

The Effects of an After School Literacy Program
on
Academic Achievement

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Submitted in Partial Fulfillment of the Requirements for the
Degree of Master of Education

May 2013

Graduate Programs in Education

Goucher College

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Abstract

The purpose of this study was to determine whether an after-school literacy program would increase reading comprehension scores of low-performing, high-poverty Title I students compared to low-performing non-Title I students who did not participate in an after-school literacy program. The results of this study indicate that there was a significant difference in the reading comprehension performance of Title I students who participated the after-school literacy program and the non-Title I students who did not participate. Further research is needed to determine if this would be beneficial for the Title I students who would participate in the after-school literacy the program year-round and not just for the six week session.

CHAPTER I

INTRODUCTION

Overview

Children who grow up in a poor neighborhood, often with an over-worked single parent with little education, are at definite disadvantages educationally, economically and socially. Children of poverty begin their school careers already behind in language development, general knowledge and life experiences as compared to more affluent peers. Without good teaching these children may never catch up. Reading comprehension involves not only the ability to decode text and remember what it says, but also the reader's vocabulary, prior experiences and overall access to books (Arbreton, Goldsmith & Sheldon, 2005). Lacking in these areas, it is not surprising that many children from poor socioeconomic backgrounds struggle with reading comprehension. Fortunately, there are after-school programs to help these children overcome this disparity. Investing in after-school programs helps children of rural communities break out of the cycle of poverty and creates opportunities for at-risk youth. In areas where prospects and resources are limited, after-school programs are often the only source of supplemental enrichment in literacy, nutrition education, technology and preparation for college entrance exams.

After-school programs offer an effective and affordable way of overcoming obstacles confronting rural communities and helping children realize their full potential. The No Child Left Behind Act requires schools not only to show student proficiency in reading, but also to provide supplementary services, such as after-school programs, for

those who fail to meet expectations. Although research on such activities is limited, the encouraging news is that after-school programs can raise reading achievement among struggling students, according to a recent research synthesis of 56 rigorous studies conducted over the past 20 years (Ryan, Foster & Cohen, 2002). Because of such findings, a new generation of after-school programs is helping children master the reading, writing, and communication skills they need to succeed. Literacy skills are the first necessary skills for young people to decode sounds and words and, later, to read and learn across the curriculum (Halpern, 2002).

In the United States, the gaps in achievement between poor and advantaged students are substantial (Lacour & Tissington, 2011). The U.S Department of Education (2001: 8) released results that “clearly demonstrated that student and school poverty adversely affected student achievement.” Retention and special education placement are largely determined by reading performance. The inability to read is correlated with a number of social problems that plague society’s youth, such as delinquency and teenage pregnancy (Slavin & Madden, 1993.) Unfortunately, poverty, more than any other social problem, impedes children’s literacy. The current emphasis on performance standards and testing has led schools to look to the after-school hours as time that can be spent developing children's academic skills. Previously, principals and teachers tended to focus on after-school programs as a means to provide supervision for children whose parents were employed during the before-and-after-school hours. Research has substantiated educators' concerns that children who are unsupervised during the after-school hours can suffer an array of negative developmental outcomes, especially when those children come from high-risk circumstances.

Because so many students who grow up living in poverty are significantly behind their more affluent peers, it is important to make sure these children are supported in ways that will enable them to become better readers, writers and critical thinkers. According to Slavin et al., (1989) "the negative spiral that begins with poor achievement in the early grades can be reversed" (p.701). Title I schools believe in this reversal and allocate a large portion of their funds on offering extended day services to students in poverty. One such program is an after-school literacy program where students are able to sustain their learning in a formal, small group setting that focuses primarily on reading and literacy skills with which students are having difficulty during the regular school day. Having students stay after school a few times each week may create a more level playing field for Title I students as well as their more affluent peers. Reading is fundamental to schooling and other skill areas. Due to these disheartening research findings, this researcher became interested in examining the impact of offering an after-school literacy program in her role as a Title I Teacher Specialist. Because so many Title I students are categorized as low-performing, high-poverty students, the researcher wished to determine the effects of the after-school literacy program on these students.

Statement of Problem

The purpose of this study is to determine whether an after-school literacy program improves reading comprehension for low-performing, high-poverty Title I students.

Hypothesis

The null hypothesis is that there will be no significant difference in reading comprehension scores of low-performing, high-poverty Title I students who are participating in an after-school literacy program; and the reading comprehension scores of low-performing, high-poverty students who are not participating in an after-school literacy program.

Operational Definitions

The dependent variable was the reading comprehension score on the Anne Arundel County Language Arts Benchmark Assessment.

Reading comprehension performance was defined in this study as a student's overall score on the Anne Arundel County Language Arts Benchmark Assessment #1. The scores were calculated into percentages. Percentages were defined by the county reading office as follows: scores of 59% and below are "basic," scores 60% to 79% are "proficient," and scores 80% and above are "advanced."

The independent variable was the after-school literacy program that was offered to the treatment group. The after-school literacy program was a program that consisted of reading and literacy-based strategies taught to students in an after-school small group setting held two days a week for 90 minutes each session. The lowest-performing students who were selected to participate in the program were the students identified as the bottom 20% of their grade level. The measures used to determine this 20% were all of the County Benchmark Assessments as well as MSA data, teacher input, reading

inventories, and any intervention group data. “For most Americans, the word “poverty” suggests destitution: an inability to provide a family with nutritious food, clothing, and reasonable shelter,” (Rector & Sheffield, 2011).

In Anne Arundel County, Maryland, students who were identified as high-poverty were students receiving free lunch. High-poverty schools in Anne Arundel County are schools whose percentage of students who qualify for a free or reduced priced meal is over 55% of their total student enrollment.

Title I is a program that involves federally allocated monies to provide funding for high-poverty schools to help students who are behind academically or at risk of falling behind. The after-school literacy program in Anne Arundel County is an after-school program that focuses on re-teaching literacy and reading strategies to Title I students who are identified as needing this remediation because their performance on mandated school wide assessments are very low compared to the county average.

CHAPTER II

REVIEW OF THE LITERATURE

Overview

After-school literacy programs are a viable way to provide positive situations for disadvantaged children. In these programs, children who are at or below the poverty level receive not only food, structure, and nurturing; but also basic literary assistance which will hopefully enable them to catch up with their peers from higher socio-economic areas. This review of the literature is divided into four main sections. The first section discusses the components of successful after-school literacy programs. The second part explains the academic component of after-school programs. In the third section, is a description of the structural component of after-school programs; the fourth and final section discusses family involvement in these important programs.

After-School Literacy Program

Successful after-school literacy programs provide supplemental literacy education for its lowest performing students, many of whom receive free or reduced-price lunches. The children receive daily literacy activities that include independent guided-reading practice, fluency-building support, and read a-louds. In addition to literacy education, the children also learn basic principles of healthy living by eating a healthy snack and partaking in guided physical activity. For many of the students, the afterschool program is what allows them to read at grade level and provides them with nutrition awareness.

There are many different types of after-school programs that are effective and the most important criteria in being an effective program include the following seven elements:-Examining the low child-to-adult ratio – in an educational setting means that each child will get more personal attention in tutoring or homework; - educational activities – many after-school programs focus on tutoring; - helping students with homework; - or other school-related activities. Even those activities that have another focus can still incorporate learning, such as outdoors education or field trips to local sites like museums or parks. These types of activities can help children do better in school. Reliability is an important consideration to most parents when looking for an after-school program, especially if the parents' work during the time the students will be at the programs. Parents want to know that their children will be in a safe environment when the parents expect them to be there. Transportation; - programs that are conducted at the children's schools eliminate the concern about getting the children to the programs; the parents just have to get them home again afterwards. For programs that are farther away from the school, the parents often must arrange for transportation, though some programs may provide transportation to the after school program as part of their services. Most after school programs have some cost to parents, though school and religious programs may be less expensive or provide some type of aid to parents. Parents may want to find out how the money is spent to be sure they are getting good value out of the program. Food, activities, utilities, and salary are some of the main expenses of after school programs. Social interaction; - Social interaction is an important benefit of after school programs. Programs often give students the chance to

spend more time with friends. Physical activity; – with the growing concern about American children not getting enough physical activity, especially activity outdoors, parents may want to make sure their child's after school program will provide time for safe outdoor activities. This can include structured activities like sports, or unstructured time for children to play outdoors; - Finally, most after-school programs provide an afternoon snack for students; - parents may wish to make sure is nutritionally healthy (Halpern, 2002).

Program design needs to be based on individual students' academic needs as revealed by the school's assessments and teacher reports. Individual student data can also be used to evaluate whether the program is working. Classroom teachers should regularly share the specific needs of individual students with afterschool staff. The afterschool staff needs specific content knowledge and instructional strategies to facilitate learning. The class sizes need to be small. Generally, a 1-15 ratio or lower for younger students seems to be ideal. There should be consistent, formal, and specific communication between school day and after-school staffs, perhaps through daily planners or academic communication logs. Programs also need to be evaluated. This means collecting pre- and post-assessment data and conducting longitudinal studies for their effect on raising student achievement (Halpern, 2002).

The goal of an after-school literacy program is to improve academic reading achievement for students who participate in the program. In order to become recreational and life-long readers, students need the opportunity to practice and develop their literacy skills in relaxed and enjoyable environments. Activities such as group discussions, storytelling, leisure reading, literacy games and other such reading-based

interactions can foster youths' interest and motivation to read (Halpern, 2002).

Research shows that after-school programs successfully provide such activities

Academic Benefits of After-School Literacy Program

Studies show that after-school hours can be dangerous ones for children. According to the Department of Justice, 29 percent of all juvenile offenses occur on school days between 2 p.m. and 8 p.m. and that the number of violent crimes committed doubles in the hour immediately after school is dismissed. After-school programs are often seen as an effective way to keep children safe and supervised. Experts also believe that the after-school hours are an opportunity to further engage students in academic, social, and physical activities. As former U.S. Secretary of Education Richard W. Riley (2000) noted, "Children's minds don't close down at 3 p.m." And now, neither do many schools. Some after-school programs can help improve study habits of children because the programs are typically structured with program managers who set aside time for students to complete homework assignments from the day's classes. Many school children might otherwise go home and fail to complete homework in a structured environment, but the afterschool curriculum can end up becoming an extension of the learning that takes place in school all day (Foley & Eddins, 2001).

During the intermediate grades, grades three through five, children need to develop and use all word identification concepts and skills, as well as comprehension strategies such as recognizing confusion, adjusting one's strategies, and identifying and

summarizing main ideas and important details (Foley et al., 2001). As children prepare for and progress through middle school and high school, they are expected to develop and use advanced reasoning for reading so that they can understand and interpret texts well enough to take and pass a college-preparation sequence of courses. When children don't master these increasingly complex reading skills on schedule, the negative effects spill over to other content areas. Struggling readers tend to fall farther and farther behind other students, not only in language arts, but in other subjects as well. Research shows, however, that this trend can be turned around. According to Slavin et al., (1989) "the negative spiral that begins with poor achievement in the early grades can be reversed" (p.701) To help students attain proficiency in reading, many educators are considering after-school programs. These educators are looking for effective programs to mitigate summer learning loss, remediate skill deficiencies, accelerate learning, and prepare students for the intellectual challenges of later schooling and work. In addition to addressing these academic focuses, after-school programs enable educators to address the safety, behavioral, cultural, vocational, emotional, and social needs of students

The timeframes for delivering these programs include after-school, Saturday school, and summer school. The variation among the purposes and formats of these strategies reflects how interventions address the different academic and social learning needs of students. The National Institute on Out-of-School Time "believes that high quality after-school programs focus on the development of the whole child, integrating academic supports such as literacy skills into programming that also promotes children's social, emotional, and physical development" (Miller, Snow & Lauer, 2004).

Others have emphasized the informality of after-school programs as being well suited to developing the social and cultural dimensions of literacy, such as helping children see how reading and writing can be intrinsically rewarding and relevant to their lives (Spielberger & Halpern, 2002). Program developers seeking to design or strengthen after-school interventions for their struggling students can find some useful guidance from research on the effectiveness of after-school programs. Findings from out-of-school time analysis of research, for example, point to potentially effective ways of providing students with instruction and related experiences that can help them advance their reading achievement.

Studies by organizations like Citizen Schools and the Boys and Girls Club have shown that children who participate in after-school programs often have higher attendance during the school day, even though most after-school programs do not actively encourage that attendance. (It's been suggested that the supportive environment fostered by good quality after-school programs stimulates more interest in school.) Research has also shown that kids who have poor school day attendance as early as kindergarten are much more likely to drop out of school and remain behind grade level year to year (Foley et al., 2001).

Conceptual Framework of After-School Literacy Program

One of the most important outcomes of an effective after-school program is improved learning. After-school activities shown to be the most successful in raising achievement include reading aloud, dramatization, and book discussion, according to the Northwest Regional Educational Laboratory (NWREL) 2005 literature review,

Literacy in Afterschool Programs. Such efforts are most effective when they incorporate hands-on, project-based activities led by an enthusiastic adult expert and directed toward a real-world audience (Rowe, 1998).

Learning theory supports the use of drama in the classroom. From his extensive research on child development, Piaget found that language development goes through three stages: actual experience with an action or object, dramatic reliving of this experience, and words that represent this whole schema verbally. From Vygotsky's socio-historical theory of learning, *activity* is the major explanatory concept in the development of human thought and language. The use of drama in the classroom, then, reflects a social constructivist perspective of learning that is active, social, centered in students' experience, and provides an effective way to teach not only the arts, but language, literacy, and other content (Vygotsky, 1986).

Story dramatizations are based on a story that students are familiar with. While it is planned by students, a script is not necessary. Students know the story and characters well enough to improvise action and dialogue. The dramatization can be recast with different students playing different parts each time it is played so that everyone has an opportunity to step into the roles. Many stories have characters and elements that can be played by several students so that all can participate in a story dramatization. Research has shown the positive effects of improvised story dramatization on language development and student achievement in oral and written story recall, writing, and reading for both younger students (Hudgins & Edelman, 1986) and students through my Story and literature dramatizations give students an

opportunity to act and explore characters, bringing literature to life. Acting out characters' parts engages students while building critical reading skills.

After-school provides the perfect setting for dramatizations. After a day of sitting in classes, students can move around and act things out while building literacy skills. While some programs mount full-scale theatrical productions, there are any number of ways that dramatization can be integrated into afterschool activities through finger puppets, rhymes, reader's theater, or songs. This practice is especially effective for English language learners because it employs multiple learning modalities (physical, visual, auditory, etc.) that have been shown to reinforce language learning. Repeated readings of a script and practicing line delivery build fluency and expressiveness in English, and the collaborative nature of the practice provides essential opportunities for interaction (Eeds & Wells, 1989.) Pantomime and follow-up discussions can be very effective for the integration of language and meaning. Many students who are learning English may not have the same background knowledge related to text structure and content as native English speakers. For example, they may be unfamiliar with the format of a theatrical script, or with a fairy tale that is traditional in this culture (such as *The Three Little Pigs*). When choosing texts for this activity, select from a variety of culturally relevant texts, gauge students' levels of background knowledge, and provide additional explanation and instruction where needed (Rowe, 1998).

Children can be motivated to read if they are given the opportunity to share books with peers. When they have a discussion their enthusiasm for reading grows and their comprehension improves. Children need a place where they can voice their different interpretations of a text. Afterschool discussion groups are a time for children to

come together and share their enthusiasm for a book without the pressure of being ridiculed or the worry of receiving a grade. Book discussions encourage communication and interaction between children of different cultures, race and creed. They provide an opportunity for children to discuss issues and controversial topics that are otherwise hard to talk about. Under the guise of discussing characters in a book, children are able to express their true feelings. In a book discussion group children have an opportunity to be listened to (Rowe, 1998).

Family Involvement and After-School Programs

For most full-time employed parents, the gap between the end of the school day and the time they arrive home from work adds up to about 20–25 hours per week. Thus, many parents look to after school programs to satisfy their desire for safe, enriching experiences for their children while they are working. Research shows not only that parent involvement in schools contributes to children's academic success, but also that parent involvement in after-school programs makes a difference in children's lives (Jehl, Blank & McCloud, 2001). Children and youth spend most of their waking hours outside of school, and as they get older, they spend more and more of those hours in structured programs and activities. Growing research evidence reveals that students' participation in after-school activities can help them succeed in school and can stimulate their educational aspirations (Boethel, 2003). When parents get involved in their children's after-school activities, these benefits can be even greater. Connections between families and after-school programs are an integral part of the network of learning supports that Harvard Family Research Project calls *complementary learning*. For children and youth to be successful from birth through adolescence, they must be

surrounded by an array of learning supports, such as families, after-school programs, libraries, museums, and health and social service agencies. These learning supports should connect with each other and with schools to form a network around children and youth.

It is crucial for parents to feel a part of their child's after-school program. There are several ways that educators can successfully involve parents in the process: - For example, involving families in program planning that is specifically designed to include families and children in the planning, will draw greater support from participants and their families and from the community at large. These programs also tend to be more fun, culturally relevant, and linked to activities that capture children's and adolescents' interests. Successful programs seek to involve parents in orientation sessions, workshops, volunteer opportunities, parent advisory committees, and, as possible, in a wide range of adult learning opportunities, such as parenting education, computer training, and English as a Second Language (Epstein, 1987). Another consideration is attending to the needs of working parents – good programs are aware that their customers are not only the children they serve, but their families, as well. In doing so, programs are designed that are sensitive to the schedules and requirements of working parents. Accommodating family schedules is another important element -Not only are activities scheduled during after-school hours, but activities are also scheduled for the morning hours before school, when many parents are either commuting to work or already at the workplace. In addition, learning, enrichment, and recreation activities are developed for operation during school holidays and summer breaks for the children of working parents and others. Making after-school programs affordable is an important

factor for working families, also. Good programs make accommodations for the likelihood of enrolling more than one child in an after-school program (or programs) and work hard to design cost-effective programs that can meet the needs of elementary school children, as well as middle school students. The key is not necessarily that siblings be in the same program, but rather that all children in a family can be served by an after-school program in a convenient and cost-effective manner. Tending to transportation- In addition to meeting scheduling and cost needs, - will provide programs which can ease parental stress by providing transportation to and from the before- and after-school programs. Transportation, in particular, is a major cost for an extended day program, but one that is especially a safety and logistical concern for families (Caplan, 2000).

It is clear that students achieve more when parents provide good reading materials in the home, monitor the television, supervise homework, and hold reasonably high expectations of their children's performance. Most parents help their children through their past school experiences and knowledge of school subjects. Most parents across all grades want more information about their children's homework, homework policies, and tools for helping their children. According to Epstein (1986), 85 percent of parents spent 15 minutes or more helping their children at home when requested by teachers. These parents stated that they were willing to spend an average of 40 minutes with their children if they had directions from the teacher about how to help their child. Over 90 percent of parents reported that they assisted their children with homework occasionally, and fewer than 25 percent received requests and directions from teachers on how to assist children with specific skills. Having prepared materials

and activities for parents to work on with their child(ren) at home will facilitate the ease of implementing the at-home component(s) of the program.

There are many activities that parents can work with their children at home to ensure that learning continues after the regular school day. One popular activity involves reading with your children and creating fun extensions of the books through art or music. Sending home kits that are theme based in which each kit includes a book with follow up hands-on activities that the children and parents can work on together at home. These kits can be checked out by the children for a week. Another inexpensive way of promoting parents' involvement with their children's learning is by showing these parents how to use household materials to teach children without having to spend a large amount of money on materials. Each week HLE activities are sent home with the child. An activity card includes the name of the activity, the purpose of the activity, materials needed, directions on how to do each activity, time needed for completion, adaptation ideas, and an evaluation form for parents to complete. Allowing the parents opportunities to check out books, materials, and audio- and videotapes in which teachers demonstrate or model a certain skill or activity can help the parents monitor their children's reading throughout the school year. Children also have the opportunity to check out books, magazines, toys, and home-learning activity kits. (Epstein, 2001; Patton & Jones, 1997).

In order for these at home activities to be successful, it is crucial to provide the parents with information and training sessions to explain what home learning activities entail early in the year, such as during an open house or parent meeting. Training sessions should be offered throughout the year to provide opportunities for teachers to

demonstrate sample activities and for parents to practice the strategies. This also allows teachers and parents to share ideas. The activities that are given to parents are designed to be completed in short periods of time. For families with very young children, design activities that can be incorporated into the child's daily routine, such as mealtime, bedtime, and bath time. Making the children's homework interactive that requires interaction and discussion with parents, family and extended family members, or community members helps the children with vocabulary and oral speaking skills as well as builds their self-confidence. Allowing easy access of activity resources or materials is also very important. If materials are not provided for parents, then the materials should consist of common household items with special precaution for safety and age-appropriateness of the materials used (Patton & Jones, 1997)

Inviting parents to the school for an end-of-the-program celebration that highlights the children's accomplishments is crucial to involving the parents in the afterschool program. Parents appreciate being invited in to the school for positive celebrations and rejoicing in the success of their students. This piece is essential to making the most out of the afterschool program parent engagement component. Parental involvement in a child's education is an advantage that money cannot buy. All parents, regardless of economic status, race, or primary language, can do simple things like asking a child about school or attending a parent-teacher meeting. Being involved in your child's education not only helps your child to achieve more academically, but it also lifts teacher morale and provides you with the satisfaction of making a difference in your child's education (Epstein, 1986).

Summary

Well-implemented, quality after school programs can support healthy learning and development when the key factors described above are addressed. They also demonstrate how complex it is to provide excellent, effective supports for youth and their families. As national conversations turn toward reframing the traditional school day and year, there remains much to be gleaned from 10 years of research and evaluation about what works to support student learning and success. While it is true that after school programs have the *potential* to impact a range of positive learning and developmental outcomes, the reality is that some programs are not maximizing this potential. Research and evaluation point to three primary and interrelated factors that are critical for creating positive settings that can achieve positive youth outcomes: access to and sustained participation in the program; quality programming and staffing; and promoting strong partnerships among the program and the other places where students are learning, such as their schools, their families, and other community institutions. When these three factors are successfully addressed, after-school programs are most likely to be able to realize their goals and achieve successful outcomes for youth (James-Burdumy, Dynarski, Moore, Deke, Mansfield, & Pistorino, 2005).

CHAPTER III

METHODS

The purpose of this study was to determine whether an after-school literacy program that focused on reading and literacy strategies would increase the overall reading comprehension performance of low-performing, high-poverty Title I students.

Design

This study employed a quasi-experimental research design that compared the reading comprehension scores of two groups of students on the Anne Arundel County, Maryland, Public Schools Language Arts Benchmark Assessment. One group received an after-school literacy program that consisted of 180 minutes of reading and literacy strategies each week for a total of six weeks. The other group did not participate in an after-school literacy program and therefore did not receive any additional time on reading and literacy strategies. The pretest administered in the autumn and the posttest administered during the winter scores from the Benchmark assessments will determine whether any growth was made in reading comprehension.

Participants

The participants in the study consisted of 20 students enrolled in two fourth grade classrooms at two public elementary schools located in Anne Arundel County, Maryland. Anne Arundel County consists of 78 elementary schools, where 12 of these schools are identified as school wide Title I Schools. These 12 schools have over 55% of their total population who qualify for free or reduced priced meals.

The school that hosted the treatment group was a Title I School. The other school was not a Title I school because their percentage of students who qualified for free or reduced priced meals was lower than the county's cutoff for schools that qualified for Title I funds. Both schools were located in Annapolis, Maryland. The Title I school's student enrollment was 406 students and comprised of African American students (61.2%), Hispanic students (33.5%), and Caucasian students (5.5%), with over 86.4% who received free or reduced price meals. The non-Title I school's student enrollment was 465 students and comprised of Caucasian students (89.6%) and African American students (10.1%).

The subjects who received the after-school literacy program in the Title I school consisted of 10 students; 3 females and 7 males. Within this treatment group, one student received special education services through an Individualized Education Program (IEP). All ten students were African American students, all qualified for free or reduced priced meals, and all were identified as lowest-performing students in their grade level in reading based on the 2012 fall administration of the AACPS Language Arts Benchmark Assessment.

The subjects who did not participate in the after-school literacy program consisted of 10 students; 5 females and 5 males. Within this comparison group, none of the students qualified for free or reduced priced meals, all were Caucasian, and all were identified as lowest-performing students in their grade level in reading based on the 2012 fall administration of the AACPS Language Arts Benchmark Assessment.

The researcher chose a fourth grade classroom for this study because there was a very large amount of students who performed at the basic level on the fall administration of the AACPS Benchmark compared to the other grades that took the test. The students in both groups were selected as being the lowest ten students in that grade level in reading. These students were invited to participate in the after-school literacy program and all 20 students accepted the invitation to join the program.

Instrumentation

The Anne Arundel County Public Schools Reading Benchmark Assessment for the fourth grade was a group administered and timed assessment. The assessment was comprised of three sections and designed to measure student performance in reading. The three sections were word study, vocabulary and comprehension. The researcher used the comprehension section to assess the student's comprehension performance. The comprehension section included five short passages, nonfiction and fiction, with 17 selected-response and four brief-constructed response questions. The brief-constructed response questions reveal the students' ability to construct meaning while reading a passage by writing out their responses in a paragraph like format.

Test items for these Reading Benchmark Assessments were purchased from a standardized item bank published by Harcourt Publishing, Inc. The items were selected by *p*-values. The *p*-value refers to the test item's difficulty level. It is calculated as the proportion of a specific group that answers a test item correctly. *P*-values range in value from 0.0 to 1.0, with lower values corresponding to more difficult items and higher values corresponding to items that are deemed easier. During test construction, the

Reading Office of AACPS along with selected reading teachers across the county, attempted to average out the p -values so that the benchmarks assessments were close to a 0.6 p -value. This information only applies to the selected-response test items. The reading office created a county-wide rubric for the four brief-constructed response items, which are typically scored by the teachers in the schools. These items are considered to be less reliable statistically due to teacher subjectivity. The Anne Arundel County Testing and Accountability Office has run studies that indicated the AACPS Benchmark assessments were very good predictors of MSA success, with about a 0.8 correlation.

Procedure

Groups were formed by identifying the lowest performing students on the 2012 fall administration of the AACPS Language Arts Benchmark Assessment. The researcher took the comprehension scores from the Language Arts Benchmark for the identified students and used this score as the pretest achievement level for this study. Following the pretest, students in the after-school literacy program received small group reading and literacy intervention in addition to their daily reading instruction program. The control group received regular daily reading instruction with no after-school instruction.

During the literacy after-school program, the students in the treatment group received two 90 minute sessions each week for a total of twelve sessions. The structure and implementation of the after-school program consisted of several key components that remained the same for each session. The first fifteen minutes involved

homework time and snack time where a healthy snack and bottled water was given to each child. During this time, the children were asked to review their homework that was given to them during the school day and have the teacher respond to any questions that the students may have had. The completion of the homework was done at home. Next, there was thirty-five minutes of directed reading instruction using the Scholastic Comprehension Themed Club kits where the teacher worked with the themed comprehension kits to engage the students with authentic fiction and informational texts that builds knowledge and academic vocabulary. The teacher shared a different reading strategy during each session and utilized the text to review that strategy. Then thirty minutes of small group instruction was conducted and activity centers that enabled the teacher to meet with small groups of 3-4 students for ten minutes at a time convened. The teacher utilized leveled texts that matched the student's reading level while reviewing the comprehension strategy with this small group. During this time, the students not meeting with the teacher were able to select an activity/game that reviewed vocabulary and fluency. The students also had the opportunity to self-select and read various leveled chapter books and perform story dramatizations with their peers and share these presentations with the class. The last ten minutes of each session incorporated brain gym activities and movement. During this time, the teacher worked through various brain gym exercises as well as fitness and movement with the students to increase their blood flow to their brain and to get them up and moving at the end of each session to prepare them to go home and continue reading with their families.

Each week, the parents were invited to attend the after-school program to work with their child on different reading activities/games that can be performed at home. The

parents were given materials to make-and-take home to use with other family members. During this parental time, the teacher shared various reading strategies that were being used during the regular school day and gave the families various children's books to reinforce the strategy at home.

Students in both the treatment and the control groups were given the winter administration of the Anne Arundel County Public Schools Benchmark Assessment which was used as the posttest for this study. An analysis was done comparing the reading comprehension scores from the fall and the winter administration of the AACPS Language Arts Benchmark Assessment for all 20 students. The results of this analysis are discussed in Chapter Four of this study.

CHAPTER IV

RESULTS

The purpose of this study was to determine whether an after-school literacy program improves reading comprehension for low-performing, high-poverty Title I fourth graders compared to a group of non-Title I students who did not participate in an after-school literacy program.

Pre and posttest Language Arts Reading Benchmark scores were analyzed for Title I students participating in an after-school literacy program and non-Title I students who did not participate in an after-school literacy program using a t test for independent subjects.

Table I, presented on the following page, contains the pretest and posttest for Title I students participating in an after-school literacy program and non-Title I students who did not participate in an after-school literacy program. The reading comprehension scores from the AACPS Language Arts Benchmark for the fall and winter were utilized for both the experimental group and the control group.

Table 1

Test	Group	Mean	Standard Deviation	t	Significance
Pretest Fall AACPS Benchmark	Title I	46.0	16.38	3.32	0.006*
	Non-Title I	65.0	7.72		
Posttest Winter AACPS Benchmark	Title I	51.3	15.54	4.16	0.001*
	Non-Title I	74.5	8.37		

* $p \leq 0.05$

The results reported in Table I indicate that there was a significant difference in the reading comprehension performance of students on the pretest and the posttest in the experimental (i.e. Title I students in the after-school program) group (0.006) compared to the control (i.e. non-Title I students who were not in an after-school program) group (0.001) between the fall and the winter administrations of the 2012-2013 AACPS Language Arts Benchmark. Due to the fact that the significance .006 and .001 are smaller than .05, this indicates that the two groups are significantly different.

In order to determine whether the difference reported in Table I between students receiving the after-school literacy program and students in the control group, a t test for independent group procedure was used. These results ($t=3.32$, significance = 0.006) and ($t=4.16$, significance = 0.001) where $p \leq 0.05$ suggest that there was a statistically significant difference between the reading comprehension performance of

students in the experimental group who participated in an after-school literacy program when compared with the control group who did not participate in an after-school literacy program. The non-Title I students who did not participate in the after-school literacy program scored significantly higher on both the pretest and the posttest of the reading comprehension portion of the AACPS fall and winter Benchmark assessments than the Title I students who attended the after-school literacy program on a consistent basis.

The null hypothesis that there will be no significant difference in reading comprehension scores of low-performing, high-poverty Title I students who are participating in an after-school literacy program and the reading comprehension scores of non-Title I students who are not participating in an after-school literacy program is rejected.

CHAPTER V

DISCUSSION

The purpose of this study was to determine whether an after-school literacy program improves reading comprehension for low-performing, high-poverty Title I fourth graders compared to a group of non-Title I fourth grade students who did not participate in an after-school literacy program as measured by the Anne Arundel County Language Arts Benchmark Assessments. The null hypothesis of this study was that there would be no significant difference in the performance of fourth grade students who participated in an after-school literacy program and the performance of students who did not participate in an after-school literacy program as determined by the reading comprehension performance on the Anne Arundel County Language Arts Benchmark Assessment. However, the non-Title I students did perform significantly higher than the Title I students on both the fall and winter administrations of the Language Arts Benchmark Assessment.

Implications

While the non-Title I students had significantly higher reading pretest scores than the Title I students, it was hoped that participating in an after-school literacy program would close the gap between these two groups of children. The results however concluded that the non-Title I students scored significantly higher than the Title I students on both the pretest and the posttest. Even though it is important that the students did attend the program on a consistent basis, and they were able to maintain

progress on their reading comprehension strategies rather than drop in scores which has typically been observed in the past, the researcher was expecting to see some form of upward trend of improvement in reading comprehension scores for the Title I students. The non-Title I students who did not participate in the after-school literacy program continued to demonstrate significant growth on the pretest and posttest in reading comprehension. These non-Title I students generally do not demonstrate any loss of comprehension during the school year and typically make great gains in the fourth grade reading program.

Looking at previous MSA scores and reading benchmark assessments, Title I students have difficulty maintaining positive growth during the school year as the reading curriculum gets increasingly more difficult. The students who participated in the after-school literacy program were able to sustain development of basic reading strategies during the period of this research.

Since Title I students do not typically get extra reinforcement for their school work at home, allowing them to participate in an after-school literacy program can give them that extra support in reading. The after-school program included many different aspects involving the reading curriculum but allowing the students extra time each day to work on skills taught during the day may help them make positive gains on a daily basis. Changing the after-school literacy program to a “homework club” where students are given ample opportunities to reflect on what was taught that day and to allow them to work with their teacher to understand any concepts that they are struggling with may be more beneficial to them than a “literacy only” after-school program. This would be

another study that I would be interested in conducting to see if the Title I students made better gains in all subjects than just concentrating gains in their reading comprehension.

Threats to Validity

One of the threats to validity that the researcher recognized would be student maturity level and growth. Students naturally mature at different levels, especially beginning in the fourth grade where many of the females begin puberty. This early maturation of the females may have produced varied results in the study. If the females are more mature than the males, then they may have better test taking skills and better focus during the Language Arts Benchmark Assessment.

Another threat to validity could be that the Title I students had two different teachers in this research. The students who participated in the after-school literacy program had a different teacher in the program than their daily classroom teacher. This change of teachers may have impacted their results because it may have taken a while for the students to get comfortable working with another teacher.

The ten students in the Title I group were all African American and the ten students in the non-Title I group were all Caucasian. The researcher is unsure if the students' race is considered a threat to the validity but the researcher does deem it important to take notice of this information for the purpose of this study.

Lastly, another threat to the validity is the high level of poverty that the Title I students experience on a daily basis. This may be the underlying difference between the African American and Caucasian students. The Title I students typically live in a one

bedroom apartment along with many siblings who are being raised by a single parent or a grandparent. These students typically come to school hungry and tired. They may not be receiving any reading support at home and the only supplemental reading they may be receiving is at school during their daily reading instruction or during the after-school literacy program. The researcher is cognizant that these threats to validity are “soft evidences” of what can happen to the validity of a research but they are particularly important to take notice of since this level of poverty affects our Title I children on a daily basis.

Comparison to Findings

In the United States, the gaps in achievement between poor and advantaged students are substantial (Rowan et al., 2004). In 2001, the U.S Department of Education released results that clearly demonstrated that student and school poverty adversely affected student achievement. Retention and special education placement are largely determined by reading performance. The inability to read is correlated with a number of social problems that plague society’s youth, such as delinquency and teenage pregnancy (Dyson, Hett, & Blair, 2003). Unfortunately, poverty, more than any other social problem, impedes children’s literacy. The research correlates with the notion that poverty does have a substantial effect on student academic performance. The results of the research demonstrate that the Title I students did significantly more poorly than the non-Title I students on the comprehension portion of the reading benchmark assessments. The students living in poverty do not typically make significant academic

gains when compared to their more affluent peers. Sadly, the achievement gap between poor and advantaged students continues to remain substantial.

Many school children might otherwise go home and fail to tend to homework in a structured environment, but the after-school curriculum can end up becoming an extension of the learning that takes place in school all day (Foley et al., 2001). Since the research did not provide evidence that the Title I students' reading comprehension performance improved, it did however keep the Title I students safe in a structured environment. The students were fed a snack, were able to complete their reading homework with the support of a classroom teacher, and performed various read-alouds and story dramatizations that they may never have experienced if they had not been a part of the after-school program.

According to Slavin et al., (1989) the negative spiral that begins with poor achievement in the early grades can be reversed. Allowing students to participate in after-school programs can only enhance their learning capacity and reverse the negative spiral that Slavin and Madden refer to in their study. The students who were selected to participate in this study did better academically when compared to Title I students who did not participate in the study. This fact supports the importance for Title I schools to continue to offer after-school programs for their most needy students.

Future Research

The researcher proposes two other avenues for future research regarding academic achievement for Title I students: a program that incorporates other content areas in addition to reading, which may help the student's overall academic progress and a larger amount of time for brain gym activities, beginning when the students first arrive to the after-school program.

The students have other difficulties besides just reading and allowing them to focus on other content areas during the after-school program may enable the students to perform at a higher academic rate in other subject areas. The students' mathematics scores are low and having the time to spend on the re-teaching of mathematical concepts may help the students do better in mathematics on a daily basis as well as reading.

When the normal school day ends and the students arrive at the after-school program, they are generally tired from sitting all day. It makes sense to incorporate the brain gym exercises at this point in time and not at the end of the program like the researcher had them do in the study. The brain gym activities allow the blood to flow from the brain throughout the body to activate the brain to be ready to learn. Instead of having this activity at the end of the program, it should be at the beginning. This will allow the students to become ready to learn.

Future research should allow more time for the after-school program than the six weeks that were allotted in this study. Having students attend more than a total of

twelve sessions may improve their overall academic achievement. Although research on such activities is limited, the encouraging news is that after-school programs can raise reading achievement among struggling students, according to a recent research synthesis of 56 rigorous studies conducted over the past 20 years (Ryan et al., 2002). Concurring with Ryan, Foster and Cohen and implementing the after-school program for the entire school year may actually raise overall achievement in our neediest students.

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