The Effects on African American Students Attending an After School Homework Club on Reading Comprehension

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Abstract

The purpose of this study was to examine the effectiveness of an after school homework club on improving the reading decoding and comprehension scores of African American students in grades kindergarten and one on the Dynamic Indicators of Basic Early Learning Skills (DIBELS) Next assessment and in grades two through five on the Anne Arundel County Public School Reading and Language Arts Benchmark Assessments. The results of this study indicate that there was no change for African American students in grades kindergarten and 1st compared to their peers who were assessed using the DIBELS Next benchmark scores. In grades 2 through 5, although there were slightly improved scores for African American students who participated in the homework club, the overall data did not reflect a statistically significant difference on the AACPS Reading and Language Arts Benchmark Assessments. Further research is needed to determine if extended student participation with consistent attendance in the homework club would increase reading achievement for African American students.

CHAPTER I

INTROUCTION

The achievement gap in our country can be defined as the disproportional gains in academic performance among diverse student groups. In 2001, the No Child Left Behind Act was passed, which brought national awareness to the public about the increasing achievement gaps in education between White students and their counterparts. The act mandated accountability at the federal level. States and individual school districts were required to now take a hard look at why specific student groups were underperforming in reading and math. Most of the data focused on the performance of African American and Hispanic students. This new heightened awareness led to an increase in interventions targeting students within the achievement gap. Although great strides have been made in increasing the performance on standardized tests for these students, more than a decade later, the achievement gap still exists between these student groups and their white peers. According to the National Center for Education Statistics, in both 2009 and 2011, African American students trailed their white peers by an average of more than 20 test-score points on reading assessments at 4th and 8th grades, a difference of about two grade levels (Aud, et al., 2011) (Planty, et al., 2009). Research indicates that the achievement gap is compounded by a student's socioeconomic status. According to 2009 data from the US Census Bureau, of all children younger than 18 living in families, 15.5 million live in poverty. Poverty was defined as a family of four with less than $21,947 per year. This statistic includes one in three African American children (Hernandez, 2011). By the age of 3, children in poverty have smaller vocabularies and lower language skills than children from middle-income families. Research has also shown that dropout rates tend to be higher for children who live in poverty. According to the U.S. Department of Education's 2011 *Condition*

of Education report, about 68% of 12th-graders in high-poverty schools graduated with a diploma in 2008, compared with 91% of 12th-graders in low-poverty schools (Aud, et al.). According to a study conducted by the Annie E. Casey Foundation, children who both live in poverty and read below grade level by 3rd grade are three times as likely to not graduate from high school as students who have never been poor (Hernandez, 2011).

College graduation being a prerequisite for 21st century careers in technology, medicine, and economics, then what opportunities are lost for an African American student who does not have a high school diploma? In a 2012 news release by the U.S. Bureau of Labor Statistics, African American youth not enrolled in school had an unemployment rate of 28.5% in October 2011, higher than the rates for their white counterparts of 15.3% (http://www.bls.gov/news.release/hsgec.nr0.htm). Without the ability to break free of their socioeconomic status, these same students are left to the welfare system or worse, a life of crime and incarceration. With so much at risk for our African American students as they enter secondary education, more needs to be done to ensure that they are not only statistically successful in their academic performance, but that they are emotionally linked to their success in their academic abilities during their elementary school experience.

Literacy education is a key component for any student's academic performance and success. Without the understanding of reading and comprehension strategies, and their application, students are unable to unlock questions that they encounter on math and reading achievement tests. Each school system generally is charged with adopting a core reading program that can be utilized with fidelity throughout the elementary grades on a daily basis. Students who have difficulty meeting the grade level expectation of the state standards, and now, national standards, are traditionally tested in some manner and placed in a separate reading

intervention. The interventions are based on the intensity of the student's instructional need. Tier one interventions usually occur within the classroom in which a student is given scaffolded support utilizing the core program in reaching mastery of a reading skill. Tier two interventions address specific needs of students who are generally within one year below their grade level in mastery. Tier three interventions are the most intensive and are targeted to specific students who have not met with success in any of the previous tier one or two interventions, or are well below grade level in decoding and or comprehension.

Reading comprehension is a fundamental skill that if not acquired early, can impact a student's learning across the academic curriculum. Children's academic achievement in the early grades forecasts academic and mental health outcomes throughout their school years and into early adulthood (Hughes, Oi-man, & Lloyd, 2008). National research indicates that reading achievement is much more likely to be lower in African American students than other minority groups within our schools. The 2005 National Assessment of Educational Progress, NAEP, reported that white students in grades 4 and 8 continued to score higher on average in reading achievement than African American students in reading achievement. In grade 4, the gap was closed by two points between 2003 and 2005; however, it did not show a statistical difference between 1992 and the 2005 results (U.S. Department of Education, 2011). With little improvement being made in this reading achievement gap, it is crucial to look for methods to improve reading comprehension among the African American student group.

Statement of the Problem

What reading intervention, not requiring additional funding, could be offered to students performing below grade level in reading comprehension? This intervention will need to be especially appropriate for the African American students demonstrating difficulty in reading comprehension based on the AYP achievement gap data. The intervention will also need to help students develop intrinsic motivation to become successful in the area of literacy.

Null Hypothesis

There will be no statistically significant difference in the performance of the African American students who participated in an intervention program on the first versus the second administration of the Anne Arundel County Public Schools (AACPS) Reading and Language Arts Benchmark assessments when their performance is compared to the performance of African American students who did not participate in the program on the AACPS Reading and Language Arts Benchmark assessments. In addition, there will be no statistically significant difference on the performance of those African American students in kindergarten and first grade on the DIBELS Next assessments when their performance is compared to the performance of peers who did not participate.

Operational Definitions

For the purpose of this study, student "performance" was operationally defined as the students' reading comprehension score on the first AACPS Benchmark exam taken in October 2012 and the score on the second AACPS exam taken in January 2013, as well as the benchmark scores for the first DIBELS Next given in October 2012 and the second administration in January 2013.

CHAPTER II

A REVIEW OF THE LITERATURE

This literature review seeks to explore existing research that has investigated the impact of various factors which tend to affect the reading comprehension, the various instructional strategies that have been used in the schools to teach reading comprehension, and the types of reading intervention programs for under-achieving students, and the existing reading achievement gap that exists among African American students. The first two sections of this review will examine the definition of comprehension and the various instructional strategies that have been used to teach reading comprehension. The third section will examine the various types of reading interventions that have been used to teach reading comprehension to under-achieving readers. The final section will examine the current achievement gap that exists between African American students versus other students nationwide, along with the strategy of building relationships and assistance in homework as a way of improving reading comprehension and student achievement among under-performing students.

What is Reading Comprehension?

During students' development in the reading process, they must transition from learning how to read to reading to learn. Students typically begin this transition between grades 2 and 3 (Vacca,Vacca, Gore, Burkey, Lenhart, McKeon,, 2003). This independent act of reading to understand and extract information is thought to be the student's ability to comprehend text. Reading comprehension can be defined as a process in which readers construct meaning by interacting with text through the combination of prior knowledge and previous experience, information in the text, and the stance the reader takes in relationship to the text (Pardo, 2004). It is the ability to develop a more complete understanding of what is read, to connect information

in the text with knowledge and experience, and to examine content by critically evaluating, comparing and contrasting, and understanding the effect of such features as irony, humor, and organization (Applegate, Applegate, McGeehan, Pinto, & Kong, 2009). Fluent readers possess the ability to think about a text beyond its literal interpretation. They are able to interact with text and react to what they have read. They do this by thinking within the text: utilizing decoding strategies, self-monitoring and correcting to make sense of text, summarizing important information and disregarding irrelevant information, maintaining fluency, and adjusting their levels as appropriate to the purpose for reading and type of text. They also utilize reading processes to think beyond the text by "predicting by using what is known to think about what will follow, making connections to their personal experiences, the world, and other text, making inferences to understand what is implied, and synthesizing what has been read to create a new understanding." (p. 18) They also process and comprehend by critically examining their thinking about the text through "analysis of text construction and writers craft and evaluating and critiquing the ideas presented." (Fountas & Pinnell, 2006, p. 18)). When a reader is able to engage with a text in this manner, meaning can be made from the text. Good readers are able to utilize reading strategies with automaticity, unprompted, and independently (Marcell, DeCleene, & Juettner, 2010). They use reading strategies of questioning and analyzing text in order to build knowledge and understanding of the informational text topic or fictional story development. However, when readers are unable to perform these processes, it affects their academic performance and self esteem.

Factors Effecting Reading Comprehension

Self-Esteem

Low academic achievement and other social behaviors are correlated to low levels of self-esteem (Kaniuka, 2009). Because reading is a developmental process, young readers will vary in their abilities to comprehend text which can impact their self-esteem and belief in seeing themselves as good readers compared to their peers or family members. As readers, students vary in the skills, knowledge, cognitive development, culture, and purpose they bring to a text (Pardo, 2004). Therefore, the act of reading is not only a cognitive one, but an emotional one. The reader applies reading strategies to make meaning from text, but also engages an emotion that assists them in making a connection to the text.

Background Knowledge

One factor that can inhibit a reader's ability to make a connection to a text is the background knowledge that he or she brings when reading a text. The more background knowledge a reader has that connects with the text being read, the more likely the reader will be able to make sense of what is being read (Pardo,2004). Background knowledge may involve knowledge about the content as well as the text and it affects the reader's ability to draw upon existing schemas to access known information and understanding and apply them to the text they are reading.

Culture

Alternatively, comprehension can also be impacted by a student's culture and the way in which it is matched to the writer's culture or the culture that is espoused within the text (Pardo, 2004). Cultural differences can impact a reader's ability to understand vocabulary, context, and content thus making it difficult to make meaning from what is read. In addition to cultural

aspects, motivation and engagement of text can influence comprehension of text as well. More motivated readers are likely to apply more strategies and work hard at building meaning (Pardo, 2004). This means that finding text that has a high interest on some level will assist the reader in comprehending the content and internalizing it to make meaning. Therefore it is imperative to examine good teaching practice for comprehension and determine appropriate supports and possible interventions for students who are struggling in their reading achievement.

Developing Comprehension Strategy Instruction

Comprehension should be considered the heart of reading instruction, and the major goal of that instruction should be the provision of learning activities that will enable students to think about and relate to what they read – in short, to read for meaning. In order to do this, teachers must demonstrate, model, and explain to students how to comprehend as they implement strategies of activating prior knowledge, guiding students through the reading of a text, foster active and engaged reading, reinforce concepts that are learned from reading the text, encourage careful and critical thinking of the text, and encourage inquiry about the topic (Tierney & Readence, 2005). The National Reading Panel (NRP) 2000 report supports this method of explicit cognitive - strategy comprehension instruction, determining that instruction in comprehension strategies by teachers who demonstrate, model, and guide student readers, encourages the student reader to become independent and interact with the text without needing assistance. Readers who are not explicitly taught these procedures are unlikely to learn, develop, or use them spontaneously. The NRP released in its report that it had examined over two hundred studies in reading comprehension instructional strategies. The panel identified sixteen strategies or combinations of strategy instruction: however, focused on the nine strategies that were significant in supporting the instruction of reading comprehension to students with

reliability. Among those identified were question asking, question answering, monitoring, summarization, story mapping, graphic organizers, cooperative grouping, prior knowledge, and mental imagery (Shanahan, 2006).

Summarizing

When students are able to summarize, they are able to reduce the amount of text to the most important information. Explicit instruction for summarizing may involve identifying the main idea, developing a new title for the selection, or rewriting the topic sentence. To assist in this, a teacher may use a mnemonic device or tool such as found on Bumgardner's reading site. Bumgardner is a highly regarded educator, author, and speaker on the processes involved in reading comprehension acquisition and instruction. She incorporates a bookmark for use with information and fictional text. The student is able to summarize text by using a simple pattern of words that helps them identify the important details in the text. A fictional summary uses the words: somebody, wanted, but, so, then. An informational passage uses similar language: something, purpose, but, so, then (Contact Strategies Unlimited, Inc., 2012). This type of tool helps the student reader to identify key details and distinguish details that are negligible.

Story Mapping

Story mapping teaches the reader that stories have a structure or an organizational plan. Students read with a purpose to identify the characters, setting, and plot. Utilizing graphic organizational tools or self generated thinking maps allows the reader to organize his or her thinking and create a visual representation. It also helps the reader to show and see important ideas and how they are interrelated, thus engaging their background knowledge. Utilizing visual or graphic organizers help students to see not only new concepts but also how previously known concepts are related and connected to the new ones. Teachers teach students the way to make

text-to-text connections, and text-to-world connections so that readers can more easily comprehend the texts they read (Pardo,2004).

Questioning Text

Questioning the text and responding to questions about the text teaches student readers to guide their own thinking about the text and navigate understanding by trying to remember or figure out the answers (Shanahan, 2006). Strategy instruction within a framework such as QAR, Question Answer Responses, gives teachers and students a language for talking about the largely invisible process that constitute listening and reading comprehension across grades and subject areas (Raphael & Au, 2005) Student readers develop strategies to understand and unlock questioning so that they can better comprehend the text. Within this program, students look for explicit details, information that is right there in the text, as well as information that is directly stated, but may be gathered from multiple points within the text. These examples are referred to as "in the book" question answer responses. In addition, student readers are exposed to higher level questioning when examining question answer responses that are referred to as "in my head" responses. This level of questioning requires the reader to engage in more complex thinking by making inferences, drawing conclusions, and utilizing background knowledge or personal experiences to comprehend the text. QAR can bring coherence to literacy instruction within and across grade levels by providing a framework for a developmental progression for comprehension instruction. As a framework, QAR provides a means for organizing comprehension strategy instruction

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Metacognition

In addition to questioning strategies, research has shown that explicit reading instruction that encourages students to utilize metacognition in understanding and monitoring what they read, assists them in improving reading comprehension. This strategy of self awareness while reading is defined as "the awareness of what one believes and how one knows and the metastrategic control in application of the strategies that process new information. This awareness is developmental and lies on a continuum. Proficient readers use one or more metacognitive strategies to comprehend text" (Gooden, Carreker, Thornhill, & Joshi, 2007). The use of such strategies has developed over time as the reader learns which ones are best suited to aid in comprehension. When students monitor their reading they pay attention to what they understand and what is confusing for them. They understand that good readers employ strategies of rereading, utilizing background knowledge, and looking at text features such as illustrations, pictures, graphs, or photographs, to help that make meaning of the text. This act of self monitoring is explicitly taught when teachers act as models and act out these internal thinking strategies.

Although explicit instruction in any of these cognitive strategies may show improvement in reading comprehension among student readers, researchers more commonly believe that teaching multiple strategies simultaneously is much more effective. In a 2002 report release by Trabasso & Bouchard, it found that there is very strong empirical, scientific evidence that the instruction of more than one strategy in a natural context leads to the acquisition and use of reading comprehension strategies and transfer to standardized comprehension tests. Multiple strategy instruction facilitates comprehension as evidenced by performance on tasks that involve memory, summarizing, and identification of main ideas (Pardo, 2004).

The Achievement Gap of African American Students

In 2001, President George W. Bush signed into law No Child Left Behind, (NCLB). Guided by the finding in the NRP 2000 report, the law was designed to shrink and eventually eliminate the ever growing achievement gaps between white students and minority students. Its goal was accountability. Schools were rated on their performance based on the standardized testing in the areas of math and reading achievement. This annual yearly progress, AYP, report determined the extent to which all students had made sufficient academic progress, with the expectation that by 2013- 2014 all schools would be at 100 percent proficiency among all student groups. Over time researchers have demonstrated that this "one size fits all" accountability model does not work in all conditions and limits states and weakens the educational changes by teachers that are needed in classrooms (Rohas-LeBouef, 2012). The 2011 National Report card indicated that not much is changing for African American students. The 2011 reading scores represent a 25 point difference among African American students and their white peers in 4th grade (USDE, 2011). There is much finger pointing and several conclusions that have been drawn for the lower performance of African American students on standardized reading achievement tests. Some opinions that have been developed through the years are that scores are lower because more African American families live in poverty, there are cultural biases to tests, students are lazy and unmotivated, and there is a lack of parental involvement. However, too often students of diverse backgrounds are denied access to the language needed to discuss strategies and questions because the lesson they receive focus largely on lower level skills. Lessons in reading programs often used in these classrooms tend to be based on texts that do not challenge or interest students (Raphael & Au, 2005). Less motivated readers are not as likely to work as hard, and the meaning they create will not be as powerful as if they were highly

motivated (Pardo, 2004). Some feel that the message and implications from NCLB have also created this curriculum gap for African American students. Students in younger grades, K – 3, are explicitly taught foundational skills in phonics in order to teach decoding and automaticity in word recognition. Standardized tests in the primary grades such as DIBELS Next increase the pressure for teachers to ensure that all students are performing at a proficient foundational level for phonics and fluency. However, they are not all that is needed to become a successful reader. It is also essential to teach children appropriate comprehension strategies and skills that enable them to understand texts that are more complex than those made of everyday words they already know and conversations they routinely hear (Teale, Paciga, & Hoffman, 2008). When instruction becomes based on isolated word knowledge, the quality of the text is diminished. African American students, especially in urban areas of poverty, may not have access to quality books in their homes or within their community. Good books are a key to creating good readers, and the school becomes the resource for interaction with books that are developmentally appropriate and on level in developing reading comprehension. The curriculum instruction needs to encompass all aspects of the foundation in order to promote long-term growth in literacy (Teale, et al.).

Another consideration for lower performance in African American students is the idea that students are missing instruction due to increased time out of the classroom for disciplinary actions. National and state data show consistent patterns of African American disproportionality in school discipline over the past 30 years, specifically in suspension expulsion and office discipline referrals. According to a nationally representative study utilizing parent reports, in 2003 African American students were significantly more likely to be suspended than White or Asian students. Specifically, almost one in five African American students (19.6%) were suspended, compared with less than one in ten White students (8.8%). A nationally

representative survey of 74,000 10th graders found that about 50% of African American students reported that they had ever been suspended or expelled compared with about 20% of White students (Gregory, Skiba, & Noguera 2010). Low academic achievement among African American students contributes to frustration that can lead to discipline referrals. Faced with repeated academic struggles, underperforming students may become frustrated and disaffected and have lower self-confidence, all of which may contribute to a higher rate of school disruption. Low literacy achievement in the elementary grades is linked to later aggression in third and fifth grades (Gregory, et al., 2010)

With time spent outside of the classroom, the gap widens between good and poor readers over time without some type of intervention. In a study completed by Kempe, Gustavsson, and Samuelsson, the researchers wanted to determine if in fact there is a correlation to good and poor readers over time and if in fact the gap increases over time (the Matthew Effect). Their study was designed to examine effects on the development of reading and spelling for the first three years of formal literacy instruction. They determined that the Matthew Effects were observable for reading comprehension and vocabulary for children with reading difficulties and normal readers (Kempe, et al., 2011).

So if historical perspectives have not been significantly changed in the reading achievement of our African American students, how can educators work to bridge the ever widening gap?

Creating a Plan of Intervention

Teacher-student relationship quality has emerged as an important aspect of the elementary classroom context that has implications for children's concurrent and future academic and social adjustment in school. Researchers who have conducted longitudinal designs

have found that those students who experience teacher-student interaction characterized by high levels of warmth and support gain more in achievement (Hughes et al, 2008). However, research indicates that positive relationships seem to be less common within the home school connection among low-income and racial minority children that higher income white students (Hughes& Oi-man, 2007). Better relationships need to be built with students, teachers, and home to help African American students in the achievement gap gain self-esteem, become engaged and motivated, and increase reading achievement.

One way that this can be done is through the implementation of an after school program where teachers can build relationships with these students in a safe environment of learning. Teachers participating in the program will be volunteering their time after school, so they have a vested interest in the success of the students and building relationships. The after school "homework" club will take place Monday through Thursday each week. The sessions will begin at the close of school, 4:00 and last for forty five minutes each day. Parents will be responsible for enrolling students by returning a permission slip that indicates how the student will be dismissed. The parent will be responsible for arranging transportation or for enrolling the student in an after care program that is also housed within the building. All students within the school are offered the same opportunity to attend the program, and it is open to all grade levels. Due to space limitations within the building, and the number of staff members available to support the program, grades K and 1 will meet in the same room, grades 2 and 3 will meet in the same room, and grades 4 and 5 will meet in the same room. Students will be supported by at least one accredited teacher from the building along with at least one community volunteer. Teachers and volunteers will work with participating students to complete homework in reading and in math. They will also interact and build relationships with the students by engaging them

in self selected reading, read alouds, participation in educational games, and extensions for practice of weaker academic skills. Once a week, the grade groups will have the opportunity to visit the computer lab to practice and extend skills in both math and reading. Computer technology is believed to have the potential to make significant improvements in children's cognitive abilities, namely, critical thinking, analysis, and scientific inquiry by matching technology applications to children's own learning styles (Schmid, Miodrag, & DiFrancesco, 2008).

In a study completed by Hughes and Kwok at Texas A & M University, results indicated that there is a positive relationship in academic motivation and performance in early elementary students gains in achievement when they and their parents experience supportive relationships with teachers. They also found a concurrent effect of engagement on reading achievement, but it was not related to math. However, the study also indicated that African American children and their parents are less likely to experience home-school relationships and student-teacher relationships that support student achievement. The authors of the study suggest that early social experiences in school may be a factor in contributing to the widening racial disparities in academic achievement (Hughes & OiMan 2007). With understanding the implication, the intervention seeks to overcome the racial disparity and work to build relationships in understanding cultural differences, reading difficulties, and behavioral challenges, in order to build trust among our African American students and their families as we work together to bridge the achievement gap in reading.

Summary

Comprehension and understanding of text is a life skill that is necessary not only for academic success, but for success in the lives of our students. Some students present themselves

as fluent readers because they have the ability to decode text at a grade appropriate rate. However, what impacts their learning is their ability to synthesize what they read and make meaning and make connections to the text. Teachers must be diagnostic and prescriptive in their ability to notice the difference and plan to create an intervention that will assist students in being able to utilize reading strategies that will help them unlock the meaning of various genre texts.

CHAPTER III

METHODS

The purpose of this study was to examine the effects of an after school homework program on the development or growth of reading comprehension for African American students who participated as measured by achievement levels on the Anne Arundel County Public Schools Reading and Language Arts Benchmark assessments as well as the DIBELS Next assessment in grades kindergarten and first.

Design

The study utilized a quasi-experimental research design that compared the reading achievement scores of two groups of African American students on the AACPS Language Arts Benchmark assessments in grades 2 through 5 and the DIBELS Next testing assessment in grades kindergarten and 1. One group of African American students participated in an after school homework program that employed certified teachers and volunteers to assist with nightly homework for forty five minutes daily, Monday through Thursday. Students in this group were separated by grade levels so that appropriate instruction and assistance could be given. The students went to a kindergarten and first grade combined classroom, a second grade classroom, a third grade classroom, and a fourth and fifth grade combined classroom. In addition to homework assistance, this student group also participated in game-like centers within the classroom setting, and once weekly, a computer lab setting, practicing and extending reading strategies and skills. The students participated in the program from October 2012 through March 2013. The other group of African American students received only the daily reading comprehension instruction within their classroom setting and did not receive assistance after school.

Subjects

The subjects of this study all attended a suburban Anne Arundel County school located between two major cities, Baltimore, Maryland, and Washington D. C. The school's student mobility during the 2012 school year was 26.1% with 51 students entering, and 33 withdrawing. The student population is considered somewhat transient, with many students moving from Baltimore City as well as transferring in and out of schools within Anne Arundel County. According to the 2010 U.S. Census Bureau, the population of the school community was 65.3% White and 23% African American and the estimated median income of a household was $93,173.00 compared to the state average of $72,419.00. However, within this school's immediate households, it would be expected that the average income would be lower due to the fact that during the 2012 school year, 41.3% of the students, 136 of the 329 enrolled, received free and reduced meals.

The first group of African American students who participated in the after school homework program consisted of fifteen males and six females. Of the group, eight students (38%) received special education services or had a 504 plan, seven males and one female. In addition, two of these students, one male and one female, were instructed in all curriculum within the constraints of the emotionally disturbed program taught within the setting of the comprehensive school. Of the student group, 71% received free and reduced meals, twelve are males and three are females.

The group of African American students who did not participate in the after school homework program were selected based on the grade level enrollment of African American students. Of this student grouping, twenty eight are male and twenty seven are female. Within this group, eight males received special education services or had a 504 plan, while three of the

females received or had these services or plans. Students who received free and reduced meals were 60% of the participants consisting of nineteen males and thirteen females.

Instrumentation

In kindergarten and first grade, the DIBELS Next assessment was used to evaluate achievement in early literacy. The DIBELS Next measure was developed over fourteen years ago at the University of Oregon with federal and public grant dollars. The assessment is used in kindergarten to measure first sound fluency, FSF, and letter naming fluency, LNF, at the beginning of the year in September. The measure is given again in January to assess these same early literacy skills in addition to phoneme segmentation fluency, PSF, and the ability to read nonsense words and identify correct letter sounds, CLS, as well as read the word reflexively, whole word fluency, WWF. The assessment is also used in first grade to measure many of the same early literacy skills. The measurement in September identifies benchmark scores for the same skills identified mid year in kindergarten. In January, the assessment measures nonsense word fluency but also begins to measure oral reading fluency, ORF. According to the Early Childhood Research Institute on Measuring Growth and Development, ECRI-MGD, reported on the reliability and validity of the DIBELS after a four year longitudinal research study and found that for kindergarten and first grade students, all DIBELS measures had adequate reliability. "When 3 or 4 (ISF) probes are aggregated together, all DIBELS measures have estimated reliability in the .90s. The median concurrent validity of single DIBELS probes with the Woodcock-Johnson Broad Reading Cluster were .36 for ISF, .56 for PSF, .51 for NWF, and .75 for LNF. The DIBELS measures were also found to predict both oral reading fluency (ISF median r = .38, PSF median r = .62, NWF median r = .69) and Woodcock Johnson Total Reading Cluster score (ISF median r = .33, PSF median r = .63, NWF median r = .66) more than a year later." (Good, Kaminski, Shinn, Bratten, Shinn, Laimon, Smith, Flindt, 2004)

In grades 2 through 5, the Anne Arundel County Public Schools Reading and Language Arts Benchmarks were used to evaluate reading comprehension. This year the benchmark exams were administered in October and again in January of the school year. The reading benchmarks are broken into three timed sections. Each section contains at least one reading passage with selected response questions and written text dependent response questions. The questions were purchased from the 2012 test bank of Macmillan/McGraw-Hill companies. The benchmark assessments measure student performance in reading within the specific standards of the new Maryland Common Core Curriculum Framework. In late January, the Anne Arundel County reading department released a statement indicating that the first benchmark was developed to be slightly below grade level, the second benchmark would be on grade level, and the final benchmark is anticipated to be slightly above grade level. In the past, the benchmarks were considered to be reliable in predicting student achievement on the Maryland State Assessment, MSA. However, with the new benchmark format based on Common Core State Standards, CCSS, and with the purchase of new questions from the test bank, there is no research available to substantiate this claim. In addition, benchmark cut scores for proficient and advanced students were changed from benchmark 1 to benchmark 2 based on the student performance. These scores are depicted in the following tables:

Table 1
AACPS Cut Scores for Benchmark 1
October 2012

	BM1	
Grade	Proficient	Advanced
2	50	83
3	50	83
4	45	79
5	50	75

Table 2
AACPS Cut Scores for Benchmark 2
January 2013

	BM 2	
Grade	Proficient	Advanced
2	50	85
3	55	88
4	50	80
5	50	70

Any score below a proficient level places a student in the category of a basic reader and the student is considered to be a below grade level reader.

PROCEDURE

The initial DIBELS Next testing was conducted in a window of September 18 through September 24, 2012. The AACPS reading benchmark assessments were given during the week of October 22, 2012. The scores from both of the initial assessments were used as the pretest for the study group. The implementation of the after school homework program started on October 1, 2012. Students in the study group participated for 45 minutes daily, Monday through Thursday. In addition, student reading comprehension and decoding for younger students, was reinforced with a certified educator and at least one volunteer. Students in the control group received only their daily reading comprehension, phonemic awareness, and phonics instruction within their classroom, meeting the county and state guidelines for instruction.

For the students in the "homework club", the teachers directed students to complete their reading, spelling, and or math homework during the daily 45 minute bock of after school support. Teachers and volunteers made themselves available to interact with the students to review homework demands, answer questions, and extend student thinking. All student homework was checked for completion and for accuracy by the teacher and then initialed in order that parents and or guardians could check the students homework and know that it was completed correctly, or know if further work was still needed to complete homework due to a lack of time in the 45 minutes after school. Upon completion of homework in the after school program, teachers made classroom libraries available so that students could complete the expected 15 – 20 minutes of nightly reading to complete their monthly reading log. Teachers

were also provided with literacy centers from the Florida Center for Reading Research which could be utilized among the students to practice and or enhance reading skills and or strategies. In addition, classrooms with SmartBoard technology were utilized to engage students in reading games that were grade level appropriate. These games were determined based on the teacher's discretion, as the certified teacher in the classroom also taught the grade level for the students participating in the program. Additionally, each grade level was assigned a day to utilize the computer lab. During this time, students could choose to complete homework prior to utilizing technology. Again, the teacher used their discretion to determine appropriate web sites for both reading and math. Some of the sites that were utilized were Starfall, Dr. Seuss, Tumblebooks, Treasures on line books and phonics games, as well as other sites through the AACPS technology web site.

The posttest assessments for DIBELS Next and for the AACPS Reading and Language Arts Benchmark were both given during the week of January 14, 2013. Afterward, an analysis was done which compared the initial assessments in September/October (pre-test) for both groups to the achievement and growth with their posttest assessments given in January. The results of this analysis will be discussed in Chapter Four of this study.

CHAPTER IV

RESULTS

One of the major purposes of this quasi-experimental study was to examine the impact of an after school homework club upon the word decoding and comprehension skills of African American students in grades kindergarten through one based upon their performance on the Dynamic Indicators of Basic Early Learning Skills, DIBELS Next, assessment. A second major purpose was to also assess the impact of this program for students in grades two thru five using the AACPS Reading and Language Arts Benchmark Assessments to measure improvements in students' reading achievement. The independent variable in this study was the participation (or non-participation) of African American students in an after school homework club and the dependent variable was students' performance on either of the above-mentioned assessments.

Table 3 reports on the DIBELS results for African American students in grades kindergarten and one who participated, or did not participate in the after-school homework program.

Table 3

School wide Performance of African American Students in Grades Kindergarten and One Who Participated or Did Not Participate in the After School Homework Program

Number of Participants		
DIBELS PERFORMANCE	Prior to the Beginning of the After-School Homework Program	At the Conclusion of the After-School Homework Program
	Number of Students	Number
Core Support	5	5
Strategic Support	1	0
Intensive Support	0	1
Number of Non-Participants		
	Prior to the Beginning of the After-School Homework Program	At the Conclusion of the After-School Homework Program
Core Support	14	15
Strategic Support	2	1
Intensive Support	1	1

These results suggest that very few African American students in grades kindergarten and one (i.e. 25%) participated in the after-school program. Among those who did participate, a great majority of them (i.e. 83%) remained at the same performance level (i.e. core support) once the after-school homework program had ended. Among the African American students who did not participate in the after-school homework program, (i.e. 75%), almost all of them remained at the same level of performance at the conclusion of the after-school homework program.

As previously indicated, the impact of the after-school program on reading achievement among African American students in grades 2 thru 5 was assessed using the AACPS Reading and Language Arts Benchmark assessments. For students in grade 2, the results are reported in Table IV below.

Table 4

Average Countywide Benchmark Scores for African American Students in Grade 2 Who Participated versus Those Who Did Not Participate in the After-School Homework

	Students Who Participated in the After-School Homework Program			Students Who Did Not Participate in the After-School Homework Program		
	Benchmark 1	Benchmark 2	Mean Difference	Benchmark 1	Benchmark 2	Mean Difference
Mean	58.7	59.5	0.8	71.7	68.1	-3.6
Standard deviation	25.2	21.1	8.6	16.4	16.5	11.2
Number of Students	4	4	4	10	10	10

These results suggest that there is a very slight increase in the Benchmark 1 to Benchmark 2 performance of students who participated in the after school homework program, while there was a decline that occurred among similar students in the control group. It is important to note that the results reported in Table 4 for Grade 2 are based upon 4 students who

participated in the after school homework program compared to 10 students who did not participate. This pattern was also evident in the analysis of AACPS Benchmark data in subsequent grades. In order to determine whether these differences were statistically significant from one another, a *t* test for independent groups (assuming unequal variances) procedure was used. The results (t=.707, df =12 , p =.493) suggests that the pretest versus posttest differences obtained for the group of students participating in the after-school program versus those that did not participate were not statistically different from one another.

Table 5 reports the means and standard deviations of African American students in Grade 3 who participated, or did not participate in the after-school homework program.

Table 5

Average Countywide Benchmark Scores for African American Students in Grade 3 Who Participated versus Those Who Did Not Participate in the After-School Homework

	Students Who Participated in the After-School Homework Program			Students Who Did Not Participate in the After-School Homework Program		
	Benchmark 1	Benchmark 2	Mean Difference	Benchmark 1	Benchmark 2	Mean Difference
Mean	47.5	68.5	21	63.1	69.6	6.4
Standard deviation	19.1	17.8	8.7	18.2	15.5	11.8
Number of Students	4	4	4	14	14	14

An analysis of these results suggests that there was an increase of 21 percentage points among students who participated in the afterschool homework program, compared to 6.5 percentage point increase among students who did not participate. In order to determine whether these differences were statistically significant from one another, a *t* test for independent groups (assuming unequal variances) procedure was used. The results (t=1.171, df =16 , p =.259)

suggests that the pretest versus posttest differences obtained for the group of students participating in the after-school program versus those that did not participate are not statistically different from one another.

Table 6 reports the means and standard deviations of African American students in Grade 5 who participated, or did not participate in the after-school homework program.

Table 6
Average Countywide Benchmark Scores for African American Students in Grade 5 Who Participated versus Those Who Did Not Participate in the After-School Homework

	Students Who Participated			Students Who Did Not Participate		
	Benchmark 1	Benchmark 2	Mean Difference	Benchmark 1	Benchmark 2	Mean Difference
Mean	52.5	64.7	12.7	63.1	69.6	6.4
Standard deviation	17.6	12.1	15.5	18.2	15.5	11.8
Number of Students	7	7	7	12	12	12

As was the case with Table 5, the results suggest that students who participated in the after school program reflected a 12.2 percentage point difference in their Benchmark 1 versus Benchmark 2 results, while students who did not participate in the after school program reflected a 6.5 percentage point difference in their Benchmark 1 versus Benchmark 2 results. In order to determine whether these differences were statistically significant, a t test for independent groups (assuming unequal variances) was used. The results (t = .915, df = 17, p = .373) suggests that the pretest versus posttest differences obtained for the group of students participating in the after-school program versus those that did not participate were not statistically different from one another.

In summary, there is some evidence in each of the above grade-level analyses that there were differences in students' Benchmark 1 versus 2 results in grades 2, 3, and 5 which favored students who did participate in the after-school program. In each case, however, these differences were not statistically significant.

Across all grades, the null hypothesis that there would be no statistically significant difference in the performance of the African American students who participated in the after school homework program on the first versus the second administration of the Anne Arundel County Public Schools Reading and Language Arts Benchmark exams when their performance is compared to the performance of African American students who did not participate in the program on the AACPS Reading and Language Arts Benchmark exam, should be retained.

CHAPTER V

DISCUSSION

The primary purpose of this study was to determine if the performance of African American students who participated in an after school homework program in addition to receiving daily classroom instruction in reading utilizing the Treasures basal reading program would reflect statistically significant growth in reading decoding skills in grades kindergarten and one based upon their pretest versus posttest results on the DIBELS Next assessment, and reading comprehension in grades two through five based upon the AACPS reading benchmarks. The results for students who participated in the after school homework program were compared to peers who only received daily reading instruction utilizing the Treasures reading program.

The null hypothesis of this study was that there would be no statistically significant difference in the achievement of the students who participated in the after school homework program versus those of the students who did not participate in the program was retained.

Internal Validity

There are several factors that were considered when evaluating the threats to the internal validity of this study. These threats could provide alternative explanations for the results that are presented in this study. A first consideration involves the testing and instrumentation used in the study. The county benchmarks were administered in mid October 2012 and again in Mid January 2013 to students in grades 2 thru 5. With such a short time in the school year calendar between testing, in addition to significant amounts of time lost when students were not in school, the amount of growth in reading on the county assessments may have been significantly impacted. Were this researcher to have chosen the best possible time to conduct this study, one solution to this problem may have been to wait for a longer span of time in the school-year

calendar and to use the county benchmark given in both January and May 2013 to assess the full impact of the after school homework program upon reading achievement.

Another potential threat to the internal validity of this study related to the "grade-level content validity" of the instruments used related to changes in selected AACPS benchmark assessments during the 2012-2013 school year after having been administered over a period of ten years. The first benchmark, which is given in October and served in this study as the pretest, was found to be slightly below grade level expectations by the county reading department, while the second benchmark, given in January, was considered on grade level by the county reading department. Thus, the benchmark assessments used in this study did not assess student reading achievement at the same grade levels and consequently were not identical in assessing the student learning objectives indicated in the Maryland Common Core Curriculum Frameworks.

Another potential threat to the internal validity of this study relates to what were changes in the county benchmark cut scores from benchmark 1 to benchmark 2 for grades 3 and 4. The cut score which indicated a "proficient" reading level for third graders moved from 50 on Benchmark 1 to a cut score of 55 on Benchmark 2. The cut scores used to identify students who were reading at an "advanced" reading level changed across all grades. For the purpose of this study, one possible solution to this problem may have been to use the second benchmark as the pretest, as it considered to be on grade level, and re-administer this benchmark as a posttest at the end of the school year to determine student growth on grade level reading material using an assessment that reflected the state-wide learning standards in reading comprehension. A similar recommendation might also be appropriate for the DIBELS Next assessment given that this assessment does not measure the same skills throughout the school year.

Another example of an internal threat to validity in this study is that of differential selection of participants. The students within the study who had an IEP or a 504 plan had specific deficits in their reading abilities. These specific needs/deficits were not conveyed to the teachers or volunteers who participated in the homework program. Understanding the learning difficulties of these students would then have been considered in the analysis of the pre and post testing results and the different instructional needs of students who participated in both the after school homework group study group and those in the control group.

The issue of student mortality was also a potential internal validity threat to this study. Several students who were African American either dropped out of the homework program or withdrew from the school during the conduct of this study. These students may have represented students who were not as motivated, thus changing the dynamic of the study group to one that could possibly be more motivated to succeed than those students in the control group. One possible solution to this problem would have been to work with families to create a line of communication that supported student attendance in the homework program on a consistent basis, and to develop some type of incentive that increases the student's extrinsic motivation to become a better reader.

Another factor to consider in this study is student maturation and growth. Reading is a developmental process. Selection maturation interaction could have occurred due to student maturation, especially in the early literacy grades, but also in the intermediate grades from three to five. When students mature in their development of the reading process at different rates, it makes it difficult to consider if the growth is due to the effectiveness of the intervention, or the after school homework program.

One final potential threat to internal validity would be the size of the treatment group represented in the study. With such low numbers of African American students participating, it made it difficult for the researcher to detect statistical significance within the data. Because this after school program was voluntary and transportation was not provided, it may have been a hardship for many of the African American families within this school to have students attend. A possible solution to the problem may be to have the program before school to encourage attendance or to investigate the possibility of the county providing an after school activity bus.

External Validity

Some consideration must also be given to the generalization of the results in this study to other populations. One such concern would be multiple-treatment interference. Within the experimental group it is important to note that some students did participate in other research-based reading interventions during their instructional day. These intensive interventions may have impacted their performance on the assessments. Were this study replicated, it would certainly be important to identify such interventions and to make sure that similar numbers of students participate in both groups.

Suggestions for Further Study

Several suggestions might be made for future research that utilized an afterschool homework program to determine progress among African American students in the area of reading achievement. One consideration would be to evaluate the impact of the above-mentioned potential threats to the internal and external validity of such studies. In order to eliminate some of the threats, the researcher may want to limit the reading levels within the experimental group and the control group before starting the after school homework program. Administering the Fountas & Pinnell reading assessment prior to the implementation of the

treatment and then again at the end of the treatment may be a better instrument for evaluating the progress in reading decoding and reading comprehension for each individual student as it evaluates fluency levels, accuracy, and comprehension. This reading assessment would also give the researcher the ability to understand the student's reading levels based on independent, instructional, and frustration levels for reading.

Another factor that the researcher may want to consider is to develop strategic lessons that can be utilized to focus on reading weaknesses within the experimental group. By focusing on those areas of reading that are impacting reading success, the student is given explicit instruction in an area of need, instead of general assistance in isolated skills/strategies for reading. This more focused approach may also suggest that the allotted 45 minutes may need to be extended to allow for homework completion as well as explicit instruction.

For any future studies, researchers may also be interested in knowing how the treatment affects other student groups that fall within the achievement gap and have a larger FARMS population such as Hispanic students. Identifying similar student profiles may help researchers understand similar learning styles that would allow for identifying similar reading difficulties and or strengths and utilization of this information to increase reading achievement amongst more students.

Finally, researchers may also want to explore how motivation and relationships within a homework program can affect African American students. Tapping into student motivation and interest may also help the teachers and volunteers within the treatment program better understand their students and help to develop relationships and connections that link to achievement in reading.

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