now been recognized by educators, researchers, and policy makers. President Obama said, “We can no longer afford an academic calendar designed when America was a nation of farmers who needed their children at home plowing the land at the end of each day. That calendar may have once made sense, but today, it puts us at a competitive disadvantage. Our children spend over a month less in school than children in South Korea. That is no way to prepare them for a twenty-first century economy. That is why I’m calling for us not only to expand effective after-school programs, but to rethink the school day to incorporate more time – whether during the summer or through expanded-day programs for children who need it” (Carey, 2009). However, before any changes are made it is necessary to understand the history of our current school calendar and summer vacation. Understanding the history of summer vacation with current research on summer learning loss is necessary to determine how summer can be used to improve academic achievement.

In her article “History of the Summer Vacation,” Rachael Stark asked the question, “Why does the American school year start in September and end in June?” Is this because the school calendar in the United States was built around an agricultural society? It is true that children living on farms were expected to help with planting in the spring and harvesting in the fall, and, therefore, rural schools were in session for only about five or six months per year (see also Cooper et al. 2003). What is interesting, however, is that rural school students were more likely to attend school over the summer months, and to have the spring and fall off in order to help on the farm.

Urban schools, on the other hand, previously operated year-round, with short breaks between quarters (Explainer, 2007). Urban students regularly attended as many as 48 weeks of

school per year, with one break per quarter. In 1840, the school systems in Buffalo, Detroit, and Philadelphia were open between 251 and 260 days per year (Carey, 2009). In 1842, Detroit's academic year lasted approximately 260 days, New York's 245 days, and Chicago's 240 days (Explainer, 2007). New York students attended school nearly the whole year except for three weeks in August (Explainer, 2007). But, interestingly, "since education was not compulsory, attendance was often sparse; in Detroit in 1843, for example, only 30% of enrolled students attended year-round" (Time Magazine, 2008). Urban school children were likely to take breaks in July or August, when wealthier families would desert the city for cooler climates (Heese, 2013).

The 180-day school calendar that we currently operate under was not developed until the twentieth century. Horace Mann moved to merge the two calendars, out of concern that rural schooling was insufficiently educating children and urban schools were burning students out (which partially explained their poor school attendance rates) (Explainer, 2007). A summer break from school was thus adopted to address school building ventilation concerns, to prevent disease from spreading, to provide time for wealthier urbanites to vacation, to provide a break or rest for teachers, and to coincide with the agrarian calendar.

But why do we still operate under this agricultural school calendar, when presently only about 3% of U.S. families are working in agriculture, and when we know that students are losing academic knowledge during summer break? To make academic improvements, schools must continue take a hard look at the school calendar and the concept of summer learning loss. But, more importantly, summer break needs to be looked at strategically to provide students access to ongoing learning opportunities. In short, summer can be used to supplement the academic school year and to support academic experiences.

Early Research on Summer Learning Loss

The study of “Summer Learning Loss” (SLL) is not a new concept when trying to pinpoint the reasons for the academic achievement gap between black and white students. Research on this topic is more than one hundred years old. William F. White is one of the first known researchers to attempt to determine if students lost academic achievement over summer vacation, with many others following. This section summarizes some of the earliest research on SLL are included to understand better this initial research. The summaries include the researcher(s), the year of the research, the students tested and tests used, and the conclusions of achievement gains or losses. Knowing the methodologies and conclusions of previous research can help shape decisions for further research in this area.

White (1906) is credited as being the first to study the effects of learning loss over the summer. His 1906 study attempted to answer the question, “How much arithmetic does a pupil forget in the summer?” (White, p. 185). His research tested the computation skills of seven second- and seventh-grade students, using a test that was given three times during the school year: in June, at the start of school (in September), and a week or two after the start of school. White concluded that students lost computation speed, but little in the area of accuracy.

Brueckner and Distad (1924) researched the summer vacation effect on first grade students in the area of reading. Participants included approximately 38 students from four different schools (315 students total), and from 12 classrooms. Additionally, Brueckner and Distad used two tests, the Minneapolis Primary Reading Test and the Haggerty Reading Exam, which were administered during the spring and the first week of fall. They concluded that “the median scores for each grade were lower in September than they were in June” (p. 699).

Elder's (1927) study researched the effect of summer vacation on the silent-reading ability of third-, fourth-, fifth-, and sixth-grade students. Using the Monroe Standardized Silent Reading Test, 203 students were tested. Form 2 of this test was given to the students in May, 1926, and Form 1 was given to the same students in September, 1926. Elder found reading gains for some of the better readers, and losses for some of the poorer readers. Additionally, he stated that the silent reading abilities of students were less likely to be homogeneous at the beginning of the school year (September), compared to the end of the school year (May).

Nelson (1928) adopted a different approach, attempting to understand the time it took to regain summer loss. This was different from previous studies on summer learning loss. Nelson explored the subjects of arithmetic and spelling, giving the Courtis Standard Research Arithmetic Tests-Series B (grades 7B and 5A) and the Morrison-McCall Spelling Scale (grades 7B, 5A, and 3A) at the close of the school year in 1926, again in September 1926, and every two weeks for the following six weeks. The tests were given again prior to Christmas break, which occurred approximately fifteen weeks after the start of the school year. Involved in the study were 133 students. Nelson concluded that the scores significantly increased from the fall to the winter. Furthermore, "grade 7B had regained the spring level of achievement in speed in solving arithmetic problems involving only the fundamental process at the end of four weeks following the opening of school in the fall" (p. 307).

Bruene (1928) also researched the effects of summer vacation on academic achievement. Specifically, she asked if students lose knowledge over the summer and if summer vacation affects children differently. Bruene used the Stanford Achievement Test, Form A, with fourth- (15), fifth- (26), and sixth-grade (28) students (69 total). These achievement tests, in the areas of reading, arithmetic fundamentals, arithmetic reasoning, and spelling, were given in May, 1927,

and then again in September of the same year. Her data showed summer gains in reading and losses in math. Interestingly, Bruene (1928) concluded by indicating that further research was necessary, asking the question, “What activities, if any, did these children engage in during the summer which called for exercise of reading and arithmetic abilities? If any, to what extent? Such information would help much in educational guidance” (p. 314).

Kolberg (1934) continued the summer learning loss research by asking the question, “How much does a pupil forget during the summer months?” (p.281). He tested seventh grade students in the subject of history, in May, 1933, and then again in September, 1933. The tests used were The Terman Group Test of Mental Ability, for the mental ratings, and The Van Wagenen American History Scales –Information Scale S₂, to measure retention. Interestingly, Kolberg attempted to draw a correlation between pupils’ intelligence and his or her retention between May and September. He concluded that students with higher intelligence appeared to forget as much as the other students. Also, he found that students with lower intelligence made similar academic gains compared to the other students. In short, the “retention ability on tasks which can be accomplished with a great degree of ease cannot be predicted even though the mental rating of a pupil is known” (p. 283).

Cook (1942) conducted research in order to determine if primary-grade students retain the fundamentals after summer vacation. Her participants included first- and second-grade students (52 total) at the Laboratory School at Mankato State Teachers College. The Primary Reading Test of the Metropolitan Achievement Test was given in May and again in September. The study concluded that many students in grades II and III in the fall did not retain their skills in writing and in the use of numbers. Additionally, these primary grade students were more likely to exhibit a decline in their ability to recall information.

Bender (1944) researched the retention of experiences by school children. He used subject areas (arithmetic fundamentals, arithmetic reasoning, composition, word knowledge, reading, spelling, and intelligence) and standardized tests (timed) to determine the amount of summer learning loss students experienced when school closed in May and reopened in September. The test data were secured and analyzed in four phases, with Bender concluding that “there is practically no relationship between the rank of a pupil in gains or losses, and his or her rank in intelligence. In other words, losses and gains in achievement in school subjects during the summer vacation are conditioned by factors other than intelligence” (p. 61).

Beggs and Hieronymus (1968) sought to learn about the growth rate of students in the third through sixth grades throughout the school year and during the summer. They used the Iowa Basic Skills Testing Program, testing students in May and then again in September. The tested areas included Vocabulary-Reading, Language, Work Study, and Arithmetic. The school year testing was done in the phases of grades 3-4, 4-5, and 5-6, and the summer testing was completed in the grades 5-6 phase. There were 2,160 students who were tested for the summer portion of the study. In conclusion, Beggs and Hieronymus (1968) found “consistent and convincing” losses in language and arithmetic. During the school year, their study suggested a gain of approximately one-tenth yearly growth each month.

Soar and Soar (1969) researched the question of how summer growth compared to school-year growth. They conducted a two-year study of fifth- and sixth-grade students (189 total), testing them in the content areas of reading and mathematics in fall 1962, spring 1963, fall 1963, and spring 1964, using the Iowa Basic Skills Test. They reported gains in all tested areas. Interestingly, Soar and Soar (1969) found that “the variable associated with the summer growth suggested that there might be pupils who, during the summer grew as much as, or more than, in

either school year” (p. 584). Further research is needed to address the question of why some students grow over the summer more than they do during the school year.

Hayes and Judith (1969) conducted research around the differences in the rate of learning between white and non-white students during non-school periods. The study collected reading achievement data from 77 elementary schools, including approximately 370,000 second- through sixth-grade students in New York City. The achievement tests for the 1965-66 school year were given in early October and then again in early May. For the 1966-67 school- year, these achievements tests were administered in September and April. Hayes and Grether used three different forms when testing the students: one form for grade 2, one form for grades 3 and 4, and one form for grades 5 and 6. These tests were created by Harcourt Brace and World. Hayes and Grether (1969) summarized their findings by saying, “The differential progress made during the four summers between 2nd and 6th grades accounts for upwards of 80 percent of differences between the economically advantaged all-white schools and the all-black and Puerto Rican ghetto schools” (p. 7).

Mousley (1973) attempted to answer whether or not children regress over the summer vacation. His study tested 64 students across three third-grade classrooms in June of 1972 and again in September of 1972. Mousley gave the Stanford Reading Achievement test, testing reading vocabulary, reading comprehension, and total reading ability. Mousley concluded that his research did not support summer learning loss in the area of reading over the 85 vacation days. Further research needed includes a comparison of summer vacation (three months) to other, shorter breaks throughout the school year.

Early Research Summary

As demonstrated from the early research on summer learning loss, there are many similarities, differences, and, more importantly, many more areas to explore on the topic. The most important commonality among these researchers was that they were all trying to determine if students experienced academic loss while on summer break. These researchers primarily focused on the elementary grades (K-8) in the areas of reading and mathematics. Additionally, the methodologies of determining summer learning loss were similar across these studies by testing in the spring, after students had received a full year of learning, and then again in the fall, after students returned to school from summer break. The summer learning loss or gain was calculated by taking the difference between the students' fall achievement scores and their previous spring achievement scores.

The biggest differences among these early studies were the number of students tested and the results, academic gain or loss. The number of students included in each of the studies ranged from only 14 students to 370,000 students. However, the majority of the studies were relatively small, testing only two to three hundred students. The most glaring difference between the early studies was the results. The researchers were divided on whether students experienced summer learning loss or gain in the areas of reading and mathematics.

Last, in determining the further research that is needed, gaps in the research point to the need to explore the similarities and differences of summer learning loss for low- versus high-achieving African American students in particular. This focus was missing from the SLL research until 1978, when Barbara Heyns conducted a study examining the relationship between academic achievement and socioeconomic status.

Barbara Heyns (1978) – The Effects of Schooling

Arguably one of the most cited researchers on summer learning loss, Heyns (1978) conducted a study about the effects of schooling and summer learning loss. Different from the previous researchers on summer learning loss, Heyns (1978) sought to measure the effects of schooling by comparing students' school-year learning to their summer learning. More importantly, Heyns' (1978) research attempted to understand how school-year learning and summer learning affected black and white students and low- and high-SES students differently. Heyns' (1978) book *Summer Learning and the Effects of Schooling* is divided into two parts: Part 1 – Schooling, Socioeconomic Status, and Achievement, and Part 2 – Socioeconomic Status and Achievement in the Absence of Schooling.

Heyns' (1978) research involved 2,978 students in the Atlanta schools. Similar to the early researchers, Heyns sought to calculate summer learning loss by giving a verbal achievement test on word knowledge to students in the spring and then again in the fall when the students returned to school. Additionally, Heyns' research differed from the earlier studies because she also calculated the amount of learning that took place during the school year. She did this by subtracting the students' spring scores from their fall scores within the academic school year. The test that she used was the Metropolitan Achievement Test (MAT). Heyns tested students at the start of fifth grade, at the end of fifth grade, at the beginning of sixth grade, and at the end of sixth grade to determine the amount of learning that occurred during the school year versus the amount of learning that took place over the summer.

In Part I, Heyns (1978) sought to answer the question, "What are the effects of schooling on the cognitive growth of children and what role does schooling play in the creation or reduction of socioeconomic inequality in achievement?" (p.17). As previously stated, Heyns

attempted to answer her research question by calculating student achievement during the school year. She concluded Part I by writing that “the data clearly support the contention that schooling makes a substantial contribution to cognitive growth” (p.187). More importantly, “During the school year, a substantial number of low-class children learn at rates equal to those of middle-class children” (p. 52). In addition, she found that the higher-SES students had faster learning rates during the school year and over the summer break. Lower-SES students lost learning over the summer break. My research seeks to verify some of Heyns’ findings. However, my study differs from Heyns because it focused solely on low- versus high-achieving African American students.

In Part II, Heyns (1978) explored the summer experiences of students and how those experiences may result in educational gains. Heyns sought to answer the following two questions: 1) How are summer activities patterned by social class and race? 2) What effects do such activities have on achievement? (p.18). In this section, Heyns (1978) concluded that “the single summer activity that is most strongly and consistently related to summer learning is reading” (p. 161). Additionally, Heyns (1978) found that some summer activities “tended to promote learning and to promote it at rates commensurate with those observed during the school year” (p. 18). However, she also concluded that these achievement gains were not independent of a student’s socioeconomic status, and part of her study compared the summer experiences of white and black students. My research also analyzes the summer experiences of students but focused on low- and high-achieving African American students.

Important to Heyns’ study also was the learning growth of children during the school year. This was one of the significant differences between her study and previous research. From her research we know that school makes a difference for most students. My study will further

explored the school year learning and summer learning differences for low- and high-achieving students. This has not been done in previous research studies. If growth in learning during the school year is similar across socioeconomic status and ethnicity groups then studying summer experiences of these individual groups becomes essential. Moreover, if there are students who are making achievement gains over the summer, then their summer activities need to be explored further.

The Baltimore School Study (1982)

The Baltimore Beginning School Study (BBSS) continued to build on the work done by Heyns (1978) and her research on summer learning loss. The BBSS was a remarkable twenty-year longitudinal study conducted from 1982 until 2002. The researchers, Alexander, Entwisle, and Olson, sought to study the consequences of summer learning differences across race and family socioeconomic status. Alexander et al. (2007) linked the achievement gap phenomenon to summer learning loss. More importantly, they recognized the truth in Dewey's (1902, 1938) thinking that "learning is a continuous process" and that summer learning loss is connected to the summer learning experiences of children. However, Alexander et al. (2007) also realized that children's summer learning experiences may depend on their family's resources. Like Heyns (1978), the BBSS explored summer learning along the lines of race and socioeconomic status which went much deeper than the summer learning loss research of the early twentieth century.

The BBSS began in the fall of 1982 with 790 study participants (entering first-graders) randomly selected from 20 elementary schools in the Baltimore Public School System. These 20 elementary schools were targeted for the study due to their racial composition and socioeconomic status. Summer achievement scores were calculated by testing students in the spring (May) and then again in the fall (October). This testing schedule continued through the

1987-88 school year using the California Achievement Test (CAT) in the areas of Reading (CAT-R) and Mathematics (CAT-M). However, while the students were in grades 7 and 8, only the spring CAT was given. The researchers calculated summer learning gains or losses by subtracting students' previous spring CAT scores from their fall scores, and they calculated school year learning by subtracting the student's fall score from his or her spring score. This was the same method that Heyns (1978) and all of the previous researchers on summer learning loss used. Additionally, Alexander et al. continued the testing of the participants of the BBSS when they were in ninth grade, testing approximately 75% of the participants using the CAT-R and CAT-M. Therefore, Alexander et al. had student achievement data for students from the first grade through ninth grade. The four achievement domains used in the analysis were "fall of 1st grade score, cumulative school-year gain over the elementary grades, cumulative summer gain over the elementary grades, and total gain over years 6 through 9" (Alexander et. al., 2007, p. 169). However, the gap with the BBSS was their failure to determine how students were achieving over the summer. This is what was uniquely found in Heyns' (1978) study and this is what was performed in my research study.

From their research, Alexander et al. (2007) argued that "disadvantaged children come closer to keeping up during the school year than they do during the summer months" (p. 20). They supported their argument through the BBSS data, comparing winter and summer learning across socioeconomic lines. Alexander et al. (2007) summarized their data nicely in graphs, comparing the school-year and summer gains of advantaged students with those of disadvantaged students. The graphs show that both advantaged and disadvantaged students demonstrated nearly identical achievement gains during the school year, but significant differences during the summer, when the advantaged students demonstrated gains and the

disadvantaged student's demonstrated losses. The authors concluded that "these early out-of-school summer learning differences, in turn, substantially account for achievement-related differences by family socioeconomic status" (p. 167, 173). Here, though, Alexander et al. missed the opportunity to propose further research examining the experiences of low-SES students and how schools can provide access to better learning opportunities.

Relevant Research on Summer Learning Loss

Heyns (1978) set the standard for research surrounding summer learning loss. Her research on the effects of schooling found that schools do make a difference for socioeconomically disadvantaged children. This research continued through the work done by Alexander, Entwisle, and Olson and their Baltimore Beginning School Study. Heyns and the BBSS research attempted to break down the reasons for summer learning loss. This was quite different from any of the previous research done on summer learning loss which attempted to establish summer learning loss only by comparing the fall scores of students with their spring scores from the previous school year. More recently, Alexander, Entwisle, and Olson have continued to build on their summer learning loss research by further exploring the reasons why students of color and low-SES students experience summer loss.

Entwisle and Alexander (1992) – Summer Setback

Entwisle and Alexander (1992) have continued to dig deeper into the issue of summer learning loss with their research entitled "Summer Setback: Race, Poverty, School Composition, and Mathematics Achievement in the First Two Years of School." Through their previously collected data in the BBSS, Entwisle and Alexander (1992) elucidate the problem of the existing achievement gaps between black and white students and low- and high-SES students as measured through their performance on standardized tests in mathematics. Additionally, when

standardized test scores are analyzed, Entwisle and Alexander found that disadvantaged children experience academic learning loss over the summer compared to advantaged students, but they achieve similarly during the school year. These findings are consistent with Heyns' (1978) results and the earlier BBSS results.

Entwisle and Alexander (1992) argued that a child's home-based disadvantages contribute to his or her lack of academic success, starting in the early years of schooling. They support their argument through the sketching of key concepts such as winter learning and summer learning. Additionally, they support these key concepts through their data collected in the BBSS. That study, they observed differences between advantaged students and disadvantaged ones, stating, "We tracked the season-by-season progress of a cohort of Baltimore youngsters from the time they started first grade in the fall of 1982 into the fall of their third year of school; we looked specifically for family and school factors that contributed to the increasing differences in mathematics performance between African-American and white students that emerged over this period. When they started school, the two groups' standardized test averages were only a few points apart. Over the ensuing 24 months, however, this gap increased to half a standard deviation when compared to the fall 1982 distribution" (p. 73). Entwisle and Alexander (1992) concluded their research by declaring that the difference in children's mathematics achievement is associated with family socioeconomic status.

Entwisle and Alexander (1994) – Winter Setback

Two years later, Entwisle and Alexander (1994) extended their research by exploring a student's school-year learning or "winter learning." Their continuation of research on school-year learning sought to explore how the racial composition of schools affects the academic achievement of students. The significant contribution of their study was its attempt to

understand better the achievement gaps that exist between black and white students and low- and high-SES students.

Entwisle and Alexander (1994) started by developing the concepts of “winter” versus “summer” learning. Winter learning is known as the learning that takes place during the school year, when school is open. Winter learning is calculated by subtracting a student’s spring achievement score from his or her fall achievement score. Summer learning was articulated by Entwisle and Alexander (1994) as the academic growth that students experience over summer break, when school is not in session. Summer learning is calculated by subtracting a student’s fall academic achievement score from his or her previous spring achievement score. Entwisle and Alexander (1994) found this calculation necessary in order to “separate the influences of family, neighborhood, and school” (pp. 447-448).

However, Entwisle and Alexander (1994) argued that “students in integrated schools, progress in winter (when schools are open) at a slower pace than would be expected” (p. 454). This is a different conclusion from what Entwisle and Alexander (1992) found on “winter” learning in the area of mathematics. The author’s findings thus suggested that reading is affected differently than mathematics in integrated schools. Entwisle and Alexander (1994) supported their position by identifying research conducted by Wortman and Bryant (1985), Cahan and Cohen (1989), and Jordan, Huttenlocher, and Levine (1992), all of which concluded that “learning to read is sensitive to social class and ethnic differences in the features of language” (p. 455). Needless to say, more research is needed around “winter” learning and how students’ color and socioeconomic status affect academic progress during the school year. My study explored the “winter” learning low- and high-achieving African American.

Cooper et al. (1996) – The Effects of Summer Vacation on Achievement Test Scores

Researchers such as Cooper, Nye, Charlton, Lindsay, and Greathouse (1996) continued the argument that summer vacation negatively affects student achievement. Cooper et al. (1996) identified the problem as residing with the school calendar and the lack of days that American students are in school compared to students in other countries. Their research approach consisted of a review of 39 studies on summer learning loss. Additionally, they took a meta-analytic approach with the 13 most recent studies on summer learning loss at the time. Cooper et al. (1996) found that mathematics suffered more than reading, lower SES students were more affected than students from more affluent families, and, most interestingly, summer loss was equal to approximately “one month on a grade-level equivalent scale or one tenth of a standard deviation relative to spring test scores” (p. 264).

Downey, van Hoppel, and Bloh (2004) – Are Schools the Great Equalizer?

During a period in education when education reforms such as No Child Left Behind were taking hold, researchers Downey et al. (2004) continued to argue that schools serve as a great equalizer. This has been a consistent conclusion from the research articulated above. However, it was through the recognition that children begin school at different skill levels due to the different exposure they receive at home and in their neighborhoods that set the research of Downey et al. apart from the previous research. The central claim of Downey et al. was that the achievement gap grows faster over the summer than during the school year. They supported their claim through seasonal academic comparisons, discussions of the variations between schools, and, more importantly, non-school environments and out-of-school learning versus in-school learning opportunities.

Additionally, the authors used data from the Early Childhood Longitudinal Study – Kindergarten Cohort of 1998-99, a national survey which included approximately 20,000 children in 1,000 schools. Downey et al. (2004) concluded that “students learn at much more equal rates when school is in session than when it is not” and they suggested “improving disadvantaged children’s non-school environments or increasing their exposure to school (through summer school or increased school days per year)” (p. 614).

Alexander, Entwisle, and Olson (2007) – Lasting Consequences of the Summer Learning Gap

Alexander et al. (2007) continued to explore summer learning loss and to narrow their research to include the differences in out-of-school summer learning opportunities during students’ early years. This research was a continuation of the 2004 work of Downey et al., connecting summer learning differences and a family’s socioeconomic status. The central claim of Alexander et al. was that schools play a compensatory role in children’s cognitive development, offsetting the disadvantages in their home environments and neighborhoods. The authors supported this claim by developing the concepts of summer learning differences and linking these differences with differences in families’ socioeconomic status. Additionally, Alexander et al. (2007) used data from the BBBS to support further the argument that “prior to high school, the achievement gap by family SES traces substantially to unequal learning opportunities in children’s home and community environments” (p. 168). The authors concluded “how out-of-school learning during the elementary grades is linked to the year 9 achievement gap by family SES: a gap that, in turn, separates college track youth from non-college track youth, and that distinguishes those who fall off the path to high school completion from those who attend four year colleges” (p. 173).

Independent Variables of Summer Learning Loss

When studying summer learning loss, researchers have continuously tried to narrow their focus to determine who or what is affected by summer vacation. Content area and grade level, socioeconomic status, ethnicity, and neighborhood effects have been the major independent variables discussed in the literature on summer learning. Below is a discussion of those independent variables.

Content Areas and Grade Levels

Much of the research has concluded that summer learning loss is not confined to any particular grades or specific content areas. Summer learning loss can be seen throughout grades K-12. Regarding content area, much of the research has focused on reading and mathematics. Heyns (1978) found that the amount students read over the summer was most closely related to summer achievement gains. Entwisle and Alexander (1992) found that loss in mathematics knowledge was due to the limited amount of mathematics opportunities available to students over the summer. This means that there is a need to research further how students are spending their summer vacation because we know that some students do make summer academic gains. My research explored the summer activities of low- versus high-achieving African American students to determine which summer activities are making a difference academically.

Low- Versus High-SES Students

The literature is clear. A student's SES level is a major contributor to summer learning loss. Heyns (1978) found that summer was more beneficial for advantaged students than less advantaged ones. Similarly, Entwisle and Alexander (1992, 1994) concluded, "For children in poverty, every summer meant a loss; for children not in poverty, every summer meant a gain" (p. 82). Additionally, Alexander et al. (2007) found that the achievement gap during a child's

elementary years can be attributed to the differences in learning experiences that are associated with a family's socioeconomic status. My research looked at the socioeconomic status of low- and high-achieving African American students, to determine if these SES findings agree with or differ from the existing literature. However, this study looked at the SES of only low- and high-achieving African American students.

Black Versus White Students

Entwisle and Alexander (1992) sought to explore the effects of the racial composition of schools when researching summer learning. They concluded that during the school year, African Americans progress at a slower rate in an integrated school compared to white children. However, Downey et al. (2004) found that "race, gender, and SES explain less than 10 percent of the total inequality in learning rates" (p. 613). Aside from these two cases, the research has mostly focused on SES rather than ethnicity. Entwisle and Alexander (1992) recognized that a higher proportion of African Americans than whites are disadvantaged economically, and that a family's low socioeconomic status translates into fewer learning opportunities (p.72). My study differs from Entwisle and Alexander (1992) because I studied the summer learning loss of African American students, comparing summer loss within this ethnic group, instead of comparing the summer loss across racial lines. This is a gap in the literature that my study seeks to fill.

Neighborhood Effects

Downey et al. (2004) developed the concept of "neighborhood effects" in their article "Are Schools the Great Equalizer?" They understood that learning is a continuous process, and they compared in-school and out-of-school learning opportunities. Interestingly, they found that a student's in-school learning opportunities only account for approximately 13% of his or her

day. Additionally, out-of-school learning is the primary source of learning for children before they enter preschool or kindergarten. Therefore, out-of-school learning, which differs greatly for different groups of students, is the dominant source of learning. Similarly, Alexander et al. (2007) found that unequal learning opportunities in a child's home and community contribute to the achievement gap and summer learning loss. My study looked to add to the discussion of the summer learning experiences that are being valued versus those that are not accepted. Knowing the summer learning opportunities of students and grasping how those experiences result in academic achievement is a significant contribution to existing scholarship about summer learning, especially that of African American students.

Summary of Summer Learning Loss - Themes

Schools Provide Access to Capital

African American and low-SES students make similar school-year gains because they have access to the capital that schools provide. Heyns (1978) led the way with research in this area and found that differences in the rate of learning between black and white students as well as between low- and high-SES children were small during the school year. Entwisle and Alexander (1992) followed up by examining student achievement during the school year ("winter learning"). They found that "gains during the school year varied according to the child's socioeconomic status, but not in the way one might expect: White children who were educationally and socioeconomically better off often gained fewer points than their poorer classmates during the winter when school was in session" (Entwisle and Alexander, 1992, p. 73). Similarly, Alexander et al. (2001) also found that school year gains between high- and low-SES students were comparable. Additionally, according to Alexander (2007), "We find that cumulative achievement gains over the first nine years of children's schooling mainly reflect

school-year learning.” This means that if minority and low-SES students do well during the school year, then schools could be more strategic with their targeted academic interventions. Last, my studied look to add to the literature on school-year academic growth by focusing on low- and high-achieving African American students.

Summer Learning/Capital Loss

As stated above, the concept of summer learning loss has been explored since White (1906). Other researchers followed, with the majority of researchers concluding that students do experience summer learning loss. Those researchers include Brueckner and Distad (1924), Nelson (1928), Cook (1942), Beggs and Hieronymus (1968), Heyns (1978), and more recently, Entwisle and Alexander (1992), Cooper et al. (1996), Downey et al. (2004), and Alexander et al. (2007). This means, for the vast majority of students, that academic progress is not continuous. However, some students are able to access capital over the summer, resulting in continuous summer academic growth. Therefore, my research looked to add to the literature and determine what summer experiences result in summer academic growth rather than summer academic loss for African American Students.

Summer Experiences/Activities

Last, what are the recognized summer experiences that result in academic achievement? The literature on summer activities that result in academic growth is relatively new. Heyns (1978) was the first to look at the summer experiences of students, and at those experiences that resulted in academic growth. She found reading to be the primary summer activity that resulted in academic growth. Additionally, she found some association (although not a significant association) between summer travel and academic growth. My study researched the summer

activities of low- and high-achieving African American students and looked to add to the summer learning literature discussion.

Next Steps in Solving Summer Learning Loss – Gaps in the Literature

In summary, from the literature outlined above we know that most students, regardless of race or SES make similar learning gains during the school year. Also, the literature above is clear that most students experience some academic achievement loss over the summer break. Therefore, the next steps are to extend the line of research on summer learning by exploring the different summer activities that students pursue. My study researched the summer experiences/activities between low- and high-achieving African American students.

The literature review raised some serious concerns about learning when school is not in session, specifically during summer vacation. In my project, I examined, through the use of a survey, the summer activities of students and how those activities related to academic achievement during the school year. Understanding how low- and high-achieving African American students spend their time over summer break can give valuable insight into what is making a difference with regard to academic achievement.

Also, after the initial data were analyzed, I interviewed students who were high-achieving/summer growth, high-achieving/summer loss, low-achieving/summer growth, and low-achieving/summer loss, for a deeper understanding of their summer experiences and the learning that happens, or does not happen, over the summer. This mixed methods approach fills an existing gap when researching summer learning loss.

In short, I looked to answer the following questions, which guided my research and data collection. Those questions are:

1. How does school-year learning loss/growth affect low- versus high-achieving African American students?
2. How does summer learning loss/growth affect low- versus high-achieving African American students?
3. What are the summer experiences/activities of low- versus high-achieving African American students?
4. Which summer experiences/activities contribute to summer learning for low- and high-achieving African American students?

CHAPTER 3: METHODOLOGY

Introduction

The purpose of this study was to determine the similarities and differences in the summer experiences of low- and high-achieving African American students, and how those summer experiences may or may not contribute to summer learning. This methodology section describes the steps that were necessary to answer my research questions. My methodology chapter starts with a discussion of the research design: the design type, how it relates to my study, the rationale for the design, and its appropriateness for the study. Next, I discuss the participants of the study, including a description of the participants and their school, the number of participants included in the study, their location, sample size, criteria for inclusion, and a step-by-step account of the sampling procedures. After this, I describe the instruments used in the study. This third section gives a detailed description of all the instruments used in my study and explains their validity and reliability.

Additionally, this methodology chapter details how, when, and where data were collected, and it discusses how the data were analyzed after being collected. Finally, I conclude this methodology chapter by addressing the limitations associated with my study.

The above procedures helped me to answer the following research questions:

1. How does school-year learning loss/growth affect low- versus high-achieving African American students?
2. How does summer learning loss/growth affect low- versus high-achieving African American students?
3. What are the summer experiences/activities of low- versus high-achieving African American students?

4. Which summer experiences/activities contribute to summer learning for low- versus high-achieving African American students?

Research Design

This study was designed to determine if the summer experiences of low- and high-achieving African American students contribute to summer academic growth or summer learning loss. I gathered data through a mixed methods approach. This mixed methods approach was significant because research on summer learning loss has been exclusively quantitative. I used a quantitative approach to address questions one and two, and a mixed methods (qualitative and quantitative) approach to answer questions three and four. These methodologies can help us understand what summer activities are making a difference for low- and high-achieving African American students. I chose a mixed methods approach in order to both identify patterns in the summer learning data and to have direct engagement with students, gaining insight into the summer experiences of African American students and how learning was (or was not) continuous for them.

Rational for Selection

Schools often turn to data to make informed decisions about academic interventions geared towards improving academic performance. The literature indicates that students, regardless of race and SES, make similar learning gains during the school year. Therefore, I sought in my own study first to establish whether or not low- and high-achieving African American students do in fact experience similar learning growth during the school year (Question 1). A descriptive quantitative approach was necessary to do this. Descriptive research was necessary for reviewing students' achievement data in the content areas of reading and mathematics, from the fall to the spring. This descriptive research also allowed me better to

understand how learning is affected differently for low- versus high-achieving African American students. This approach permitted me to see the bigger picture within the African American student population, and also to identify patterns that were apparent in the data.

Next, a descriptive quantitative approach was also necessary and appropriate to determine which low- and high-achieving African American students experienced summer academic growth or loss (Question 2). Student achievement data in the content areas of reading and mathematics were reviewed in the spring and then again in the fall, to determine if low- and high-achieving African American students had experienced summer achievement gains or losses. This descriptive research approach helped me determine which African American students experienced summer learning gains or losses.

Also, a mixed methods approach was used to determine what activities low- and high-achieving African American students were involved in over summer vacation (Question 3). Again, I used descriptive quantitative research initially. A survey was given to all African American students after they returned from summer vacation, to determine what activities they had been involved in. A descriptive research approach was necessary to determine if there were particular activities that low- and high-achieving African American students were involved in which were resulting in summer learning loss or growth.

Last, I used a qualitative case study approach was appropriate for obtaining a deeper understanding of the learning experiences of low- versus high-achieving African American students over the summer (Questions 3 and 4). A case study approach allowed me to uncover what lies behind the summer experiences and the summer learning of low- versus high-achieving African American students. Obtaining this qualitative data was critical in my efforts to understand what summer activities contribute to summer learning. Roberts (2010) wrote,

“Qualitative research tells a story from the viewpoint of the participants that provides rich descriptive detail” (p. 145).

Population and Sample of Participants

Andrew County (pseudonym) has an approximate population of 160,000 residents, of which approximately 8.3% are African American. Additionally, an estimated 16.1% of people live below the poverty line. Andrew County includes twelve school districts and two charter schools. The inner-city School District of Andrew County participated in this study, and participants were selected from the population of students in its middle school.

The participating public middle school is located inside the city limits, and eight elementary buildings feed into it. The middle school is considered an urban school, with a student population of approximately 1,100 students, of which 36% are African American, 45% are Caucasian, 10% are Hispanic, and 65% qualify for free or reduced lunch. I chose this site because of the demographics and the ability to obtain the support of the district superintendent and the building principal.

The data from the public middle school in Andrew County, with grades six, seven, and eight, was used to determine school-year learning growth and summer learning growth or loss. This school data included over 200 African American middle school students, with demographic data such as grade, gender, and socioeconomic status attached to the students.

This inner-city public middle school was chosen because of its demographics and disparities in academic achievement. Having a participating school like the public middle school in Andrew gave me access to a wide variety of demographic data. Additionally, this is a large inner-city public school, which gave me a large population size. A letter seeking to conduct my research (see Appendix A) was written to the district superintendent and approved. The testing

data had already been completed when I began my research, and the student surveys were issued by the students' classroom teachers. Therefore, the integrity of the student test scores and surveys are in good standing.

The data for all current African American middle school students were analyzed to determine school-year learning and summer learning growth or loss. Students who had not completed three testing cycles of the Northwest Evaluation Association (NWEA) Measures of Academic Progress (MAP) testing data (six total) in both mathematics and reading, were excluded from the data. However, I believe the effects of the exclusion of these students and test scores to be minimal.

To determine what experiences low- and high-achieving African American students were having over the summer, a survey (see Appendix B) was given to all African American students at this middle school. The survey was voluntary, and a letter was mailed to all parents prior to students participating in the survey. The parents had the option to exclude their student from participating in the survey (see Appendix D). Also, prior to the administration of the survey, I discussed the purpose and details of the survey with all the teachers that proctored the survey on my behalf. Last, the teachers explained the purpose of the survey and gave every student the option to participate in the survey or to "opt-out" of it, without penalty (see Appendix C).

Last, a group of low- and high-achieving African American students were randomly selected to be interviewed about their summer experiences (see Appendix E). According to their GPA and summer growth/loss, five students from each group (low- and high-achieving) were randomly selected and interviewed about their summer experiences.

Instrumentation

This study analyzed quantitative measurements in four different areas: the growth of learning of students during the school year (descriptive measurement #1), the summer learning growth/loss of low- versus high-achieving African American students (descriptive measurement #2), the survey of low- and high-achieving students' summer experiences (descriptive measurement #3), and the summer experiences/activities that contributed to summer learning (descriptive measurement #4). Also, low- and high-achieving African American students were interviewed regarding their summer experiences (case study #1). The first two areas of measurement drew on NWEA MAP testing data. The third area of measurement was a survey of student summer experiences. The fourth area of measurement examined African American students' summer experiences through a list of interview questions.

NWEA MAP Testing

The instrument that was used for descriptive measurements #1 and #2 was the NWEA MAP test. This adaptive computerized test was created by Northwest Evaluation Association (NWEA), a non-profit educational organization. The difficulty of the questions was determined by the student and how he or she answered the previous questions. In short, the questions got harder as the students answered more questions correctly, and the questions got easier as the students answer more questions incorrectly. A final scale score called the Rasch UnIT (RIT) was given, based on each student's achievement. This RIT score can be used to track student progress and growth from year to year or test to test. This MAP test was given to students in the areas of reading and mathematics.

The MAP test was an appropriate instrument to measure students' learning during the school year and over summer break. The MAP test provides a detailed, accurate account of

student's learning. This testing instrument was appropriate for descriptive measurements #1 and #2 because achievement data were provided for every student. The data provided information on where the student started and finished academically.

The MAP testing was given three times during the school year: fall (September), winter (February), and spring (May). This testing was done in the school's computer labs, and it was proctored by the mathematics and reading teachers. The reading portion of the test had approximately 43 questions, and it took about one hour to complete. The mathematics section of the test had approximately 54 questions, and it also took about one hour to complete. However, the MAP testing did not have a maximum time limit, and students who needed additional time were given it. If a student was unable to finish either portion of the test or was absent, make-up days and time slots were made available for students to complete the test.

Every computer lab or testing session was staffed with the students' classroom teacher in the area of mathematics or reading and a testing proctor. School staff were expected to support each student during the testing process, but were required to stay neutral as students responded to the questions. School staff led the students to the computer lab, seated the students, and ensured that all computers were working properly, and that the testing site was up and working appropriately, and that students had a proper testing environment. However, school staff were not expected to help students answer any of the questions, or to lead students to answer questions correctly.

Last, when students were finished testing, a RIT score was displayed on their screen. This was for their information only, so they knew how they performed on the test. When all students were done taking their test, the test administrator ran a report with all the RIT scores. NWEA makes it possible to know how each student performed on each individual test, and to

monitor the growth and/or weaknesses of each individual student. Furthermore, NWEA provides RIT charts to help students, parents, and staff to interpret a student's score.

PHASE I - Summer Activities Survey

The survey was designed to determine what kind of summer experiences low- and high-achieving students had over summer break. The survey was developed and intended to be given in a paper format. Also, the survey was given during the school day at the beginning of the school year (September 4th).

However, before the survey was given to the students, parent consent forms were sent home. The students whose parents that did not wish them to participate in the summer survey were excluded. The core World Language teachers on each middle school team were responsible for administering the surveys, collecting them, and turning them in to the office. The summer activities surveys were administered throughout the school day in the student's World Language classroom. The World Language teachers were responsible for making sure every student had an appropriate amount of time to complete the survey. Additionally, these teachers ensured that students were working in a positive classroom environment, that their responses were their own, and that the students did not feel pressured in completing the survey or responding a certain way. Also, the classroom teachers moved throughout the classroom answering any questions that students had. However, the teachers were instructed that the responses should be the students' own, and thus should not help the students answer any questions in a certain way.

The survey questions were yes, no, or short answer responses. A complete copy of the survey is attached within Appendix B. The questions of the survey in short format are as follows:

1. Please write-in your student ID# below.
2. What grade are you in?
3. What is your gender?
4. What is your ethnicity?
5. This past summer, did you attend summer school?
6. Were you involved in organized sports over summer break?
7. Did you travel over summer vacation?
8. Please describe the nature of your summer travel.
9. If you did travel over summer break, please indicate the trip(s) taken?
10. Did you visit the library over the summer break?
11. Did you read independently over the summer?
12. Did you participate in any of the following camps?
13. How many days did you spend away from your home?
14. Would you consider your summer vacation to have been fun?
15. Do you believe your learning still continued over the summer?
16. In what way(s) would you say your learning continued over summer vacation?

This survey was appropriate for this study because it allowed me to obtain data on the summer experiences/activities of low- and high-achieving African American students. More importantly, through a descriptive design, I was able to determine which summer activities were making a difference for low- versus high-achieving African American students academically.

Additionally, this survey identified the similarities and differences in summer activities between low- and high-achieving African American students.

My goal was to have at least 200 African Americans participate in the student summer activities survey. Having the majority of African American students participate in the survey was important so that I could compare the summer activities of students, specifically low- versus high-achieving African American students, with their student achievement data. For absent students, I set up a make-up day with the principal. I made personal phone calls home to explain the purpose of this survey if questioned by students or parents. Taking such actions as these helped guarantee increased participation.

PHASE II - Student Interviews

The purpose of this study was to determine if the summer learning for low- versus high-achieving African American students was a result of the differences in their summer learning experiences. Through a case study design I was able to determine if low- and high-achieving African American students with similar out-of-school summer experiences were doing better academically during the school year. More importantly, this data showed that these African American students were not experiencing summer academic learning loss due to their participation in specific summer activities. However, through a case study design, I researched if low- versus high-achieving African American students felt they were still learning over the summer through these summer activities. Through student interviews, I explored how low- and high-achieving African American students were still learning over summer break when they were not in school.

The participants included ten randomly selected low- and high-achieving African American students from four categories: low-achieving/summer growth, low-achieving/summer loss, high-achieving/summer growth, and high-achieving/summer loss. These students were interviewed about their summer experiences. This data allowed me to compare the summer

experiences and academic achievement of low- and high-achieving African American students. More importantly, this data helped me answer *why* low- and high-achieving African American students were experiencing summer learning loss and *why* summer break is contributing to this loss.

These interview questions were intended to help me understand why some low- and high-achieving African American students were still learning over the summer while others experienced academic loss. The student interviews lasted approximately 15 – 20 minutes. These interviews were recorded and transcribed for accuracy. Also, the interviews took place at the school in a conference room designated by the principal. A consent form from the students' parent/guardian (see Appendix G) and a student assent form (see Appendix F), as required by Michigan State University's IRB for middle school students between the ages of 11 – 14, was collected before students were allowed to participate in this interview process. The interview questions were:

1. Are you glad to be back to school? How do you feel you do in school?
2. What do you like about school? What do you dislike about school?
3. What do you think it takes to do well in school?
4. Tell me about your summer vacation?
5. How much time do you spend away from home versus at home?
6. Do you and/or your family travel over the summer break? If so, where? Is this traveling opportunity for pleasure or to visit family?
7. Will you participate in any extra-curricular activities? If so, what?
8. Do you work or volunteer over summer break?
9. Do you read over the summer?

10. Do you believe your summer experiences help you in school? If so, in what way?
11. What type of activities outside of school do you think help you with school?
12. What kind of activities are your friends involved in over the summer?
13. If you could do anything you wanted over the summer, what would you choose to do?
14. Do you see any similarities in the type of activities you are involved in versus some of your friends? Any differences?
15. Why do you think you experienced summer achievement growth? Loss?

The purpose of this case study was to provide a deeper understanding, from the student perspective, of whether the summer activities of low- and high-achieving African American students resulted in summer learning. However, it was essential that I, as the researcher, observed, listened, and recorded students accurately. To ensure that this happened, I recorded and transcribed each student interview. Additionally, I shared the transcripts with the students to ensure their answers and transcriptions of their response were accurately depicted. Last, as I analyzed and wrote about their summer experiences, I used their comments in quotations within my research. The above strategies ensured that the students' responses and my interpretations of these responses were accurately documented.

Data Collection Procedures

PHASE I - Descriptive Measures #1 and #2

First, it was important to understand the learning growth of all students during the school year. The literature suggests that African American students and low- and high-SES students make similar learning gains during the school year. Therefore, I calculated the amount of learning growth during the school year, defined as winter learning (WL). In order to calculate the amount of learning growth a student had during the school year, I first ran the NWEA MAP

test reports for the appropriate testing periods, for both mathematics and reading, for all 6th, 7th and 8th grade students. For this descriptive design, the NWEA MAP report had seven testing periods for both reading and mathematics. The four testing periods over a one year were as follows:

Year 1 - fall 2013, winter 2014, and spring 2014 – (3 testing periods)

Year 2 – fall 2014 – (1 testing period)

Data were collected as soon as students completed their fall 2014 testing cycle (September/October).

PHASE I - Descriptive Measure #3

Next, students were surveyed about their summer activities. This survey was given to all African American students within the first couple of weeks after they returned to school from summer vacation (September). After receiving the completed student surveys, I compiled the results into an excel document and SPSS file, in order to analyze the results (October). Before data were analyzed, I went through the data and cleaned up or deleted any responses with missing data. When breaking down the data, I summarized each question according to the responses given by low- and high-achieving African American students. This helped answer the following questions:

1. How does school-year learning loss/growth affect low- versus high-achieving African American students?
2. How does summer learning loss/growth affect low- versus high-achieving African American students?

More importantly, upon compilation of the survey results, I ran the data through SPSS software to determine statistical significance. Results and findings for these tests are reported in Chapter 4.

PHASE II - Case Study #1

Last, low- and high-achieving African American students were randomly identified at the end of September 2014 to be interviewed about their summer experiences. The student interviews took place at their school and lasted approximately 15-20 minutes. These interviews were recorded and transcribed for accuracy. After the interviews were transcribed, they were coded in order to be properly analyzed.

Data Analysis

PHASE I - Descriptive Measures #1 and #2

To determine the learning growth of low- versus high-achieving African American students during the school year and the amount of summer learning growth or loss, the NWEA MAP testing data were collected over a full school year. Data were entered into SPSS for analysis purposes.

First, it was important to understand the learning growth of all students during the school year. However, for the purpose of this research study, the learning growth for low- and high-achieving African American students was the primary focus. To calculate the amount of learning a student had during the school year, the following formula was used.

- Winter Learning = (Spring 2014 Scores) – (Fall 2013 Scores)
 - Winter Gains (school access) = POSITIVE values
 - Winter Losses (academic school year loss) = NEGATIVE values

After these calculations were made, the data were analyzed to determine if students' learning growth was similar during the school year. The data were then sorted and analyzed by grade, gender, and SES to understand how learning compared.

Second, it was important to determine which African American students were experiencing academic learning loss over the summer break. To determine the African American students who were experiencing summer learning loss, the data above were used in a slightly different manner. The summer learning gains and losses were calculated by using the following formulas:

- Summer Learning Loss = (Fall 2014 Scores) – (Spring 2014 Scores)
 - o Summer Learning Gains = POSITIVE values
 - o Summer Learning Loss = NEGATIVE values

Again, after these calculations were made, the data were analyzed to determine which African American students were affected by summer learning loss. The data were sorted and analyzed by ethnicity and SES, to determine if the groups were affected differently.

PHASE I - Descriptive Measure #3

After the surveys were returned, they were entered into SPSS to be analyzed. SPSS was used to analyze responses for all low- and high-achieving African American students. The results were displayed in a fashion similar to the chart below.

Table 3.1

Student Survey Responses – Example Chart

Student ID#	Question #1	Question #2	Question #3	Question #4	Question #4	Question #6	Etc...	GPA	SES
Student A									
Student B									
Etc...									

The student GPAs were added to their summer activities responses so that the data could be analyzed accordingly. Additionally, the appropriate statistical analysis tests were conducted to determine the statistical significance of each independent variable.

PHASE II - Case Study #1

Last, through a case study, interviews were recorded and transcribed. These transcripts were then coded into themes and categories to compare and contrast similarities and differences. A phenomenological approach was used to analyze the data for this case study. This approach helped in comparing the phenomenon of summer learning loss in a variety of ways. The data were reported and displayed in a similar fashion to the chart below.

Table 3.2

Student Survey Responses with Demographic Data – Example Chart

QUESTIONS	PARTICIPANT #1	PARTICIPANT #2	PARTICIPANT #3	PARTICIPANT #4	ETC...
Study ID#	123456	234561	345612	456123	561234
Grade	6 th	7 th	8 th	8 th	7 th
GPA Low- or high-achieving African American students	3.0 High-achieving	1.7 Low-achieving	3.4 High-achieving	4.0 High-achieving	2.2 Low-achieving
SES	Free, Reduced, or Regular	Free, Reduced, or Regular	Free, Reduced, or Regular	Free, Reduced, or Regular	Free, Reduced, or Regular
Question #1	Student Response	Student Response	Student Response	Student Response	Student Response
Question #2	Student Response	Student Response	Student Response	Student Response	Student Response
ETC...	ETC...	ETC...	ETC...	ETC...	ETC...

The outcomes of this qualitative research were then triangulated with the quantitative data to validate themes and patterns. How low- versus high-achieving African American students were learning and through which activities was the focal point of this triangulation process.

Limitations

The major limitation of this study was in the identification of students who had experienced summer learning loss or growth. This was a limitation because of the timing of the NWEA MAP test administrations. Generally, the testing is done in September and May. However, the exact days in September and May had the potential to bias the results. This is because of the teaching that was still involved before students took the test in September and the teaching that still occurred after students were tested in May. The amount of teaching that still occurred could therefore skew the results of summer learning loss/growth calculations.

Another limitation of this study was with the other school interventions that African American students may have been receiving throughout the school year. School-year and summer learning were assumed to have been the result of classroom instruction, but I did not take into account other learning that may have happened, in school and out of school.

CHAPTER 4: FINDINGS AND RESULTS

We now know that a major contribution to the achievement gap occurs when students are on summer vacation. This period of time is often referred to as summer learning loss, or the summer slide. If schools are going to improve academic achievement for students, they must consider interventions during the summer break when students are losing the most academically. My study focused on the summer learning of African American students. This chapter discusses the findings and results for the following research questions:

1. How does school-year learning loss/growth affect low- versus high-achieving African American students?
2. How does summer learning loss/growth affect low- versus high-achieving African American students?
3. What are the summer experiences/activities of low- versus high-achieving African American students?
4. Which summer experiences/activities contribute to summer learning for low- versus high-achieving African American students?

The purpose of this chapter is to present the findings and results for the research questions above. To accomplish this task, this chapter starts by discussing the setting. The setting section describes the personal and organizational conditions that may have influenced the participants during the course of this study. Next, I discuss the demographics and characteristics of the participants as they relate to this study. Then I present “Phase I” and “Phase II” of my research findings and results. Phase I describes my quantitative data collection process, my quantitative data analysis and interpretations, and my quantitative results. Phase II presents my qualitative data collection process, my qualitative data analysis interpretations, and my

qualitative results. Last, both Phase I and Phase II conclude with a brief summary of the research questions.

Setting

The community where this middle school is located has a city population of over 33,000. It is an urban city. The city's median household income is approximately \$26,500, compared to the \$46,800 state income average. The ethnic make-up consists of 68.5% white, 21.7% black, 5.1% Hispanic, and 3.6% of two or more ethnic groups. Females outnumber males in this urban community, 53% to 47%, respectively. When looking at the education level of community members, approximately 83% of its residents have a high school degree or higher, 13.5% have a bachelor's degree or higher, and 4% have a graduate or professional degree. Family characteristics include 38% who are currently married, 38% who have never married, 14% who are divorced, and 10% other. Last, the unemployment rate in this community sits at approximately 14%, which is higher than Michigan's overall 9% unemployment rate. The workforce of the community consists largely of industrial employment at 32% and retail at 11%.

Demographics

The characteristics of this urban middle school have a lot of unique features. For starters, it is newly identified as a "priority school." Priority school status represents an underperforming school as it relates to student achievement. The percentile rank for this urban middle school is in the bottom five percent. In terms of enrollment, the student population is diverse, with the ethnic make-up being 47.0% white, 40.7% black, 3.5% two or more ethnic groups, and 6.5% Hispanic. The gender division is 49% female and 51% male. Additionally, the middle school has a high poverty level, with 71% of students qualifying as economically disadvantaged.

Phase I: Quantitative

Quantitative Data Collection

The data collection process started by meeting with the middle school principal. I met with Principal P. on August 18, 2014, at 1:00pm, to discuss in detail the process of giving the summer survey. During this meeting, it was confirmed that the summer experiences/activities survey would be given by the World Language teachers. Also, the final details for administering the surveys were outlined and communicated to Principal P.'s administrative assistant. Principal P's administrative assistant was responsible for collecting all completed surveys from each World Language teacher.

The administrative assistant's first responsibility was to send home the Parent Information Letter. This Parent Information Letter was mailed home in the school's back-to-school information packet. This letter was a parent permission letter for their child to take the summer experiences/activities survey. Also, it notified parents that their child's academic records would be accessed. Although an exemption waiver was approved by the MSU IRB Board, I still gave parents the option to "opt-out" their students from the survey.

On August 26, 2014, at 11:00am, I attended the middle school's opening day staff meeting. At this staff meeting, I met with the World Language teachers, to discuss how to administer the summer experiences/activities survey. During this meeting, it was discussed that the survey would be given on Thursday, September 4, 2014. The outline for giving the survey was also discussed in detail. Every World Language teacher would first discuss and collect the student assent forms before giving the survey. The student assent forms collected from every student signified their intent to participate or "opt-out" of the survey.

Communication with the World Language teachers continued until September 4, when students took the survey. These communications were emails, which requested that the World Language teachers collect any of the Parent Permission Letters on Tuesday September 2, when students returned to school. Also, I requested that they hand out additional copies to those students who did not return a parent permission letter. On Wednesday, September 3, the World Language teachers again checked with students to make sure that a parent permission slip was returned or the students were given an additional copy.

On September 4, 2014, all participating students took the summer experiences/activities survey. Students who did not have parent permission or who did not assent to the survey were excluded. An alternative assignment was given to all students not participating. This was done to ensure that attention or pressure was not placed on the students not participating. The survey was voluntary in nature. Also, although this study only focused on the summer experiences of African American students, all students at this middle school were surveyed. This included all grades: sixth, seventh, and eighth. The age of the respondents ranged from 11 to 14.

The surveys were distributed at the middle school. The surveys were given within the student's World Language class. This meant that seven World Language teachers surveyed their students, across seven class periods (note: one teacher had a half-time schedule). There were a total of 790 students who participated in the survey, with 125 others opting out and 195 absent or not enrolled in school (see Table 4.1 below). Out of the 790 students who participated in the survey, there were 52 surveys that were deleted because there was not any student achievement data for these students. This was due to the students being new to the district/school, being frequently absent, and/or never taking the local achievement test. More importantly, from the

790 student surveys collected, 229 surveys were collected from African American students. The 229 African American survey data were the focus of this research.

Table 4.1

Survey Participants (N = 790)

Teacher	n	%
Teacher #1	107	13.5
Teacher #2	102	12.9
Teacher #3	41	5.2
Teacher #4	140	17.7
Teacher #5	129	16.3
Teacher #6	127	16.1
Teacher #7	144	18.2

Additionally, the number of students who opted out or were absent are recorded in Table 4.2 below (Note: Teacher 3 had a part-time teaching schedule, teaching only periods five through seven). Also, the other teachers had one class period that served as their planning period, and therefore no surveys were recorded during those periods.

The World Language teachers collected all surveys after each class period, and they placed them in a manila folder which was returned to Principal P.'s administrative assistant. After all student data were entered into an excel document, the surveys and student assent forms were put into a locked file cabinet in my office.

Table 4.2

“Opt-Out” (n) or Absent (a) Survey Participants (N = 790)

Teacher	n	a	%
Teacher #1	26	23	6.2
Teacher #2	18	30	6.0
Teacher #3	2	30	4.0
Teacher #4	19	23	5.3
Teacher #5	15	36	6.5
Teacher #6	28	28	7.0
Teacher #7	17	25	5.3

Last, other than the higher-than-expected number of absent or “dropped” students, there were no unusual circumstances encountered in the data collection process. Student cooperation/participation and the data collection went smoothly. The school secretary and the World Language teachers were extremely helpful and thorough in this data collection process. Additionally, support from the principal made this process efficient, especially through her efforts to communicate the survey collection process with the World Language teachers.

Quantitative Data Analysis

This quantitative data analysis section describes the process used to inductively analyze the collected data and find patterns in the data. As part of this data analysis section, I summarize the demographic data, give an overview of the achievement data, and examine the achievement data in relation to the survey questions. All of this was done while considering my four research questions and theoretical themes. This data analysis section only discusses the data collected,

with a brief interpretation of the data where appropriate. The interpretations of the data and the answers to the research questions will be discussed in the quantitative results section to follow.

Demographic data. There were 229 summer experiences/activities surveys collected from African American students at the middle school. These students were in grades six (N=75), seven (N=71), and eight (N=83). The African American student population overwhelmingly fell in the low-socioeconomic status (N=205) group, which makes up 89.5% of the African American student population (the building overall is 71% low-socioeconomic status). Additionally, the collection of completed surveys by gender was relatively comparable, with the majority of completed surveys coming from females (N=117) compared to males (N=112). Last, surveys were grouped by the achievement status of African American participants. High-achieving African American students (N=117) made up the slight majority of respondents, compared to low-achieving students (N=112) (see Table 4.3 below for a summary of the African American students who participated in the summer experiences/activities survey).

Table 4.3

Demographic Characteristics of Participants (N = 229)

Characteristic	n	%
Grade		
6 th Grade	75	32.7
7 th Grade	71	31.0
8 th Grade	83	36.2
Socioeconomic Status (SES)		
Free/Reduced Lunch	205	89.5
Regular	24	10.5
Gender		
Male	112	48.9

Table 4.3 (cont'd)

Female	117	51.1
Achievement		
High-Achieving	117	51.1
Low-Achieving	112	48.9

Student achievement overview. After looking at the demographic results of the participants, I summarized and analyzed the student achievement data. Table 4.4 below gives an overview of the achievement data and summarizes the student achievement of high- versus low-achieving African American students. The achievement data was compared between these two groups, and the table includes information on GPA mean, summer loss, and school-year growth. Also, the data are broken down by the subject areas (reading or mathematics), and by socioeconomic status (free/reduced and regular lunch).

Table 4.4

High- versus Low-Achieving Data Overview (N = 229)

Characteristics	High-Achieving (N=117)	Low-Achieving (N=112)
GPA Mean (overall)	3.3411	1.9954
Free/Reduced SES	3.3187	2.0051
Regular SES	3.4640	1.8238
Summer Loss Mean		
Mathematics	-3.91	-7.02
Reading	-6.12	-6.70
School Year Growth		
Mathematics	6.15	7.19
Reading	8.87	7.51

Math Summer Loss by SES

Table 4.3 (cont'd)

Free/Reduced	-4.04	-7.12
Regular	-3.18	-5.00
Reading Summer Loss by SES		
Free/Reduced	-6.60	-6.93
Regular	-3.20	0.33
Mathematics School Year Growth by SES		
Free/Reduced	6.04	7.02
Regular	6.76	9.67
Reading School Year Growth by SES		
Free/Reduced	8.77	7.87
Regular	9.41	2.00

Analysis of Research Questions

This section only presents the achievement data collected in relation to the survey responses. Brief interpretations of the data are provided where appropriate. The data are presented according to my research questions and theoretical themes which are as follows:

1. How does school-year learning loss/growth affect low- versus high-achieving African American students (Access to Capital)?
2. How does summer learning loss/growth affect low- versus high-achieving African American students (Summer Access Loss)?
3. What are the summer experiences/activities of low- versus high-achieving African American students (Recognized versus Unrecognized Capital)?
4. Which summer experiences/activities contribute to summer learning for low- versus high-achieving African American students (Capital Connected to School Learning)?

The interpretations of the data and the answers to the research questions were discussed in the quantitative results section.

Access to capital. If student achievement is the goal, then it is essential that schools are monitoring the learning of their students. In education this is referred to as progress monitoring. Progress monitoring is necessary for knowing if students are learning or not. It is expected that students demonstrate academic growth while school is in session. Low- and high-achieving African American students have the same access to academic growth while school is in session, and academic growth should be evident for both groups during this time. This is the focus of my first research question, and I examined the data to see if low- and high-achieving students learned at different rates during the school year.

Table 4.5 indicates that both high- and low-achieving African American students experienced growth in mathematics during the school year. Ninety out of 107 high-achieving African American students, or 84%, demonstrated increased mathematics achievement during the school year. Additionally, low-achieving African American students had similar growth in mathematics during the school year. As shown in Table 4.5 below, 74 out of 91 low-achieving African American students, or 81%, demonstrated increased mathematics achievement during the school year. Very few students in either group, high- and low-achieving, did not have school year growth in mathematics, 16% and 19% respectively. This is important because it suggests that schools help both low- and high-achieving African American students in mathematics similarly. If this were not the case, we would expect to see an achievement gap between the two groups.

Table 4.5

High- (N=107) versus Low-Achieving (N=91) Mathematics School Growth

School Year Growth/Loss In Mathematics	n	%
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Table 4.5 (cont'd)

High-Achieving School Growth	90	84
High-Achieving School Loss	17	16
Low-Achieving School Growth	74	81
Low-Achieving School Loss	17	19

Similarly, the majority of high- and low-achieving African American students experienced growth in reading during the school year. Table 4.6 displays the school-year growth for high- versus low-achieving students in reading. Ninety-three out of 106 high-achieving African American students, or 88%, had school-year growth in reading. Also, 70 out of 93 low-achieving African American students, or 75%, had school-year growth in reading. In short, very few high-achieving or low-achieving students did not have school year growth in reading, 12% and 25% respectively. Again, similar to the school-year mathematics data, growth is evident for both low- and high-achieving African American students at similar rates.

Table 4.6

High- (N=106) and Low-Achieving (N=93) Reading School Growth

School Year Growth/Loss In Mathematics	n	%
High-Achieving School Growth	93	88
High-Achieving School Loss	13	12
Low-Achieving School Growth	70	75
Low-Achieving School Loss	23	25

Summer access loss. My second research question was designed to determine how summer learning loss affects high- versus low-achieving African American students. If it were determined that both low- and high-achieving students experienced summer loss, then we could say that summer has the potential to be a strategic time to improve academic achievement. The data from the completed surveys were put into Table 4.7 below. In analyzing this data, it appears that summer learning loss affected high- and low-achieving African American students in mathematics. Seventy-four out of 102 high-achieving African American students, or 73%, experienced summer learning loss in mathematics. Similarly, 65 out of 85 low-achieving African American students, or 76%, experienced summer learning loss in mathematics. Very few high- or low-achieving African American students experienced summer growth in mathematics. Again, this is significant because identifies summer learning for low- and high-achieving African American students in mathematics as what schools need to address to ensure both groups continue to grow academically.

Table 4.7

High- (N=102) versus Low-Achieving (N=85) Mathematics Summer Loss

Summer Growth/Loss In Mathematics	n	%
High-Achieving Summer Loss	74	73
High-Achieving Summer Growth	28	27
Low-Achieving Summer Loss	65	76
Low-Achieving Summer Growth	20	24

Table 4.8

High- (N=104) versus Low-Achieving (N=88) Reading Summer Loss

Summer Growth/Loss In Reading	n	%
High-Achieving Summer Loss	86	83
High-Achieving Summer Growth	18	17
Low-Achieving Summer Loss	59	67
Low-Achieving Summer Growth	29	33

Additionally, summer learning loss was prevalent among high- and low-achieving African American students in reading. Eighty-six out of 104 high-achieving African American students, or 83%, experienced summer learning loss in reading. Similarly, 59 out of 88 low-achieving African American students, or 67%, experienced summer learning loss in reading. Therefore, very few students experienced summer growth in the area of reading. This is significant because low- and high-achieving African American students are not experiencing academic loss in reading during the school year but rather over the summer.

Recognized versus unrecognized capital. The data above suggest that low- and high-achieving African American students make similar gains in reading and mathematics during the school year, and that they experience similar academic losses over the summer. With this in mind, my third research question was designed to address the summer experiences/activities of low- versus high-achieving African American students. This question was designed to help us understand how low- and high-achieving African American students are spending their summer break, and which summer experiences/activities, if any, are being recognized or are resulting in improved academic achievement. Table 4.9 groups the summer experiences/activities of low-and

high-achieving African American students according to their survey responses. This table allowed me to compare how the two groups spent their summer vacations.

A reading of Table 4.9 reveals similarities in the summer activities of high- and low-achieving African American students. Indeed, similar response patterns emerged on a number of items in the survey, including participation in summer sports (Q#6), summer travel (Q#7), nature of travel (Q#8), visiting the library (Q#10), time spent away from home (Q#13), and whether or not the students found summer to be fun (Q#14). Table 4.9 is thus noteworthy because it demonstrates that low- and high-achieving African American students have many similar summer experiences/activities.

When analyzing the summer learning of high- versus low-achieving African American students, the responses of students attending summer school stuck out. Interestingly, most students did not continue their learning by attending summer school. Neither high- nor low-achieving students attended summer school with great frequency, with only 7.7% of high-achieving and only 12.5% low-achieving students attending. However, of the two groups, the low-achieving African American students were nonetheless more likely to attend summer school when compared to the high-achieving African American students. This is thought-provoking, because summer school does not appear to be making a difference academically in this situation.

Table 4.9

Survey Responses of High-Achieving versus Low-Achieving Participants (N = 229)

Survey Questions	HA (N=117)	%	LA (N=112)	%
Attended Summer School (Q#5)				
Yes	9	7.7	14	12.5

Table 4.9 (cont'd)

No	107	91.5	95	84.8
N/A	1	.9	3	2.7
Participated in Summer Sports (Q#6)				
Yes	69	59.0	60	53.6
No	46	39.3	50	44.6
N/A	2	1.7	2	1.8
Traveled Over the Summer (Q#7)				
Yes	87	73.4	78	69.6
No	28	23.9	32	28.6
N/A	2	1.7	2	1.8
Nature of Travel (Q#8)				
Family (1)	36	30.8	33	29.5
Pleasure (2)	24	20.5	32	28.6
Both (3)	34	29.1	15	13.4
No Travel (4)	22	18.8	29	25.9
N/A	1	.9	3	2.7
Library (Q#10)				
Yes	49	41.9	41	36.6
No	67	57.3	67	59.8
N/A	1	.9	4	3.6
Summer Reading (Q#11)				
Yes	77	65.8	61	54.5
No	38	33.3	48	42.9
N/A	2	1.7	3	2.7
Reading Frequency (Q#11)				
0 Books (1)	33	28.2	48	42.9
1-2 Books (2)	44	37.6	36	32.1
3-4 Books (3)	16	13.7	10	8.9
5+ Books (4)	17	14.5	15	13.4
N/A	2	1.7	3	2.7
Summer Camps (Q#12)				
Yes	61	52.1	43	38.4
No	55	47.0	65	58.0
N/A	1	1.7	4	3.6
Time Away From Home (Q#13)				

Table 4.9 (cont'd)

0 days	8	6.8	8	7.1
1-14 days	65	55.6	56	50.0
15+ days	44	37.6	45	40.2
Summer Fun (Q#14)				
Yes	88	75.2	84	75.0
No	10	8.5	7	6.3
Undecided	18	15.4	17	15.2
N/A	1	.9	4	3.6
Learning Continued (Q#15)				
Yes	69	59.0	63	56.3
No	18	15.4	22	19.6
Undecided	30	25.6	25	22.3
N/A	0	0	2	1.8

Table 4.9 presents a number of other findings, but the responses pertaining to summer reading and the frequency of reading are two categories worth mentioning. High-achieving African American students reported reading over the summer more frequently than low-achieving African American students, 65.8% to 54.5% respectively. Moreover, high-achieving African American students reported reading a larger number of books over the summer than low-achieving African American students. Therefore, Reading Frequency (Q #11) is a category to pay more attention to over the summer when looking at the characteristics of high- versus low-achieving African American students. This finding corresponds to what is mentioned throughout the literature for summer activities that make a difference for academic achievement.

Also, summer camps were another summer activity that high-achieving African American students reported being involved in over the summer break. Of the high-achieving African American students, 52.1% reported attending summer camp, while only 38.4% of low-achieving African American students reported doing so. High-achieving students thus had

13.7% greater participation in summer camp. This is significant because summer camps appear to make a difference for the summer learning of high-achieving African American students.

Last, when analyzing Table 4.9, the response percentages between high- and low-achieving African American students on whether their summer learning continued was interesting. There was only a small percentage difference between high-achieving African American students (59.0%) versus low-achieving African American students (56.3%) when they were asked if they thought their learning had continued over the summer. This means that both low- and high-achieving students believed their learning continued over the summer, even though the majority of those students experienced summer learning loss.

Capital connected to school learning. Capital is the knowledge that we acquire through our lived experiences. Students are continuously building capital at home, in their community, and at school. Since learning is continuous, it is essential for schools to connect school capital with the personal experiences of students, to ensure that students continue to grow academically over the summer.

Analyzing the student achievement data with the survey responses of high- versus low-achieving African American students assisted me in answering my fourth research question: which summer experiences/activities contributed to summer learning and building capital? After analyzing the responses to the survey questions, I looked at how the summer activities may have been tied to school-year grade point average (GPA). This is reflected in Table 4.10 below. Interestingly, some of the same categories emerged as discussed for Table 4.9. Those categories surrounded summer similarities, summer school, summer reading frequency, and summer camps.

Similarities that should be noted from analyzing Table 4.10 include summer sports, summer travel, visiting the library over the summer, and the question of continued learning.

When looking at the school-year GPA for these categories, they are all nearly equal, whether students indicated participating or not.

Also, data from Table 4.10 show that students who did not attend summer school had a higher school-year GPA compared to students who did attend summer school. African American students who did not attend summer school had a GPA mean of 2.72, compared to the 2.44 GPA for those African American students who did attend. This represented a difference of .28. Additionally, African American students who read frequently over the summer (3 or more books) had a higher GPA (2.87) than those students who do not read (2.58), or who read two or fewer books (2.72). Last, when analyzing Table 4.10, African American students who attended summer camps had a higher GPA (2.80) compared to those African American students who did not attend camps over the summer (2.60).

Table 4.10

Grade Point Average (GPA) By Survey Question (N = 229)

Survey Questions	GPA Mean	N
Summer School (Q#5)		
Yes	2.44	23
No	2.72	202
Participated in Summer Sports (Q#6)		
Yes	2.69	129
No	2.66	96
Traveled Over the Summer (Q#7)		
Yes	2.68	165
No	2.68	60
Nature of Travel (Q#8)		
Family (1)	2.70	69
Pleasure (2)	2.50	56

Table 4.10 (cont'd)

Both (3)	2.94	49
No Travel (4)	2.65	51
Library (Q#10)		
Yes	2.71	90
No	2.68	134
Summer Reading (Q#11)		
0 Books (1)	2.58	86
1-2 Books (2)	2.72	80
3-4 Books (3)	2.87	26
5+ Books (4)	2.74	32
Summer Camps (Q#12)		
Yes	2.80	104
No	2.60	120
Time Away From Home (Q#13)		
0 days	2.82	16
1-14 days	2.75	121
15+ days	2.58	89
Summer Fun (Q#14)		
Yes	2.66	172
No	2.80	17
Learning Continued (Q#15)		
Yes	2.72	132
No	2.68	40

Table 4.11 below further connects the summer achievement data in mathematics and reading with the summer experiences/activities of African American students. Table 4.11 allows us to determine if there were summer activities that African American students were involved in that assisted their summer learning. Overall, however, summer learning loss appeared to have occurred in both reading and mathematics regardless of the summer experiences/activities that African American students were involved in. When analyzing this further, no summer

experience/activity appeared to impact positively the summer learning of African American students in mathematics or reading.

Table 4.11

Summer Learning Loss in Mathematics and Reading by Survey Question (N = 229)

Survey Questions	Mathematics Summer Loss Mean (N)	Reading Summer Loss Mean (N)
Summer School (Q#5)		
Yes	-3.95 (21)	-9.00 (17)
No	-5.27 (171)	-5.82 (178)
Participated in Summer Sports (Q#6)		
Yes	-5.44 (115)	-6.96 (112)
No	-5.22 (78)	-5.45 (83)
Traveled Over the Summer (Q#7)		
Yes	-5.07 (146)	-6.52 (147)
No	-5.90 (48)	-4.94 (48)
Nature of Travel (Q#8)		
Family (1)	-5.82 (62)	-4.72 (64)
Pleasure (2)	-4.77 (52)	-7.19 (48)
Both (3)	-4.88 (40)	-7.98 (43)
No Travel (4)	-5.56 (39)	-5.38 (40)
Library (Q#10)		
Yes	-5.62 (74)	-5.35 (74)
No	-5.20 (118)	-7.03 (120)
Summer Reading (Q#11)		
0 Books (1)	-4.29 (73)	-6.80 (71)
1-2 Books (2)	-6.33 (69)	-5.70 (71)
3-4 Books (3)	-2.50 (22)	-6.92 (24)
5+ Books (4)	-7.79 (28)	-5.89 (28)
Summer Camps (Q#12)		
Yes	-4.58 (93)	-6.28 (94)

Table 4.11 (cont'd)

No	-6.15 (99)	-6.23 (100)
Time Away From Home (Q#13)		
0 days	-5.25 (12)	-0.93 (14)
1-14 days	-4.30 (107)	-6.57 (104)
15+ days	-6.63 (74)	-7.94 (78)
Summer Fun (Q#14)		
Yes	-6.14 (148)	-6.99 (149)
No	-4.14 (14)	-5.94 (16)
Learning Continued (Q#15)		
Yes	-5.52 (110)	-6.72 (113)
No	-5.26 (35)	-6.17 (35)

Table 4.12 below connects school-year student achievement data in mathematics and reading with the summer experiences/activities of African American students, to determine if any of these experiences/activities might still have made a difference for student achievement during the school year, even if they did not affect summer learning. Table 4.12 displays the academic growth that was made during the school year for students involved in the various summer activities. The importance of this is to see if there are summer experiences/activities that result in academic growth during the school year.

Table 4.12

School Year Growth Means in Mathematics and Reading by Survey Question (N = 229)

Survey Questions	Mathematics School Growth Mean (N)	Reading School Growth Mean (N)
Attended Summer School (Q#5)		
Yes	3.76 (21)	9.00 (20)

Table 4.12 (cont'd)

No	6.92 (182)	7.79 (183)
Participated in Summer Sports (Q#6)		
Yes	6.16 (117)	8.49 (117)
No	7.33 (86)	7.74 (86)
Traveled Over the Summer (Q#7)		
Yes	6.27 (150)	8.52 (148)
No	7.72 (53)	6.84 (55)
Nature of Travel (Q#8)		
Family (1)	7.20 (64)	6.28 (64)
Pleasure (2)	6.17 (52)	11.04 (51)
Both (3)	5.84 (43)	7.69 (42)
No Travel (4)	7.11 (44)	7.76 (46)
Library (Q#10)		
Yes	6.33 (79)	9.18 (79)
No	6.97 (124)	7.39 (124)
Summer Reading (Q#11)		
0 Books (1)	6.58 (73)	7.60 (73)
1-2 Books (2)	6.33 (72)	7.83 (72)
3-4 Books (3)	6.08 (26)	10.50 (26)
5+ Books (4)	8.45 (31)	7.61 (31)
Summer Camps (Q#12)		
Yes	6.57 (93)	8.60 (96)
No	6.83 (105)	7.59 (106)
Time Away From Home (Q#13)		
0 days	8.86 (14)	6.27 (15)
1-14 days	6.22 (111)	8.81 (111)
15+ days	6.18 (79)	8.23 (78)
Summer Fun (Q#14)		
Yes	7.04 (157)	8.60 (156)
No	5.88 (17)	10.82 (17)
Learning Continued (Q#15)		
Yes	6.19 (116)	8.64 (117)
No	7.49 (39)	7.87 (38)

Quantitative Results

This section answers each research question from the present data in the quantitative analysis section. The quantitative results are discussed and synthesized in detail in Chapter 5 which connects the literature and my theoretical framework to these results.

Question 1: How does school-year learning loss/growth affect low- versus high-achieving African American students? Answering question one began with Table 4.5, which compared the growth of low- versus high-achieving African American students during the school year in the content area of mathematics. The data showed that 84% of high-achieving and 81% of low-achieving African American students demonstrated growth in mathematics during the school year. Additionally, 88% of high-achieving and 75% of low-achieving African American students made school growth in reading. However, to answer question one properly, further statistical analysis is necessary.

Therefore, I conducted linear regressions to analyze the significance of school-year growth in mathematics and reading for low- versus high-achieving African American students. For these two regressions, mathematics and reading scores served as my dependent variables, and the achievement status of African American students served as my independent variable. The results are displayed in Tables 4.13 (mathematics) and 4.14 (reading).

The first of these two regression summaries is displayed in Table 4.13, which provides the regression summary for school-year mathematics scores and achievement status. The results for this ANOVA table show that the hypothesized regression model is not significant at the alpha level of .05. This means that there was not a significant difference in growth during the school year, in the area of mathematics, between low- and high-achieving African American students.

This is important because it can be said that low- and high-achieving African American students grew equally, generally speaking, during the school year in mathematics.

Table 4.13

Regression Analysis Summary for High- versus Low-Achieving African American Students during the School Year in Mathematics

Data Source	Sum of Squares	df	Mean of Squares	F-statistic	p-value
Regression	55.075	1	55.075	.764	.383
Residual	14781.021	205	72.103		
Total	14836.097	206			

Note. DV – School Year Loss in Mathematics and IV – High- and Low-Achieving African American Students.

The second of these two regression summaries is displayed in Table 4.14, which provides the regression summary for school-year reading scores and achievement status. The results for this ANOVA table show that the hypothesized regression model is not significant at the alpha level of .05. This means that there was not a significant difference in growth during the school year, in the area of reading, between low- and high-achieving African American students. This finding is noteworthy because the data show that low- and high-achieving African American students had similar school-year growth in the content area of reading.

Table 4.14

Regression Analysis Summary for High- versus Low-Achieving African American Students during the School Year in Reading

Data Source	Sum of Squares	df	Mean of Squares	F-statistic	p-value
Regression	96.404	1	96.404	1.029	.311
Residual	19198.466	205	93.651		

Table 4.14 (cont'd)

Total	19294.870	206
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Note. DV – School Year Loss in Reading and IV – High- and Low-Achieving African American Students.

Additionally, in continuing to answer the question of the amount of school year growth for low- versus high-achieving African American students, I conducted two more regressions with the same dependent variables, mathematics and reading scores, and five other independent variables. These statistical analyses were important to perform so that I could determine if there were other independent variables affecting the scores. These independent variables of interest included achievement status, free/reduced SES, gender, grade effect 1, and grade effect 2. In conducting this regression analysis for mathematics, the resulting ANOVA table shows that the hypothesized regression model was significant at the alpha level of 0.05. Therefore, Table 4.15 demonstrates that the five independent variables did help to predict the dependent variables.

Table 4.15

Regression Analysis Summary for High- versus Low-Achieving African American Students during the School Year in Mathematics (IV=5)

Data Source	Sum of Squares	df	Mean of Squares	F-statistic	p-value
Regression	1677.008	5	335.402	5.123	.000
Residual	13159.088	201	65.468		
Total	14836.097	206			

Table 4.16 displays these independent variables and their effect on mathematics during the school year. However, Table 4.16 shows that there was no significant difference between achievement status, the independent variable, and growth in mathematics, the dependent

variable, when controlling for SES, gender, and grade. The resulting p-value was significant at the alpha level of 0.05 for both grade effect 1 and grade effect 2, but it was not significant for achievement status. This table is meaningful because it suggests that growth in mathematics during the school year was not affected by those independent variables. In other words, those independent variables had no influence on school-year growth in the area of mathematics.

Table 4.16

Regression Analysis Summary for Independent Variables of School-Year Growth in Mathematics for High- versus Low-Achieving African American Students

Variable	B	SE B	β	t	p
High-Low Achievement Status	-1.612	1.163	-.095	-1.386	.167
F&R Effect Code	-.917	.912	-.068	-1.005	.316
Gender Effect	.794	.570	.094	1.393	.165
Grade Effect 1	-1.714	.791	-.169	-2.166	.031
Grade Effect 2	-2.009	.822	-.190	-2.445	.015

Table 4.17 displays the results for the regression analysis of school-year growth in reading. The resulting ANOVA table shows that the hypothesized regression model was not significant at the alpha level of 0.05, and that the five independent variables did not relate to school-year growth in reading. Since the p-value was not significant, there was no need to explore the independent variables in this regression model further (see Table 4.18). The significance of Table 4.17 is that it can be said that low- and high-achieving African American students had similar academic growth, during the school year, in the content area of reading.

Table 4.17

Regression Analysis Summary for High- versus Low-Achieving African American Students during the School Year in Reading

Data Source	Sum of Squares	df	Mean of Squares	F-statistic	p-value
Regression	266.730	5	53.346	.564	.728
Residual	19028.140	201	94.667		
Total	19294.870	206			

Table 4.18

Regression Analysis Summary for Independent Variables of School-Year Growth in Reading for High- versus Low-Achieving African American Students

Variable	B	SE B	β	t	p
High-Low Achievement Status	1.240	1.399	.064	.886	.376
F&R Effect Code	.435	1.098	.028	.396	.692
Gender Effect	-.219	.686	-.023	-.318	.750
Grade Effect 1	-.896	.957	-.078	-.936	.350
Grade Effect 2	-.151	.989	-.013	-.152	.879

Question 1 summary. There were no significant differences in school-year reading or mathematics achievement between low- and high-achieving African American students. This means that low-and high-achieving students made similar academic growth during the school year. This is important to my research and the learning of low- and high-achieving African American students, because schools are making a difference in academic growth during the school year, when students have access to the capital that schools provide. Therefore, necessary improvements must be made in the area(s) where low- and high-achieving African American

students are falling behind. For that reason, my second research question will turn to the learning that occurs for low- versus high-achieving students over summer vacation.

Question 2: How does summer learning loss/growth affect low- versus high-achieving African American students? The answers to my second research question began with Table 4.7, which compared the summer learning loss of low- and high-achieving African American students. The data showed that 73% of high-achieving and 77% of low-achieving African American students experienced summer learning loss in mathematics. Additionally, 83% of high-achieving and 67% of low-achieving African American students experienced summer learning loss in reading. However, to answer question two properly, further statistical analysis was necessary. A linear regression approach was an appropriate model for this analysis because this statistical model can be used to predict the relationship between dependent variables (mathematics and reading achievement scores) and independent variables (achievement status).

Therefore, I conducted additional linear regressions to analyze the significance of summer learning loss in mathematics and reading for low- and high-achieving African American students. For these two regressions, mathematics and reading scores served as my dependent variables, and the achievement status for African American students served as my independent variables. The results are displayed in Table 4.19 and Table 4.20.

The first of these two regression summaries, displayed in Table 4.19, provides the regression summary for summer learning loss in mathematics and achievement status. The results for the ANOVA table show that the hypothesized regression model was significant at the alpha level of 0.05. This means that there was a significant difference in summer learning loss in the area of mathematics between low- and high-achieving African American students. This was an unexpected finding, because summer learning loss in the area of mathematics appears to

affect low- and high-achieving students differently, despite what Table 4.7 suggested. High-achieving African American students do not experience as much summer learning loss in mathematics when compared to low-achieving African American students.

Table 4.19

Regression Analysis Summary for High- versus Low-Achieving African American Students Over Summer Vacation In the Area of Mathematics

Data Source	Sum of Squares	df	Mean of Squares	F-statistic	p-value
Regression	470.604	1	470.604	6.004	.015
Residual	15205.029	194	78.376		
Total	15675.633	195			

The next regression summary is displayed in Table 4.20, which provides the regression summary for summer learning loss in reading and academic status. The results for the ANOVA table show that the hypothesized regression model was not significant at the alpha level of 0.05. This means that there was no significant difference in summer learning loss in reading between low- and high-achieving African American students. This is significant because it confirms that low- and high-achieving African American students experienced summer learning loss in reading similarly.

Additionally, in continuing to answer the question of the amount of summer loss for low- versus high-achieving African American students in the areas of mathematics and reading, I conducted two more regressions with the same dependent variables (mathematics and reading scores) and five independent variables related to African American students. These regression analyses were necessary to determine if there were other independent variables that were

influencing the dependent variable. These independent variables included achievement status, free/reduced SES, gender, grade effect 1, and grade effect 2.

Table 4.20

Regression Analysis Summary for High- versus Low-Achieving African American Students Over Summer Vacation In the Area of Reading

Data Source	Sum of Squares	df	Mean of Squares	F-statistic	p-value
Regression	16.452	1	16.452	.108	.743
Residual	30036.976	197	152.472		
Total	30053.427	198			

In conducting the regression analysis for mathematics (Table 4.21) the resulting ANOVA shows that the hypothesized regression model was significant at the alpha level of 0.05.

Therefore, Table 4.21 shows that the independent variables did help predict the dependent variables. This table is significant because it can be said that the high-achieving African American were not affected by summer loss in mathematics to the same degree as low-achieving African American students.

Table 4.21

Regression Analysis Summary for High- versus Low-Achieving African American Students Over Summer Vacation In the Area of Mathematics (IV=5)

Data Source	Sum of Squares	df	Mean of Squares	F-statistic	p-value
Regression	2204.224	5	440.845	6.218	.000
Residual	13471.409	190	70.902		
Total	15675.633	195			

Table 4.22 displays those independent variables and their effect on mathematics scores over summer vacation. Moreover, Table 4.22 shows there were significant differences between achievement status and summer mathematics loss when controlling for SES, gender, and grade. The resulting ANOVA value was significant at the alpha level of 0.05 for both achievement status and grade effect 1. The importance of this finding is that the grade level of low- and high-achieving African American students was influencing the summer growth/loss of low- versus high-achieving African American students.

Table 4.22

Regression Analysis Summary for Independent Variables of Summer Mathematics Loss for High-versus Low-Achieving African American Students

Variable	B	SE B	β	t	p
High-Low Achievement Status	3.589	1.265	.200	2.836	.005
F&R Effect Code	-.099	.996	-.007	-.099	.921
Gender Effect	-.520	.614	-.058	-.848	.398
Grade Effect 1	3.029	.841	.283	3.603	.000
Grade Effect 2	.831	.876	.074	.949	.344

Last, Table 4.23 displays the results for the regression analysis of summer loss in the content area of reading. The resulting ANOVA table shows that the hypothesized regression model was not significant at the alpha level of 0.05 and that the five independent variables did not significantly relate to summer loss in reading. Since the p-value was not significant, there

was no need to explore the independent variables in this regression model further (see Table 4.24).

Table 4.23

Regression Analysis Summary for High- versus Low-Achieving African American Students Over Summer Vacation In the Area of Reading (IV=5)

Data Source	Sum of Squares	df	Mean of Squares	F-statistic	p-value
Regression	637.462	5	127.492	.836	.525
Residual	29415.966	193	152.414		
Total	30053.427	198			

Table 4.24

Regression Analysis Summary for Independent Variables of Summer Reading Loss for High-versus Low-Achieving African American Students

Variable	B	SE B	β	t	p
High-Low Achievement Status	-.269	1.832	-.011	-.147	.883
F&R Effect Code	-1.891	1.571	-.088	-1.204	.230
Gender Effect	-.956	.891	-.078	-1.073	.285
Grade Effect 1	1.094	1.230	.075	.890	.375
Grade Effect 2	-1.236	1.304	-.080	-.948	.345

Question 2 summary. It was found that there was no significant difference in summer learning loss patterns between low- and high-achieving African American students in reading. This means that low- and high- achieving African American students experienced summer learning loss in reading similarly. This finding actually confirms much of the literature which

holds that low- and high-achieving African American experience summer learning loss in reading equally. However, it was also found that there was a statistical difference in summer learning loss between low- and high-achieving African American students in mathematics. This means that low- and high-achieving African American students experienced summer learning loss in mathematics differently. This finding differs from the literature, which holds that low- and high-achieving African American students experience summer learning loss similarly in mathematics.

Question 3: What are the summer experiences/activities of low- versus high-achieving African American students? Question three sought to understand the summer experiences of low- versus high-achieving African American students. The purpose of this question was to determine if there were summer experiences that contributed to the academic success of low- or high-achieving African American students. In Table 4.5, the summer experiences/activities for low- versus high-achieving African American students are described.

Tables 4.25 through 4.28 (below) are designed to show whether there is any association between the summer activities and the achievement status of African American students.

Table 4.25 displays several summer experiences/activities from student responses on the survey. Of these responses, summer camp was the only summer experience/activity where there was any significance (chi-squared value of 0.055). Therefore, I marginally accept the alternative hypothesis which states that there was a significant difference in summer camp attendance between low- and high-achieving African American students. This means that there was an association between attendance of summer camp and the achievement status of African American students.

Table 4.25

Association between Summer Experiences/Activities and High- (n=117) versus Low-Achieving (n=112) African American Students

Summer Activity	High-Achieving (N=117)		Low-Achieving (N=112)		$\chi^2(1)$
	n	%	n	%	
Attended Summer School (Q#5)	9	7.7	14	12.5	.208
Participated in Summer Sports (Q#6)	69	59.0	60	53.6	.408
Traveled Over the Summer (Q#7)	87	74.4	78	69.6	.421
Library (Q#10)	49	41.9	41	36.6	.514
Summer Camps (Q#12)	61	52.1	43	38.4	.055
Summer Fun (Q#14)	88	75.2	84	75.0	.734
Learning Continued (Q#15)	69	59.0	63	56.3	.795

Another summer experience/activity that was determined to have a significant association with academic status was the nature of summer travel (see Table 4.26). The chi-squared value was .033, and, therefore, I accept the alternative hypothesis that there was a significant difference in the nature of summer travel between low- and high-achieving African American students.

This means that there was an association between the nature of summer travel and the achievement status for low- versus high-achieving African American students.

Table 4.26

Association of Nature of Travel with High- (n=117) versus Low-Achieving (n=112) African American Students

	High-Achieving	Low-Achieving
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Table 4.26 (cont'd)

Nature of Travel (Q#8)	(N=117)		(N=112)	
	n	%	n	%
Family (1)	36	30.8	33	29.5
Pleasure (2)	24	20.5	32	28.6
Both (3)	34	29.1	15	13.4
No Travel (4)	22	18.8	29	25.9
N/A	1	0.8	3	2.7

$$\chi^2(4) = .033$$

Table 4.27

Association of Summer Reading with High- (n=117) versus Low-Achieving (n=112) African American Students

Summer Reading Frequency (Q#11)	High-Achieving (N=115)		Low-Achieving (N=109)	
	n	%	n	%
0 Books (1)	38	33.0	48	44.0
1-2 Books (2)	44	38.3	36	33.0
3-4 Books (3)	16	13.9	10	9.2
5+ Books (4)	17	11.3	15	13.8

$$\chi^2(3) = .346$$

Additionally, it appears that there was no association between achievement status and the frequency of summer reading. The chi-squared value was calculated to be .346 (Table 4.27),

which suggests there was no association between these variables. These two variables were independent of each other.

Last, I conducted a chi-squared analysis to determine if there was any association between the amount of time low- versus high-achieving African American students spent away from home and their achievement status. The chi-squared value was calculated at .820 (see Table 4.28), which suggests there was not an association between the amount of time spent away from home and the achievement status of low- and high-achieving African American students. These two variables were independent of each other.

Table 4.28

Association of Time Away From Home with High- (n=117) versus Low-Achieving (n=112) African American Students

Time Away From Home (Q#13)	High-Achieving (N=117)		Low-Achieving (N=109)	
	n	%	n	%
0 Days (1)	8	6.8	8	7.3
1-14 Days (2)	65	55.6	56	51.4
15+ Days (3)	44	37.6	45	41.3

$$\chi^2(2) = .820$$

Question 3 summary. After all the summer experiences/activities were analyzed, there were two experiences/activities which were found to be associated with the achievement status of African American students. It was found that summer camps and the nature of summer travel had a significant association with the achievement status of African American students. This is different from any of the earlier research on summer learning, because much of the literature

only focuses on whether or not students experience summer loss and not which activities might predict academic growth. However, Heyns (1968) explored many summer activities and how those activities resulted in academic achievement, finding that reading was the only summer activity with any significance. This differs from my findings which suggest that summer camp and travel activities had some significance.

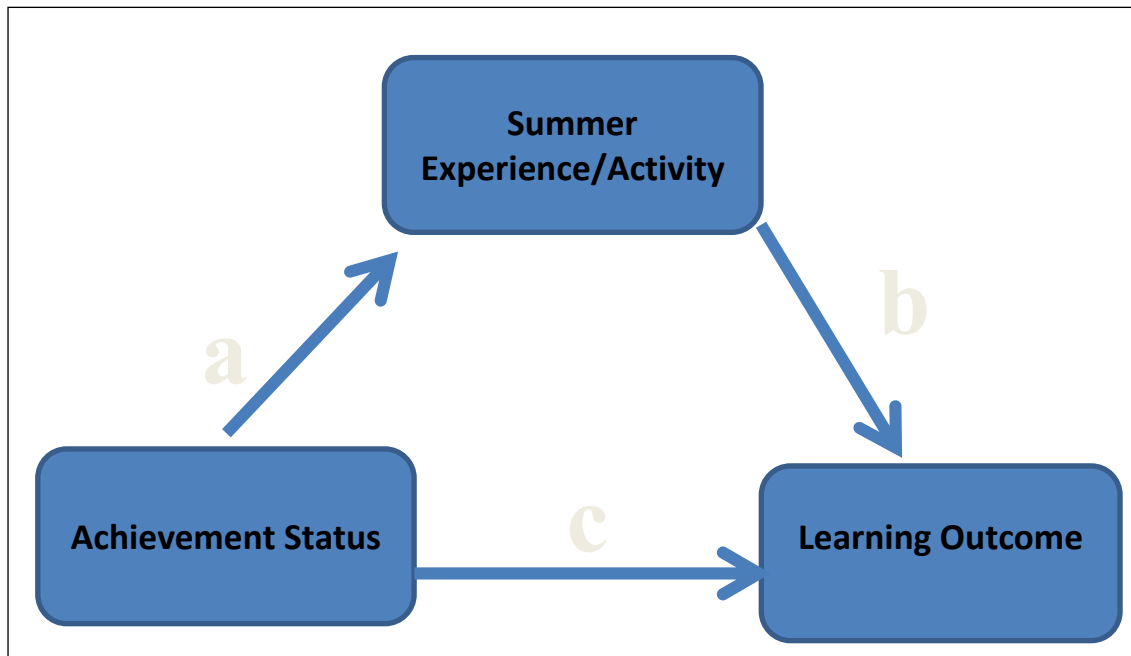
Question 4: Which summer experiences/activities contribute to summer learning?

To answer the question of which summer experiences/activities contribute to summer learning, I conducted a mediation analysis. Mediation is the effect of a second independent variable on a dependent variable. As McKinnon et al. (2007) wrote, “Mediation in its simplest form represents the addition of a third variable to this $X \rightarrow Y$ relation, whereby X causes the mediator, M , and M causes Y , so $X \rightarrow M \rightarrow Y$ ” (see Table 4.29 below). In this mediation analysis, low- versus high-achieving African American students represent achievement status, summer math loss represents the learning outcome, and summer camps and nature of travel represent summer activity.

However, tests were necessary to make sure there was a difference between achievement status and learning outcome “c.” This was done in Table 4.19. The regression analysis that was conducted found a significant relationship between summer learning loss in mathematics and achievement status. The results for the ANOVA table showed that the hypothesized regression model was significant at the alpha level of 0.05. This means that there was a significant difference in summer loss, in the area of mathematics, between low- and high-achieving African American students.

Figure 1

The effect of summer experiences/activities on achievement status and learning outcome



Next, I tested the significance of association between the achievement status and the summer experiences/activities of African American students, “a.” This was done in Table 4.25 (summer camps) and Table 4.26 (nature of travel). The chi-squared value in Table 4.25 was right at the value of .055. Therefore, the alternative hypothesis, which states that there was a significant difference in summer camp attendance between low- and high-achieving African American students, was marginally accepted. This satisfied condition “a” in the mediation model. Also, the other summer experience/activity that was determined to have a significant association was the nature of summer travel (see Table 4.26). The chi-squared value was .033. Therefore, the alternative hypothesis, which holds that there was a significant difference in the nature of summer travel between low- and high-achieving African American students, was accepted. This also satisfied condition “a” in the mediation model. Therefore, the mediation

analysis was conducted for the summer activities of summer camps and nature of travel to satisfy condition “b” in the mediation model.

Tables 4.29 and 4.30 display the results of the mediation analysis and the regression analysis for summer learning loss in mathematics and summer camp experience. The resulting ANOVA table shows that the hypothesized regression model was not significant at the alpha level of 0.05, and that the eight independent variables did not significantly relate to summer loss in mathematics. This means that summer camp was not a summer activity that significantly contributed to summer learning in the content area of mathematics.

Table 4.29

Regression Analysis Summary for High- versus Low-Achieving African American Students Over Summer Vacation In the Area of Mathematics

Data Source	Sum of Squares	df	Mean of Squares	F-statistic	p-value
Regression	660.829	8	82.604 1	.060	.394
Residual	13875.802	178	77.954		
Total	14536.631	186			

Table 4.30

Regression Analysis Summary for Independent Variables of Summer Mathematics Loss for High-versus Low-Achieving African American Students

Variable	B	SE B	β	t	p
Free&Reduced	-1.102	2.127	-.039	-.518	.605
GenderNew(Male)	-1.027	1.363	-.058	-.753	.452
SummerSchoolNew	2.011	2.047	.073	.982	.327
SportsNew	-.485	1.447	-.027	-.335	.738
TravelNew	.289	1.535	.014	.188	.851

Table 4.30 (cont'd)

LibraryNew	-.670	1.347	-.037	-.498	.619
CampsNew	1.000	1.445	.057	.692	.490
HighLowAchieveNew	2.904	1.367	.163	2.125	.035

Last, Tables 4.31 and 4.32 display the results of the mediation analysis and the regression analysis for summer learning loss in mathematics and the nature of travel. The resulting ANOVA table shows that the hypothesized regression model was significant at the alpha level of .05. However, in looking at Table 4.32, the p-value for the nature of travel was not significant at the alpha level of 0.05 when controlling for six of its independent variables. This means that the nature of travel over the summer did not significantly contribute to summer learning in the content area of mathematics.

Table 4.31

Regression Analysis Summary for High- versus Low-Achieving African American Students Over Summer Vacation In the Area of Mathematics (IV=6)

Data Source	Sum of Squares	df	Mean of Squares	F-statistic	p-value
Regression	2194.162	6	365.694	5.059	.000
Residual	13445.589	186	72.288		
Total	15639.751	192			

Table 4.32

Regression Analysis Summary for Independent Variables of Summer Mathematics Loss for High-versus Low-Achieving African American Students

Variable	B	SE B	β	t	p
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Table 4.32 (cont'd)

NatureofTravelQ#8	.242	.550	.030	.441	.660
HighLowAchieveNew	3.590	1.294	.198	2.775	.006
F&REffectCode	-.060	1.033	-.004	-.058	.954
GenderEffect	-.494	.625	-.055	-.790	.430
GradeEffect1	2.994	.854	.279	3.507	.001
GradeEffect2	.908	.899	.080	1.010	.314

Quantitative Summary

Low- and high-achieving African American students grow academically during the school year and fall back academically over the summer at similar rates. My research has focused on what students are doing over the summer and the impact of their experiences/activities on their academic learning. There has been a lot of research and attention given to student academic achievement, and schools have been failing to properly educate the students they serve. However, in education, the goal is always to make data driven decisions and to identify where students are missing the mark academically. Much of the literature suggests that it is not the failure of schools to educate students, but rather, it is the effect of summer vacation that is causing students to fall behind academically. My quantitative research sought to answer four questions:

1. How does school-year learning loss/growth affect low- versus high-achieving African American students?
2. How does summer learning loss/growth affect low- versus high-achieving African American students?

3. What are the summer experiences/activities of low- versus high-achieving African American students?
4. Which summer experiences/activities contribute to summer learning for low- and high-achieving African American students?

To answer these research questions, my research started by exploring the academic achievement of high- versus low- African American students during the school year. Is there a difference in learning for low- versus high-achieving African American students during the school year? To answer this question, my quantitative approach looked at the descriptive data, in Tables 4.5 and 4.6, and I also conducted basic linear regression analyses (see Tables 4.13-4.18). The results from those regression models showed that there was no significant difference in the area of reading or mathematics gains during the school year between low- and high-achieving African American students. This means that low- versus high-achieving students had similar academic growth during the school year. Also, these results confirm what the literature suggests; schools make a positive difference for both low- and high-achieving African American students.

Given that low- and high-achieving African American students achieved similar gains during the school year, my next research question sought to answer the question regarding academic summer loss for low- versus high-achieving African American students. It was found that there was no significant difference between low- and high-achieving African American students in summer learning loss in reading. This means that low- and high- achieving African American students experienced summer learning loss in reading similarly, confirming what was mentioned in the literature. Descriptive statistics, in Tables 4.7 and 4.8, and regression analyses, in Tables 4.19 – 4.24, helped to arrive at this conclusion. However, it was also found that there was a statistical difference between low- versus high-achieving African American students and

summer learning loss in mathematics. This means that low- and high-achieving African American students experienced different rates of summer learning loss in mathematics. This finding was not surprising because the literature suggested that summer provides different learning opportunities for students to be exposed to mathematics.

Next, my research was concerned with the similarities and differences in the summer experiences/activities of low- versus high-achieving African American students. When the summer experiences/activities of low- versus high-achieving African American students were analyzed, it was found that there were two experiences/activities that were associated with the differential achievement of African American students. These similarities and differences were described in Table 4.9 and analyzed in Tables 4.25-4.28. It was concluded that summer camp and the nature of summer travel had a significant association with the achievement status of African American students. This is significant because according to Yosso (2005) these two summer experiences would be characterized as “recognizable” cultural capital.

Last, I conducted a mediation analysis to answer the question of whether there were any summer experiences/activities that contributed to summer learning. Through this mediation analysis, I first confirmed that there was a significant difference in rates of summer learning loss in mathematics between low- and high-achieving African American students. Additionally, through a chi-squared analysis, I confirmed that there was a significant difference in summer camp attendance and the nature of travel between low- and high-achieving African American students. However, when the third leg of the mediation analysis was conducted, there did not appear to be any significant differences related to these variables.

The results and findings of my quantitative research will be reviewed further in Chapter 5 which will discuss these findings within the context of previous literature and my theoretical

framework. However, I first further analyze research questions three and four through a qualitative process. These research questions are as follows:

3. What are the summer experiences/activities of low- versus high-achieving African American students?
4. Which summer experiences/activities contribute to summer learning for low- and high-achieving African American students?

PHASE II: Qualitative

Phase II of this research took a qualitative approach to understanding the summer experiences and learning of low- versus high-achieving African American students. The purpose of this qualitative approach was to answer questions three and four. Phase II presents the data collection, analysis, and results of my qualitative approach. The data collection process presents the procedures of the student interviews. The qualitative analysis presents the coded qualitative data with brief interpretations. And finally the results section answers my two research questions. The research questions to be answered by Phase II of this research are as follows:

3. What are the summer experiences/activities of low- versus high-achieving African American students?
4. Which summer experiences/activities contribute to summer learning for low- and high-achieving African American students?

Qualitative Data Collection

Out of the 229 African American students surveyed, 117 students were grouped as high-achieving students and 112 students were classified as low-achieving. The high-achieving students were those who had an academic GPA of 2.7 or higher, and the low-achieving students were those who had an academic GPA below 2.7. In all, ten African American students were

interviewed: five high-achieving and five low-achieving. These students were chosen randomly according to their achievement status and their summer learning achievement (growth or loss). Therefore, of these ten students, three students were high-achieving with summer loss, two students where high-achieving with summer growth, two students were low-achieving with summer loss, and three students were low-achieving with summer growth.

All ten student interviews were conducted at the middle school that these students attend. Each participant returned a parent permission slip to participate in the interview. Additionally, these students provided written assent for their voluntary participation in the summer experiences/activities interviews.

Through the assistance of Principal P.'s administrative assistant, the students were called down to the conference room to participate in the summer experiences/activities interview. The interviews ranged from ten to 25 minutes in length. Each interview was recorded, for the purpose of accuracy, using a digital audio recorder. Each audio file was transcribed and reviewed for accuracy. The names of participants were redacted from the transcripts to maintain anonymity. After the audio files were transcribed, they were filed and kept secure on my password-protected personal computer.

I did have three students and parents who opted not to participate in the summer experiences/activities interview. Those opt-out forms have also been kept on file in a locked file cabinet in my office. Other than students and parents not agreeing to participate, which was expected, there were no unusual circumstances that occurred or were encountered during the collection of my qualitative data.

Qualitative Data Analysis

As reported above, after interviewing all ten of my participants, the audio files were transcribed and reviewed for accuracy. The transcripts of the student interviews helped me move inductively from the student interviews to categories and themes. The purpose of this data analysis section is to identify and briefly describe the patterns that emerged in the qualitative data. I accomplished this by taking the transcripts and sorting the data by interview question and participant (see Tables 4.33-4.36 below). The patterns in the qualitative research in this section are used to answer my two research questions in the data results section. Additionally, the meaning of these findings is related to the literature and my theoretical framework in Chapter 5.

In analyzing Tables 4.33-4.36, there were several patterns that emerged in the data. From analyzing the data above, patterns emerged involving reading frequency, stagnant versus active summer activities, travel destinations, and summer activities connected to school.

First, there were patterns in student responses around reading frequency. From analyzing the data in Tables 4.33-4.36, low-achieving African American students reported reading less frequently than high-achieving African American students. Low-achieving African American students reported that they had read 1-2 books or no books at all. High-achieving African American students reported that they had read more books over the summer. High-achieving students even responded to reading as many as 10-15 books over summer vacation. This was not a response given by any low-achieving African American students.

Table 4.33

Interview Questions 1-6 for Participants 1-5

Q#	Question	Participant #1	Participant #2	Participant #3	Participant #4	Participant #5
Q1	Are you glad to be back to school? How do you feel you do in school?	Yeah, a little	Good	Good I love coming to school to learn	Yeah, I like being back in school Likes the homework that they do	It's good and I feel that I'm learning more
Q2	What do you like about school? What do you dislike about school?	I like seeing my friends. I like some teachers. Waking up in the morning.	Not getting in trouble like last year Get to see new teachers No Lifeskills class (elective)	My grades Likes math, science, and SS Dislikes the lunches	I like my teachers, in-school activities Would like more time to get to class	I like math I dislike the drama
Q3	What do you think it takes to do well in school?	The teacher	Focus on the work, not your friends	Be responsible, getting your work done	Paying attention in class Getting to class on time Doing all you homework and extra credit	A good open mind
Q4	Tell me about your summer vacation?	Sleep in Go to the park and play basketball or football Go swimming Get ice cream with mom	Go to Detroit with our family on Dad's side Family reunion - lots of food Home alone when at her god-mom's house, will play with her cell phone Water Parks, movie's-drive-in, Lots of family around	Went to Detroit, for a week or two Stayed at cousin's house Spent rest of the summer at home Watch TV, front yard to dribble the basketball	Drove to Atlanta for our family reunion Stayed at a hotel, a little condo - really pretty Saw family, ate, stay at parks Family reunion every year, but a different location - it's really fun At home, go to the park, play basketball, run around the field	Stay in the house and watch TV or go outside and hang out with my friends, have people come over
Q5	How much time do you spend away from home versus at home?	Time between mom and dads	Stays in Detroit the whole summer.	Rest of the summer at home	three days to a week	Went out-of-town a couple of times
Q6	Do you and/or your family travel over the summer break? If so, where? Is this traveling opportunity for pleasure or to visit family?	Michigan Adventures, w/dad Cedar Point last summer Florida for football	Only Detroit Never has been out of Michigan	No	Ohio, Alabama, Maryland, Washington D.C. Family reunions have taken me to different places (states) It's fun Also, flew to Miami, FL and cruise to the Bahamas Faraway trip every year too.	I went to Albion and Detroit, to see moms friends Just went for the day Went to Detroit to go shopping

Table 4.34

Interview Questions 1-6 for Participants 6-10

Q#	Participant #6	Participant #7	Participant #8	Participant #9	Participant #10
Q1	Yes	It's going OK	I am glad. Towards the end of the summer, I always get excited. I have a bunch of good teachers.	Scary, but then a little more comfortable - more used to the school and knowing the teachers' expectations.	Good, I like learning.
Q2	The new things that I'm able to learn and friends that I make Learning Class activities Dislikes the bullies	I like going to English class. I like Reading. Hanging out, seeing my friends more often at school. I like that I'm not at a bad school, getting an education. I dislike drama, girl drama	Teachers and how they teach. I like being around friends Fun classroom activities Dislike - tests	It's good. Knowing that it's all worth something, building my future by coming daily. Dislike - not knowing other kids in my classes	I like my classes and seeing my friends I like my teachers a lot Dislike - waking up early
Q3	Paying attention, listening to the teacher	Turn in all your work, have a positive attitude, stay out of drama	Responsibility, like turning in papers and homework You always have to pay attention Being a good adult, young adult	Study hard and pay attention	Listen to your teachers Pay attention Work hard
Q4	Went to St. Louis to visit my family, dad went there to take care of my grandfather Drove, stayed about a week or two Went ice skating, roller blading, and swimming. Went to the movies, big feast and family time. Went with brother, mom, and dad Stayed a couple of my friends' house Went to a summer program - King Center (month) Basketball, soccer, a little bit of football, movies and arts and crafts Liked participating	I sleep in. (1pm, bed by 9pm) I have my sister come over, from albion hanging out with my cousin Waterparks Stay in the house and read	Went on many trips, read a lot, time with friends Cedar Point, Chicago, Michigan beaches (Grand Haven, South Haven) restaurants. Ride bikes, explore, go to the movies, out to eat _ w/friends	I did films all summer, short film series (w/phone) on supernatural events Hanging out with family (three), aunt and uncle across the street	I went to my grandma's house up North I went swimming a lot at my Aunt's & Cousin's house Summer Band Mom makes me do a summer bridge book (workbook) - keeps mind fresher (3x per wk)
Q5	Just the time with grandfather	N/A	About 1/3 of the time	No	No, just over to Aunt's (swim) and grandma's (watches me)
Q6	No	I went to Michigan Adventures, Full Blast Ann Arbor to go shopping	N/A	No	N/A

Table 4.35

Interview Questions 7-13 for Participants 1-5

Q#	Question	Participant #1	Participant #2	Participant #3	Participant #4	Participant #5
Q7	Will you participate in any extra-curricular activities? If so, what?	Basketball, football, baseball "Get Real" program - zoo, water park, lakes, overnight retreat (church group) Learned about responsibility, no bullying, making friends	Wanted to do summer school, but stopped going. Attended about 2-3 weeks, it was fun. Went to camp, canoeing, ate, did games	No	Yes, Salvation Army Camp - it's really fun You stay in a cabin, give you three meals a day, do archery, boating, and sports, etc. Outdoor activities, magnifying classes and discovering new animals and insects Last 5 summers Academic games Recreation sports - basketball, soccer and gymnastics	No
Q8	Do you read over the summer?	No	I love reading! Bluford High series I will stay in my room and read a whole bunch of books Learn new words, picture it, Will read to my little sisters	Kind of, Adventure/mystery books None really over the summer	Yeah, I read a lot (iBooks on my iPad) 10-15 books over the summer Reads before going to bed Likes mystery and non-fiction books	Yeah, two or three weeks about two books, didn't remember the last book?
Q9	Do you believe any of your summer experiences help you in school? If so, in what way?	Yes, because if you're grades are not good then you can't play sports Helps me stay focused	No. Reading helps her with school, teaches me about growing up Summer school doesn't help because the students are bad	No.	yeah, Florida, adapting to new places	Not really
Q10	What type of activities outside of school do you think help you with school?	History and math	N/A	N/A	N/A	School is better for my learning
Q11	If you could do anything you wanted over the summer, what would you choose to do?	Go to different water parks	Be alone, away from her four sisters	N/A	Travel - London, England, Hawaii, or France, Switzerland	Alabama or Hawaii
Q12	Did you attend summer school, ever? What do you think about year-round school?	No - Yes	yes, summer school was fun No, not in favor of year-round school	No summer school.	No, but participated in a summer reading club Year-round might be fun. However, school sometimes just doesn't give you time to hang out with friends	Attended summer school before, in elementary school I liked that I made new friends and learned new stuff Didn't learn a lot, just a bunch of arts and crafts Did year-round school for two years, liked it because we had longer breaks Felt like they knew more when they got back to school, better prepared
Q13	Did your learning continue over the summer?	No, because we don't read or study	Yes, because my mom teaches us stuff, about growing up, about having a boyfriend	No. It had caught me off track and all that before I got to school.	Yeah, mom quizzes me a lot on math so I don't forget about stuff and if I forget then I'm like "Whoa"	No, because you don't really learn anything over the summer.

Table 4.36

Interview Questions 7-13 for Participants 6-10

Q#	Participant #6	Participant #7	Participant #8	Participant #9	Participant #10
Q7	No	I try to. I play tennis or basketball with my sisters at the park - across the street Not on any team.	Summer band (month of June, some of July) No organized sports this summer, but have in the past	No	Sand Soccer - Farmington Hills (few weeks over the summer)
Q8	Yes, I read teen fiction. probably science fiction 5-10 books	Yeah, about three	I read a good amount, especially when I'm away from home probably 15 books this summer	I read at least two books	yeah, maybe like ten
Q9	Yes, swimming Band, participated in summer band (3-4 weeks) and helps with band during the school year	Yes, reading because if I don't know a big-word I look it up. It helps me prepare for new words	Summer band, reading, and, probably, going on these trips learning stuff. i.e. summer band - we practice a lot, work on playing helps with other subjects too, takes a lot of focus and read. Reading - because in most classes we do reading all the time being able to read for large periods of time, which will help you with studying	Yeah, I guess. How long to record for before cutting to next scene. Improved my math skills.	No, not really
Q10	Swimming and Band	N/A	N/A	N/A	N/A
Q11	There's a lot, camping	Cedar Point and Miami, somewhere for the whole summer Never has been to either. Lots of beaches, seems like it would be fun. We could swim, ocean seems cleaner	More trips, probably more exotic locations or faraway locations Probably will help in school, in History and things like that	I would do a program for younger kids to keep their creativity skills up.	N/A
Q12	No year-round school, just lets you get more learning	Yeah, this year. Summer school helped Went to camp We planted plants and took'em home Went to the water place Then did journal writing Year-round school would be helpful	No, haven't attended summer school. Year-round - probably will help with school	No summer school. Year-round would help learning. Attended a balanced calendar school.	No, summer school. Yeah, year-round school would be beneficial.
Q13	Yes, learning how to swim	Yes, because of summer school and learning math It helps me remember things Get more experience with math.	Yeah, I would say. Probably in reading	Yes, my learning continued by studying new things I see. If I take an interest in it, I wanna study it and learn about it.	Yeah, I did the work book and it kept my mind fresh Remembered a lot of stuff when I got back to school. Summer Band helped when got back to school

Next, Tables 4.33-4.36 also reveal differences in the activity level (stagnant or active) of the summer experiences that the low- and the high-achieving African American students were having. After being asked about their summer experiences, it was common for the low-achieving students to respond that they had spent their summer vacation “sleeping in,” “watching TV,” or “staying home.” I have categorized these as “stagnant” summer activities. However, to be fair, more research is necessary around these “stagnant” activities to determine what students may or may not be learning. Conversely, the high-achieving African American students tended to describe their summer experiences/activities as being more “active.” Some responses from this group included “spending time away from home,” “traveling,” or some other summer learning activity.

Also, analyzing the student responses in Table 4.33-4.36 exposed differences in the type of summer travel that low- and high-achieving students experienced. Although both groups appeared have had an equal opportunity to travel over the summer, the travel for low-achieving students tended to be local. For the low-achieving African American students, local travel included trips to “Detroit to visit family,” “Michigan Adventure,” or “Full Blast.” When analyzing the responses pertaining to the summer travel of high-achieving African American students, travel more often included “out-of-state travel” or “out-of-state family reunion[s].”

Last, analyzing low- versus high-achieving African American students’ summer experiences revealed summer activities that were differentially connected to school. Low-achieving students often spoke about things like “camps,” “sports,” and “playing with friends,” which did not appear to be connected with school-year learning. On the other hand, high-achieving students more often spoke about activities like “reading,” “studying new things,” or “summer camps,” which were connected to their school-year learning.

Qualitative Results

After grouping and analyzing the data by research question and participant, I coded the data according to achievement status (high- versus low-achieving) and summer achievement (summer loss versus summer growth) (see Table 4.37 below). This helped to answer my third research question (what are the summer experiences of low- versus high-achieving African American students?). To answer this question, I categorized the data into four categories: High-achieving/Summer Growth (A), High-Achieving/Summer Loss (B), Low-Achieving/Summer Growth (C), and Low-Achieving/Summer Loss (D).

Question 3: What are the summer experiences/activities of low- and high-achieving African American students?

High-achieving/summer growth (A). I conducted two interviews with students who were high-achieving African American students who had demonstrated academic growth over summer break (Table 4.37 below). Two commonalities that existed between these students were that they had active summers, and their experiences/activities had a connection to school learning.

These high-achieving students who experienced summer growth had had “active” summers. They spoke of doing many things over the summer. Participant eight (P8) articulated, “I went on many trips...I went to Cedar Point a couple of times, I went to Chicago once, I went to some beaches in Michigan a couple times.” However, traveling was not the extent of P8’s summer activities. P8 also discussed staying active around their house: “Well, I have a few friends in the neighborhood, so we just do things there; ride bikes, explore. We also did things like go to the movies sometimes, or go out to eat, and just things like that.”

Table 4.37

High-Achieving/Summer Growth Participants

Participant 8	Participant 9
1. I am glad	Teachers
2. Teachers; friends; class active	It's all worth something; not knowing other kids
3. Responsibility; homework; pay attention	study hard; pay attention
4. Many trips; read a lot	I did short films all summer; hung out with family
5. 1/3 of time away from home	No
6. Lots of trips	No
7. Summer band	No
8. 15 books	Two books
9. Summer band; trips learning; reading	Math skills
10. N/A	N/A
11. More trips, exotic locations, faraway	Creativity programs
12. No summer school; year round would help	No summer school; year round would help learning
13. Yes, in reading	Yes, by studying new things

Participant 9 (P9) also spoke similarly about his summer, saying “I did films all summer. They’re just basically – it’s a short film series that I’ve been running for – actually, we’re going into our second season now. I did it with a friend and one of my cousins.” P9 saw a connection between their summer film series and learning, stating “Well, yeah...I had to keep track of how long the thing will record for before we have to cut to the next scene. I improved my math, because I had to multiply and do all this other adding stuff.” The comments are different from what the literature says about summer learning, which mostly talks about summer reading as a way to grow over the summer. The qualitative data are important because it describes activities other than reading that African American students are involved in, which is “recognized” cultural capital and can result in summer academic growth.

Table 4.38

High-Achieving/Summer Loss Participants

Participant 4	Participant 6	Participant 10
1. Yes; Homework	Yes	Good; I like learning
2. Teachers; in school activities	New things; friends; bullies	Classes; friends; teachers
3. Paying attention; homework	Paying attention; teachers	Teachers; paying attention; wk hard
4. Atlanta; family reunion	St. Louis; family	Up North; summer band; wrk book
5. 3 days to one week	Just time w/grandfather	Just over to Aunt's
6. Ohio; Alabama; DC; family	No	Just to Aunts house to swim
7. Camp; active; discovery class	No	Farmington Hills
8. Read a lot; 15 books	5-10 books	10 books
9. Florida; adapting to new places	Summer Band	No not really
10. N/A	Swimming, Band	N/A
11. London, Hawaii, France	N/A	N/A
12. Summer reading club	More learning year round	Year round beneficial
13. Mom quizzes me on math	N/A	Yes, work book

High-achieving/summer loss (B). I interviewed three students who were high-achieving students who experienced summer learning loss (Table 4.38). Although this group of students experienced summer loss, their summer activities were similarly aligned with group A's. Additionally, it was not surprising that these high-achieving students experienced summer loss due to not having access to the cultural capital that schools provide. This is supported by Bourdieu (1986) who argued that capital could be acquired through formal schooling.

These high-achieving students articulated that their travel also took them too many different places. Travel experiences were usually out-of-state or involved traveling a great distance from their homes. Participant 4 had the summer experience of “a 12-hour drive all the

way down to Atlanta, Georgia, or Marietta, Georgia, for our family reunion. We stayed in this hotel. It was a little condo thing. It was really pretty.” Similarly, participant 6 (P6) mentioned that “last summer, we went down to St. Louis to visit my family. My dad went down there to take care of my grandfather.” While in St. Louis, P6 stayed active with summer activities, reminiscing, “we went ice skating...roller blading and swimming...we went to the movies. Then, the rest of the time I was down there, we just had a big feast and had family time.” Also, participant 10 (P10) talked about her summer activities: “I went to my grandma’s house up north. I went swimming a lot at my aunt’s house and my cousin’s house too.” Clearly, the qualitative data describe the summer activities that high-achieving African American students are involved in over summer vacation. The qualitative data also confirm the findings of my quantitative data analysis, which identified the importance of summer travel and how it may be connected to the “recognizable” cultural capital.

Low-achieving/summer growth (C). I interviewed three students who were in the low-achieving/summer growth category (Table 4.39 below). These students tended to have many summer experiences and did more summer reading compared to group D; however, their experiences were more local than those of high-achieving students. Participant 2 (P2) talked about summer and “usually going to Detroit with our family on my dad’s side.” P2 discussed going to Detroit for “family reunions,” but also, while there, “she’ll [Aunt] leave her phone with me cuz she had her job phone number in her phone. She’ll leave it with me there. I’ll be watchin’ TV. Sometimes I’ll wait till she comes back.”

Table 4.39

Low-Achieving/Summer Growth Participants

Participant 2	Participant 5	Participant 7
1. Good	I feel like I'm learning more	It's going OK
2. Teachers	Drama	Reading; seeing friends; drama
3. Focus	Open mind	Drama
4. Detroit, family/reunion	Stay in house; TV; friends	sleep in, read
5. Detroit for whole summer	Out of town-Detroit	N/A
6. Only Detroit	Albion and Detroit	Michigan Adventures; Full Blast
7. Summer school; camp	No	Not on any team
8. Reading; bunch of books	Two books	three books
9. Reading helps with school	Not really, summer hasn't help	Yes, Reading
10. N/A	School helps	N/A
11. Be alone	Alabama, Hawaii	Cedar Point and Miami and Ocean
12. No Year Round School	New friends; didn't learn a lot	Went to camp; journal writing
13. Yes because mom teaches	No because don't learn summer	Yes, summer school and math

Participant 5's (P5's) and Participant 7's (P7's) activities were more stagnant. P5 summarized their summer vacation by saying, "I didn't really do nuttin' except for staying in the house, watch TV, or go outside and hang out with my friends. I usually had people come over." Similarly, P7 described their summer vacation by saying, "For my summer...I sleep in." These summer activities are quite different from those that high-achieving students described in their summer vacation interviews. This confirms what Heyns (1978) believed: summer travel can have some association with academic achievement. This also supports Yosso's (2005) position, which articulated the experience or cultural capital for some individuals go unrecognized. Additionally,

this qualitative data confirmed the quantitative findings, suggesting a difference in the nature of summer travel between low- and high-achieving African American students.

Table 4.40

Low-Achieving/Summer Loss Participants

Participant 1	Participant 3
1. Yeah, a little	I love coming to school.
2. Friends; teachers	Lunches
3. Teacher	Be responsible
4. Sleep in	Detroit; Home; Watch TV
5. Time between mom & dads	Rest of the summer at home
6. Michigan Adventures	Summer at home
7. Sports activities	No
8. No	No reading over summer
9. Helps me stay focused	No summer experience help
10. History Math help	N/A
11. Different water parks	N/A
12. No summer school	No summer school
13. No. we didn't read:	No. it caught me off track

Low-achieving/summer loss (D). Last, there were two low-achieving/summer loss students who I interviewed regarding their summer experiences (Table 4.40). Similar to P5's and P7's summers, these students' summers tended to be more local and stagnant. Participant 1 (P1) described their summer, saying "well, I sleep in. When I wake up, I go to the park, play basketball. Or sometimes we play football in the backyard, go swimming sometimes and stuff. Or on the weekends, my mom don't gotta work, she take us out to go get ice cream and stuff." Similarly, participant 3 (P3) described their summer by saying, "I went to Detroit to my cousin's birthday, and have fun and all that...I watch TV. I go in the front yard and dribble a basketball and all that. I go to my friend's house." The qualitative data add to previous literature on

summer learning. Previous research has simply taken a quantitative approach to the summer activities of students and has not attempted to compare the summer activities of low- versus high-achieving African American students through a qualitative approach.

Question 4: Which summer experiences/activities contribute to summer learning?

After analyzing the student responses in Tables 4.37-4.40, the summer experiences/activities that contributed to summer learning seemed to be those experiences/activities that were connected to school.

High-achieving/summer growth students spoke about how their summer activities were connected to their school-year learning, which is building cultural capital. P8 stated, “Over the summer I did a few things. During the beginning of the summer I did summer band, which I’ve done every summer I’ve been here [at the middle school].” P8 went on to describe the significance of attending this summer band camp: “It’s pretty much the whole month of June and a little bit in July. We just get ready for this year’s band, and just, yeah, playing different music.” From P8’s statement, you can clearly see how his summer learning was connected to their school-based learning.

P9 articulated their summer learning by saying, “My learning continued...just by studying newer things I see. If I take an interest in it, I wanna study it and learn about it.” Similar to participant 8, his summer learning continued by being active and having his learning connected to school-based learning or his personal interests.

As seen with high-achieving students P8 and P9, their learning was connected to school-based learning. P10 described her summer learning by saying, “I did a workbook, and it kept my mind fresh when I got back to school, I remembered a lot of stuff.” Also, P10 talked about participating in a summer band and how it helped when they went back to school, “I already

knew then – it helped me know already how to take care of my instrument and stuff and know the notes. Then I could play a lot harder stuff.”

Also, it is important to talk about how low-achieving/summer growth students P2, P5, and P7 viewed their summer learning. When asked if they felt their summer learning continued, P2 stated, “Yes, because my mom teaches us stuff, about growing up, about having a boyfriend.” Admittedly, I see the value in having those types of discussions with our students, but these sorts of conversations are not connected to school learning like those discussed by the high-achieving students. P5 did not believe her learning continued over the summer, saying, “No, because you don’t really learn anything over the summer.” On the other hand, P7 believed her learning did continue, stating, “Yes, because of summer school and learning math. It helps me remember things...get more experience with math.” This could be a valuable learning experience, but not many high-achieving African American students attend summer school.

Moreover, when discussing their summer learning, P1 did not feel that her learning over the summer continued, saying “No, because we don’t read or study.” Additionally, P3 stated, “No. It had caught me off track. When I was between summer, and I started back to school, I just didn’t really know much and all that.”

Qualitative Summary

In conclusion, low- and high-achieving African American students had a lot of summer experiences and were involved in a variety of summer activities. Both groups were involved in many of the same activities, such as reading, playing organized sports, attending summer camps, and taking a variety of small trips. However, some differences did emerge. Low-achieving African American students’ experiences/activities tended to be more local, whereas high-achieving African American students were exposed to a broader array of experience/activities.

Additionally, low-achieving African American students more often reported stagnant activities/experiences, such as “sleeping in,” “watching TV,” or “staying in the house,” whereas high-achieving African American students were more likely to report active and dynamic activities, such as out-of-state travel, “Salvation Army Camp,” “King Center Program,” or “Summer Band.” With that said, this is significant because it supports what Yosso (2005) articulated, there are experiences/activities for schools and student achievement that are recognized while others go unrecognized.

The summer experiences that contributed to summer learning were those that were connected in some way to school-year learning. High-achieving African Americans more clearly articulated ways that their summer learning continued over the summer. In doing so, they often spoke about learning experiences/activities such as “reading,” “activities of interest,” or “new travel experiences.”

Last, learning is a continuous process. When school is out for summer vacation, it does not mean that learning is discontinued. Summer is a time when students are building the cultural capital which translates into academic success. High-achieving African American students are able to access the necessary summer capital to ensure that learning continues. However, the cultural capital that low-achieving African American students acquire over the summer is not translating to academic success. Chapter 5 discusses cultural capital and its translation into summer growth for low- versus high-achieving African American students. More importantly, Chapter 5 discusses how summer capital can be built to reduce summer learning loss.

CHAPTER 5: DISCUSSION

This chapter begins with a summary of my study, including an overview of the problem, the purpose of the research, and the research questions that were answered. Next, I review the methodology of my research and provide a summary of my findings. Then, I discuss my findings in relation to the existing literature and my theoretical framework. Finally, I present some limitations, implications, and recommendations for further research.

Summary of the Study

Overview

My research explored the differences in summer experiences between low- and high-achieving African American students and the impact of those experiences on academic achievement. Many studies have focused on the achievement gap between black and white students, and on how summer learning loss affects black and white students, but a gap in the research exists in understanding how low- versus high-achieving African American students spend their summer vacations. This research is necessary to increase the academic performance of African American students, and to capture the perspective of low- and high-achieving African American students through a qualitative approach. Therefore, my research sought to answer the following questions:

1. How does school-year learning loss/growth affect low- versus high-achieving African American students?
2. How does summer learning loss/growth affect low- versus high-achieving African American students?

3. What are the summer experiences/activities of low- versus high-achieving African American students?
4. Which summer experiences/activities contribute to summer learning for low- versus high-achieving African American students?

Methodology Review

To answer the above questions, my research used a mixed methods approach. Phase I answered the four research questions through a quantitative approach. Sixth-, seventh-, and eighth-grade students were surveyed about their summer experiences/activities. These survey results were collected and analyzed quantitatively. Phase II answered research questions three and four to give student voice to the summer experiences/activities and learning of low- and high-achieving African American students. Low- and high-achieving African American students were randomly selected and interviewed about their summer vacation. These interviews were transcribed, coded, and analyzed as part of a qualitative process. The findings of my mixed methods research are summarized below.

Summary of Major Findings

First, my research found that there was no significant difference in school-year academic growth in the area of mathematics or reading between low- and high-achieving African American students. Second, summer academic loss appeared to affect low- and high-achieving African American students similarly. The majority of African American students experienced academic loss when school was out for summer vacation. Low- and high-achieving African American students exhibited about the same amount of summer learning loss in reading; however, a statistically significant difference in summer learning loss in mathematics did also emerge between these two groups. Third, summer camps and the nature of summer travel

(traveling for family or pleasure) were found to be associated with the academic achievement of low- versus high-achieving African American students. Fourth, there were no summer activities that had a statistically significant impact on student achievement. Fifth, the data suggested that the summer experiences/activities that did have an effect on student achievement were the ones that were connected to school learning.

Discussion of Findings

My research was about understanding and improving the academic achievement of African American students, who are often overlooked or misrepresented. Previous studies have compared the achievement of African American students to other ethnic groups, specifically white students. This has always resulted in a deficit view of the learning of African American students. However, my research was different from previous studies because it looked at school-year learning and summer learning within the African American population. To accomplish this task, I looked at the learning of low- versus high-achieving students during the school year and over summer vacation. Additionally, I looked at the summer activities that low- versus high-achieving students were involved in and which activities resulted in academic achievement.

School Growth/Access

The school year provides access to capital that is necessary for academic achievement. When school is in session, it provides all students the opportunity to learn. An overwhelming number of researchers have found that students grow academically during the school year. Beggs and Hieronymus (1968) found a growth rate of one-tenth yearly academic growth each month. Similarly, Soar and Soar (1969) reported school-year gains in all tested subject areas. More importantly, Heyns (1978) has reported, “The data clearly support the contention that schooling makes a substantial contribution to cognitive growth” (p. 187). My research findings

correspond with those in the literature above. I found that low- and high-achieving African American students grew academically during the school year at similar rates in both reading and mathematics. These data findings support Bourdieu's (1977) theory that "dominant" cultural capital can be acquired during formal schooling. This means that while schools are in session, African American students have access to this "dominant" form of cultural capital. My research adds to this discussion by solely focusing on low- and high-achieving African American students and their growth during the school year in mathematics and reading. Also, it adds to the discussion by comparing low- versus high-achieving African American students' summer experiences/activities and how those experiences/activities are translating into academic success.

Summer Capital Loss

When school breaks for the summer, African American students lose access to the capital necessary for academic success. Therefore, the vast majority of African American students experience summer learning loss. The majority of literature supports the idea that academic learning loss occurs for all students over the summer. In the more recent studies, authors such as Heyns (1978), Entwisle and Alexander (1992), Cooper et al. (1996), Downey et al. (2004), Alexander et al. (2007), and Moore (2010) have all concluded that most students do experience summer learning loss. However, these studies compared learning loss across racial and SES lines. My research focused on the summer learning for low- versus high-achieving African American students. I found that there was no significant difference between the academic achievements of low- and high-achieving African American students over the summer in the area of reading. This means that both low- and high-achieving African American students experience summer academic loss in reading similarly. Additionally, I found that there was significant difference between the academic achievements of low- and high-achieving African American

students over the summer in the area of mathematics. This means that low-achieving African American students are affected by summer loss in mathematics when compared to high-achieving African American students. This adds to the discussion on summer learning because my research found that low- and high-achieving African American students experienced summer loss when they did not have access to the capital that schools provide.

Summer Activities – Recognized and Unrecognized

Although most students experience summer learning loss, my research sought to identify the summer experiences/activities that students were having which resulted in summer learning. Heyns (1978) had earlier found that summer reading has a positive effect on summer learning, but outside of Heyns' study, most of the literature on summer learning has adopted a deficit point of view. These studies have indicated reasons for why students experienced summer learning loss. For example, Entwistle and Alexander (1994) argued that summer loss was the result of home or neighborhood factors. Similarly, Downey et al. (2004) also suggested that low-SES students experienced summer loss as a result of their neighborhood or home circumstances. My research found that summer camps and summer travel have a significant association with improved academic achievement for low- and high-achieving African American students.

More importantly, many of the summer experiences that African American students are afforded over the summer are not recognized and do not result in student achievement. Cultural capital is built by the daily lived experiences of African American students. My quantitative research showed that low-achieving students experienced many summer activities similar to high-achieving African American students. However, the results were very different for low- versus high-achieving students. Yosso (2005) recognized that marginalized student groups and their experiences go unrecognized and unacknowledged. Burkham (2004) argued that high-SES

students gain access to this cultural capital by changing their cultural landscape or “habitus.” My research found that high-achieving students gained access to this capital by connecting their summer experience to their school-year learning. In summary, this means that schools can have a bigger impact by connecting the summer learning of low-achieving African American students to their school-year learning. This can be done by providing low-achieving students access to summer learning experiences that are connected to school-year learning or by connecting their school-year learning with their summer experiences.

Summer Experiences/Activities that Result in Summer Learning

Continuous learning can be seen through the summer experiences/activities that result in summer academic growth. This is significant because we know there are students who do not experience summer learning loss. Dewey (1938) recognized that learning is continuous, and it does not stop because students are on summer vacation. My quantitative research found that low- and high-achieving African American students had many experiences/activities that were similar. However, through student interviews I was able to determine the experiences/activities that were making a difference for the high-achieving African American students. These students were able to access summer activities that were valued by schools and that resulted in later academic achievement. Yosso (2005) recognized this point too when he asked, “Whose knowledge counts and whose knowledge is discounted?” This means that there are only certain summer experiences/activities over the summer that are going to result in student achievement. Those are the summer activities that are connected to school-year learning, or to the dominant cultural capital.

In conclusion, “Bourdieu asserts that cultural capital can be acquired two ways, from one’s family and/or through formal schooling” (Yosso, 2005, p. 76). My research found that

schools made the difference for low- and high-achieving African American students, because they had access to the cultural capital that results in student achievement. My findings identified similar school-year growth rates for both low- and high-achieving students. However, low- and high-achieving students experienced summer learning loss because they lost access to school and the “recognized” cultural capital. Additionally, Yosso (2005) defined culture as “behaviors and values that are learned, shared, and exhibited by a group of people.” My study found many similar summer experiences/activities for low- versus high-achieving African American students. Nonetheless, the summer activities that resulted in summer learning were those activities that were connected to the school’s cultural capital or school-year learning. Flores-Vance (2013) supports this position saying, “Academic achievement at any point is a cumulative function of current and prior family, community and school experiences. On one hand, upper- and middle class students who display strong family cultural capital that is congruent with the school’s cultural capital are better able to enjoy academic achievement” (p.76).

Limitations

The major limitation of this study was in the identification of students who experienced summer learning loss or growth. This is a limitation due to the testing schedule for the NWEA MAP. Generally, testing is done in September and May, but there is still teaching that is involved before students take the test in September and after students take the test in May. This extra teaching on either side of the exams may bias the results of my summer learning loss or growth calculations.

Another limitation of this study involves the other school interventions that African American students may be receiving throughout the school year. School-year and summer learning is assumed to have been the result of classroom instruction, but these metrics do not

take into account other learning that may be happening in school and out of school. For example, it is possible that students are receiving academic supports during the school day, one-on-one tutoring, or some form of after-school tutoring.

A final limitation of this study has to do with the nature of testing in general. A single standardized test is a snapshot of the student's academic ability on one given day. It is possible, therefore, that the test could have been given on a bad day for the student when the student had difficulty focusing or was otherwise distracted. Additionally, we know that some students are not good test takers and that their scores are not always a true indication of what they know or do not know. Thus, by relying on standardized test scores, my study inherently has some error included in its results.

Implications

Theoretical Implications

Understanding which summer activities result in summer academic growth can help us break the pattern of summer loss that African American students experience. By identifying the most positive summer activities, we can begin to make sure that students are provided with summer interventions and opportunities that result in summer and school-year growth. Therefore, we may be able to begin ensuring that African American students do not experience summer learning loss and do not fall behind academically. If schools are able to stop students from falling behind over the summer, students will be on grade level during the school year and have a better educational experience. More importantly, more students will receive a quality education.

Implications for Action

Learning is a continuous process. African American students have a variety of different summer experiences/activities, but those experiences/activities do not equally result in academic achievement or summer learning. This is because not all of the experiences/activities of students are recognized and valued by schools. Therefore, one solution to increase student achievement for African American students is to provide access to the cultural capital which results in academic achievement over the summer. Additionally, schools must incorporate the summer experiences of African American students into their school learning/lessons. This is what is meant by having a culturally responsive curriculum/instruction. These two tasks can be done through redesigning the way we offer summer school, and by making sure our educators are culturally responsive during the school year. Summer school should be about providing learning opportunities for all students that they may otherwise not have. These summer opportunities should be in alignment with the school-year curriculum that students are expected to know. Additionally, educators need to make sure they are being culturally responsive and are incorporating the diverse backgrounds of their students into their classroom learning strategies. Students need to see themselves in the content they are learning. If schools can accomplish these two goals, summer and school-year achievement will significantly improve.

Recommendations for Further Research

Further research is needed with regard to the summer programs that expose students to the cultural capital experiences/activities that are recognized by the dominant culture. Equally, further research is needed surrounding those summer activities that are going unrecognized and how those summer experiences may be contributing to student achievement. More specifically,

a deeper understanding is needed on those high-achieving students that experience summer learning loss and those low-achieving students that experience summer growth.

Additionally, further research is needed about schools which have a culturally responsive curriculum and are making efforts to incorporate the experiences/activities of their students into the classroom. Research in these two areas will improve summer and school-year learning for African American students and help close any existing achievement gaps between low- and high-achieving African American students.

Conclusion

Schools are under tremendous pressure to increase the academic proficiency of students. To do this, schools depend on data to drive the decision-making process. This means that the data ought to tell schools where and how they can improve. My research has examined the academic achievement of low- versus high-achieving African American students. I found that both low- and high-achieving African American students make similar gains during the school year. However, during summer vacation, African American students experience summer learning loss. This is because most African American students lose access to the necessary cultural capital which results in academic achievement. Therefore, understanding the summer activities that African American students are involved in and the summer activities which result in academic achievement is essential. Schools need to provide access to these cultural capital activities for African American students over the summer, and teachers need to incorporate the summer experiences of African American students in their classrooms and lessons.

Final Remarks

In an interview (2014) regarding his *Illmatic* album success, I listened to Nas describe his approach to music. He indicated that he wanted to approach music just the way he was: “It’s

with the Timberlands, the Army jacket...just the way we are outside. I want to put that into the record.” He sought to tell a story (musically) that was different from others before him. Nas wanted “to talk about that kid on the corner...that kid that wasn’t on stage. I wanted the stage to come to him – on the block.” To improve education and close any existing achievement gaps, we must take the same approach as Nas. We must research and give voice to those kids on the block, the students who are often silenced, marginalized, or misrepresented. We will only improve education by bringing the stage to the students.

APPENDICES

Appendix A

Letter Seeking Permission to Conduct Research

Dear Superintendent [REDACTED],

As we have previously discussed, I am a doctoral candidate at Michigan State University in the K-12 Educational Administration program. The purpose of my letter is to request permission to conduct research in [REDACTED]. If allowed, my research will involve collecting student achievement data, Northwest Evaluation Association (NWEA) Measures of Academic Progress (MAP) testing data, surveying students about their summer experiences, and interviewing 8-10 African American students. All research data will be collected at the middle school only. My research interest involves closing the achievement gap through understanding students' summer learning loss/growth. With your permission to conduct this research, I will be able to gain a better understanding of the summer experiences that contribute to or impede the summer learning of African American students.

I have chosen [REDACTED] because of the demographics and my knowledge of the existing racial achievement gap. With your permission, I will collect and analyze two years of MAP testing data for Middle School at Parkside. This will allow me to identify which students are affected by summer learning loss or growth. Additionally, with support from the building principal, I will survey all students inquiring about their summer experiences and the activities they were involved in. Last, I will seek to interview 8-10 African American students to discuss further their summer experiences and how they continue their learning over summer vacation. More importantly, it will be my priority to make certain that I limit any disruptions to the students' and teachers' daily routines.

Students will experience minimal risks and discomforts, if any, from their voluntary participation in this study. In educational research, according to Michigan State University, "minimal risk" is defined as the probability and magnitude of harm or discomfort anticipated in the research are not greater in and of themselves than those ordinarily encountered in daily life or during the performance of routine physical or psychological examinations or tests. Nonetheless, parent consent and student ascent will be obtained where appropriate. Also, a student or parent may choose not to participate at any time during the research process. All such requests will be honored. More importantly, I will maintain the students' confidentiality throughout the research study, and I will not reveal anything beyond general findings and trends. All consent forms, test data, and interviews will be kept in a locked filing cabinet or on my personal password protected computer.

This proposed research project has been submitted for approval by Michigan State University's Institutional Review Board (IRB), to ensure that appropriate measures are taken to protect all individuals involved. However, if you deem it necessary for me to take any additional steps or measures as district protocol, I would be more than willing to do so. If you have additional questions, please feel free to contact me, at [REDACTED], or my advisor, Dr. Muhammad Khalifa, at [REDACTED].

Sincerely,

William Patterson
Doctoral Candidate
K-12 Educational Administration
Michigan State University

Appendix B

SUMMER EXPERIENCES SURVEY

Hello! My name is William Patterson, a doctoral candidate at Michigan State University. You are being asked to participate in a summer experiences/activities survey. This survey is voluntary. The purpose of this research study and survey is to determine the summer experiences or activities that students are having, which also result in academic achievement. All responses will remain confidential throughout the research study. **Thank you for taking the time to participate in this short survey!**

1. Please write-in your student ID# below.

2. What grade are you in?

- ☐ 6th grade
- ☐ 7th grade
- ☐ 8th grade

3. What is your gender?

- ☐ Male
- ☐ Female

4. What is your ethnicity?

- ☐ Black or African-American
- ☐ White or Caucasian
- ☐ Hispanic
- ☐ Asian
- ☐ Other

5. This past summer, did you attend summer school?

- ☐ Yes
- ☐ No

6. Were you involved in organized sports over summer break?

☐ Yes (check all that apply)

☐ Basketball

☐ Soccer

☐ Baseball

☐ Football

☐ Tennis

☐ Other _____

☐ No, I did not participate in any organized sports (continue to question #7)

7. Did you travel over the summer?

☐ Yes

☐ No

8. Please describe the nature of your summer travel.

☐ To visit family

☐ A vacation for pleasure

☐ Both

☐ I did not travel this summer

9. If you did travel over summer break, please indicate the trip(s) taken. If you did not travel, please just leave blank.

10. Did you visit the library over the summer break?

☐ Yes

☐ No

11. Did you read independently over the summer?

☐ No

☐ Yes, one or two books

☐ Yes, three or four books

☐ Yes, five or more books

12. Did you participate in any of the following camps?

☐ Yes (check all that apply)

☐ Sports

☐ Church

☐ Band

☐ Girl or Boy Scouts

☐ Educational

☐ Other _____

☐ No, I did not participate in any summer camps (continue to question #13)

13. During summer break, how many days did you spend away from your home? Estimate.

☐ I stayed home all summer (0 days)

☐ Less than one week (1-6 days)

☐ One to two weeks (7-14 days)

☐ About one month (15-30 days)

☐ Most of the summer (30+ days)

14. Would you consider your summer vacation to have been fun?

☐ Yes

☐ No

☐ Undecided

15. Do you believe your learning still continued over the summer?

☐ Yes

☐ No

☐ Undecided

16. In what way(s) would you say your learning continued over summer vacation?

Thank you for participating!

Appendix C

Youth Assent to Participate in Research – Summer Experiences/Activities Survey

Hello! My name is William Patterson, a doctoral candidate in the K-12 Educational Administration Program at Michigan State University. You are being asked to participate in a summer experiences/activities survey, given to all students at Middle School at Parkside. However, your participation in this research study is voluntary. You may opt-out of taking this survey, at any time, if you so choose.

EXPLANATION OF THE RESEARCH and WHAT YOU WILL DO

The purpose of this study is to better understand which, if any, summer experiences/activities may be contributing to summer academic learning loss/growth. You will be surveyed regarding your summer experiences and activities that you may or may not have been involved in. The survey is 16 questions total and will take approximately 10-15 minutes. These surveys will be administered by one of your classroom teachers during the first week of school. All student survey responses will remain confidential and will be kept in a locked file or on a password protected computer.

YOUR RIGHTS TO PARTICIPATE, SAY NO, OR WITHDRAW

Students are at minimal risk and discomfort from their voluntary participation in this study. In educational research, according to Michigan State University, “minimal risk” is defined as the probability and magnitude of harm or discomfort, if any, anticipated in the research are not greater in and of themselves than those ordinarily encountered in daily life or during the performance of routine physical or psychological examinations or tests. Nonetheless, participation in this research is completely voluntary. You have the right to say no. You may change your mind at any time and withdraw. You may choose not to answer specific questions or to stop participating at any time. All requests will be honored. Additionally, whether you choose to participate or not will not have any effect on your grade or school standing.

More importantly, I will maintain your confidentiality throughout the research study and will not reveal anything beyond general findings and trends. All assent forms and individual surveys will be kept in a locked filing cabinet.

COSTS AND COMPENSATION FOR BEING IN THE STUDY

Participants in this research study will not receive any financial compensation for the completion of the summer activities survey. However, there will be the possibility of extra credit or participation points issued by individual classroom teachers. This will be discussed with the building principal, but will be decided by individual classroom teachers.

CONTACT INFORMATION FOR QUESTIONS AND CONCERNS

If you have any questions about this research, please feel free to contact William Patterson, at [REDACTED] or Dr. Muhammad Khalifa, at [REDACTED].

DOCUMENTATION OF STUDENT ASSENT

I understand the procedures described above. My questions have been answered to my satisfaction. Please check the appropriate box below and sign.

☐ I, _____, agree to participate in the summer experiences/
Please Print Name
activities survey.

☐ I, _____, would like to “opt-out” of the summer
Please Print Name
experiences/activities survey.

Student Signature _____ Date _____

Appendix D

Parent Permission for Minor to Participate in Research – Summer Experiences/Activities Survey

Dear Parent/Guardian:

Hello! My name is William Patterson, a doctoral candidate in the K-12 Educational Administration Program at Michigan State University. You are being asked to allow your child to participate in a summer experiences/activities survey, given to all students at Middle School at Parkside. However, your child's participation in this research study is voluntary. You and/or your child can opt-out of taking this survey, at any time, if you so choose.

EXPLANATION OF THE RESEARCH and WHAT YOU WILL DO

The purpose of this study is to better understand which, if any, summer experiences/activities may be contributing to summer academic learning loss/growth. Students will be surveyed regarding their summer experiences and activities they may or may not have been involved in. The survey is 16 questions total and will only take approximately 10-15 minutes. These surveys will be administered by one of your child's classroom teachers during the first week of school. All student survey responses will remain confidential and will be kept in a locked file or on a password protected computer. **You will only need to sign and return this form if you would like to "opt-out" your child from participating in this survey.**

YOUR RIGHTS TO PARTICIPATE, SAY NO, OR WITHDRAW

Students are at minimal risk and discomfort from their voluntary participation in this study. In educational research, according to Michigan State University, "minimal risk" is defined as the probability and magnitude of harm or discomfort, if any, anticipated in the research are not greater in and of themselves than those ordinarily encountered in daily life or during the performance of routine physical or psychological examinations or tests. Nonetheless, participation in this research is completely voluntary. You have the right to say no. You may change your mind at any time and withdraw. You may choose not to answer specific questions or to stop participating at any time. All requests will be honored. Additionally, whether you choose to participate or not will not have any effect on your child's grade or school standing.

More importantly, I will maintain the students' confidentiality throughout the research study and will not reveal anything beyond general findings and trends. All consent forms, test data, and interviews will be kept in a locked filing cabinet or on my personal password protected computer.

COSTS AND COMPENSATION FOR BEING IN THE STUDY

Participants in this research study will not receive any financial compensation for the completion of the summer activities survey. However, there will be the possibility of extra credit or participation points issued by individual classroom teachers. This will be discussed with the building principal, but will be decided by individual classroom teachers.

CONTACT INFORMATION FOR QUESTIONS AND CONCERNS

If you have any questions about this research, please feel free to contact William Patterson, at [REDACTED] or Dr. Muhammad Khalifa, at [REDACTED].

DOCUMENTATION OF INFORMED CONSENT

Your signature below is requested only if you would NOT like your child to participate in this summer experiences survey. Please check the box below, with your child's name included, and sign if you would like your child to opt-out of participating in this survey. Please have your child return this signed document to their classroom teacher to be excluded from participating in the survey.

By not signing and returning this form, you give your child permission to voluntarily participate in the summer activities survey. All responses will remain confidential and nothing more than general findings and trends will be revealed.

☐ I do not agree to have my child, _____, complete the summer experiences/activities survey.

Name of Parent or Legal Guardian _____
(Please Print Name)

Signature of Parent or Legal Guardian _____

Date _____

Appendix E

Summer Experiences – Interview Questions

1. Are you glad to be back to school? How do you feel you do in school?
2. What do you like about school? What do you dislike about school?
3. What do you think it takes to do well in school?
4. Tell me about your summer vacation?
5. How much time do you spend away from home versus at home?
6. Do you and/or your family travel over the summer break? If so, where? Is this traveling opportunity for pleasure or to visit family?
7. Did you participate in any extra-curricular activities? If so, what?
8. Do you work or volunteer over summer break?
9. Do you read over the summer?
10. Do you believe your summer experiences help you in school? If so, in what way?
11. What type of activities outside of school do you think helps you with school?
12. What kind of activities are your friends involved in over the summer?
13. If you could do anything you wanted over the summer, what would you choose to do?
14. Do you see any similarities in the type of activities you are involved in versus some of your friends? Any differences?
15. Why do you think you experienced summer achievement growth? Loss?

Appendix F

Youth Assent to Participate in Research – Summer Experiences/Activities Interview

Hello! My name is William Patterson, a doctoral candidate in the K-12 Educational Administration Program at Michigan State University. You are being asked to participate in a summer experiences/activities interview, given to randomly selected students at Middle School at Parkside. However, your participation in this interview and research study is voluntary. You may choose to not participate, at any time, in this interview - if you so choose.

EXPLANATION OF THE RESEARCH and WHAT YOU WILL DO

The purpose of this study is to better understand which, if any, summer experiences/activities may be contributing to summer academic learning loss/growth. You will be interviewed regarding your summer experiences and activities that you may or may not have been involved in. The interview is 15 questions total and will take approximately 25-30 minutes. This will be a one-on-one interview, conducted by myself, to be completed by October 1, 2014. All student interviews will be recorded and transcribed for accuracy, but will remain confidential and locked in a file or on a password protected computer.

YOUR RIGHTS TO PARTICIPATE, SAY NO, OR WITHDRAW

Students are at minimal risk and discomfort from their voluntary participation in this study. In educational research, according to Michigan State University, “minimal risk” is defined as the probability and magnitude of harm or discomfort, if any, anticipated in the research are not greater in and of themselves than those ordinarily encountered in daily life or during the performance of routine physical or psychological examinations or tests. Nonetheless, participation in this research is completely voluntary. You have the right to say no. You may change your mind at any time and withdraw. You may choose not to answer specific questions or to stop participating at any time. All requests will be honored. Additionally, whether you choose to participate or not will not have any effect on your grade or school standing.

More importantly, I will maintain your confidentiality throughout the research study and will not reveal anything beyond general findings and trends. All consent forms, test data, and interviews will be kept in a locked filing cabinet or on my personal password protected computer.

COSTS AND COMPENSATION FOR BEING IN THE STUDY

Participants in this research study will a \$20 gift card to Amazon as a small token of appreciation. These gift cards will be given at the conclusion of all conducted interviews.

CONTACT INFORMATION FOR QUESTIONS AND CONCERNS

If you have any questions about this research, please feel free to contact William Patterson, at [REDACTED] or Dr. Muhammad Khalifa, at [REDACTED].

DOCUMENTATION OF STUDENT ASSENT

Your signature below indicates that you understand the information and procedures above and that you voluntarily agree to participate in this student interview and research study.

Name of Student _____
(Please Print Name)

Signature of Student _____

Date _____

Appendix G

Parent Permission for Minor to Participate in Research – Summer Experiences/Activities Interview

Dear Parent/Guardian:

Hello! My name is William Patterson, a doctoral candidate in the K-12 Educational Administration Program at Michigan State University. You are being asked to allow your child to participate in a summer experiences/activities interview, given to randomly selected students at Middle School at Parkside. However, your child's participation in this research study is voluntary. You and/or your child can opt-out of participating, at any time, in this interview - if you so choose.

EXPLANATION OF THE RESEARCH and WHAT YOU WILL DO

The purpose of this study is to better understand which, if any, summer experiences/activities may be contributing to summer academic learning loss/growth. Students will be interviewed regarding their summer experiences and activities that they may or may not have been involved in. The interview is 15 questions total and will only take approximately 25-30 minutes. This will be a one-on-one interview, conducted by myself, to be completed by October 1, 2014. All student interviews will be recorded and transcribed for accuracy, but will remain confidential and locked in a file or on a password protected computer.

YOUR RIGHTS TO PARTICIPATE, SAY NO, OR WITHDRAW

Students are at minimal risk and discomfort from their voluntary participation in this study. In educational research, according to Michigan State University, "minimal risk" is defined as the probability and magnitude of harm or discomfort, if any, anticipated in the research are not greater in and of themselves than those ordinarily encountered in daily life or during the performance of routine physical or psychological examinations or tests. Nonetheless, participation in this research is completely voluntary. You have the right to say no. You may change your mind at any time and withdraw. You may choose not to answer specific questions or to stop participating at any time. All requests will be honored. Additionally, whether you choose to participate or not will not have any effect on your child's grade or school standing.

More importantly, I will maintain the students' confidentiality throughout the research study and will not reveal anything beyond general findings and trends. All consent forms, test data, and interviews will be kept in a locked filing cabinet or on my personal password protected computer.

COSTS AND COMPENSATION FOR BEING IN THE STUDY

Participants in this research study will a \$20 gift card to Amazon as a small token of appreciation. These gift cards will be given to the students at the conclusion of all conducted interviews.

CONTACT INFORMATION FOR QUESTIONS AND CONCERNS

If you have any questions about this research, please feel free to contact William Patterson, at [REDACTED] or Dr. Muhammad Khalifa, at [REDACTED].

DOCUMENTATION OF INFORMED CONSENT

Your signature below indicates that you understand the information and procedures above and that you voluntarily agree for your child to participate in this research study.

☐ I agree to allow my child, _____, to be interviewed regarding their summer learning experiences.

☐ I do not agree to allow my child, _____, to be interviewed regarding their summer learning experiences.

Name of Parent or Legal Guardian _____
(Please Print Name)

Signature of Parent or Legal Guardian _____

Date _____

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