

**The Effect of Leveled Reading Homework Programs on
Reading Comprehension of Second Grade FARMS Students**

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ABSTRACT

The purpose of this study is to investigate the impact of assigning leveled books and reading responses as homework on the reading comprehension of low socioeconomic second grade students. The measurement tool was the Fountas & Pinell Benchmark Assessment. This study involved use of a pre-test/post-test design to measure the data collected from the benchmark assessments. Reading levels increased overall among students who participated in the homework program. However; comprehension scores did not reach a level of significance with students who participated. Research in this area should continue as there is a current need for improving literacy with students who are living in poverty and reading comprehension is the overall goal of literacy instruction.

CHAPTER I

INTRODUCTION

Throughout the years, reading comprehension has been a subject of much research in the educational field. The reading research community has always been interested in understanding the effects of poverty on reading comprehension. Among this research there is a clear correlation between low socioeconomic status and poor reading comprehension. Many factors can cause poor reading comprehension when a child is coming from poverty. One of the factors is their home literacy environment. Horowitz, Kraus (2015) defines the home literacy environment as environmental factors such as exposure to written language, the number of books in the home, and the level of dialogic or interactive parent-child reading.

A majority of the students that attend the elementary school in this study live in a suburban community and come from high poverty neighborhoods and home environments. Many of these home environments lack characteristics of literacy that a child needs in order to develop proper reading skills and understanding. Students lack exposure to books at home that are on their appropriate grade level and neglect to spend time discussing books or engaging with them with others in their home environment.

The site of this research is a school that has a large population of students who are not meeting grade level expectations when it comes to reading. Part of the School Improvement Plan for all elementary schools in the county, is to have 80% of students reading on or above grade level by the end of second grade in order to prepare them for the intermediate grades. As stated in the literature review, students show success when the literacy environment in their home is thriving. The findings from this research will provide insight as to whether or not these

supplemental homework activities could benefit other elementary schools with similar populations and needs.

Statement of the Problem

The purpose of this study is to investigate the impact of assigning leveled books and reading responses as homework on the reading comprehension of low socioeconomic second grade students.

Hypothesis

The null hypothesis is that when assigned leveled books and reading responses are given as homework, there will be no impact on the reading comprehension of low socioeconomic second grade students.

Operational Definitions

The following are the definitions for specific vocabulary used throughout this study:

- ***Home-literacy environment***: Environmental factors such as exposure to written language, the number of books in the home, and the level of dialogic or interactive parent-child reading.
- ***Socio-economic status***: The economic and sociological measure of a family's economic and social position according to their income, education, and occupation.
- ***School-home connection***: The collaboration between teacher and parent in developing a child's educational achievement. This can include parent conferences and communication via email or phone between the teacher and the parent of the child. It also refers to the parents' support at home with reading assignments and activities given by the teacher.
- ***Fountas & Pinnell Benchmark Assessment*** (according to their website): "a teacher's resource to accurately and reliably identify each child's instructional and independent reading

levels...with precise tools and texts to observe and quantify specific reading behaviors, and then interpret and use that data to plan meaningful instruction”. (Fountas & Pinnell, 2018).

- ***Reading accuracy:*** The measurement of reading words in text according to the number of errors made. When considering a student’s reading level, they need to have greater than 90% reading accuracy in order to consider the text as a student’s instructional level.
- ***Reading comprehension:*** The measurement of the ability to understand what is being read and apply it to prior learning and experiences. Reading comprehension is the ultimate goal of reading. A student must show a limited understanding of the text or greater in order to consider the text as a student’s instructional level.
- ***Instructional reading level:*** This is the level at which a student is not struggling with the text, but is also not completely independent. This is the preferred level for instruction because the student has the ability to access and understand the text along with the teacher’s support which allows the capability for growth.
- ***Independent reading level:*** The level that a student can read and comprehend independently or with no assistance from the teacher. This is recommended for students to use when they are practicing a learning literacy skill during self-reading activities.

CHAPTER II

REVIEW OF THE LITERATURE

Overview

This literature review examines the environmental impact on reading achievement while looking specifically at socioeconomic backgrounds and home reading literacy environments. The first section of this review defines the environmental factors that could impact a child's literacy skills and development while addressing how it also stimulates brain development associated with reading skills. The second section of this review focuses on the history of trends between low socioeconomic status and literacy achievement. This section defines socioeconomic status and how it is a large contributor to reading skills, especially in early childhood development. Motivation is also explored in this section and describes the impact of intrinsic motivation in the home environment on student reading achievement. The final section explores strategies and benefits of school-home literacy connections with views on parental and teacher collaboration to help build successful and independent readers.

Environmental Impact on Reading Comprehension

Home Literacy Environment

Home literacy environment is defined as environmental factors such as exposure to written language, the number of books in the home, and the level of dialogic or interactive parent-child reading (Horowitz-Kraus & Hutton, 2015). Much research has been done on the impact of the home literacy environment on reading achievement in elementary-aged children including how the home environment stimulates potential for reading growth in the brain. When there is a supportive home literacy environment, the child's cognitive abilities interact with it and

use this environment to build neural circuits that are necessary for decoding and comprehending text us. Therefore, a supportive home environment can help students come to school with pre-existing literacy skills and strategies to help them develop strong reading skills. In a study conducted on home reading environment and brain activation in preschool children that listened to stories, the results showed that positive home reading environments are positively associated with activating areas of the brain that support narrative comprehension and mental imagery (Hutton, Horowitz-Kraus & Mendelsohn, 2015). When considering why a child's environment is such a huge influence on their reading achievement, educators should be aware of children who do not have access to a supportive home literacy environment. Children of lower socioeconomic status (SES) and second-language households are often exposed to under-stimulating home literacy environments which can lead to reading difficulties (Horowitz-Kraus & Hutton 2015).

Theory and Research

The topic of lower SES and reading achievement has had a long history in research since the gap in student achievement became overwhelmingly apparent between children in low socioeconomic environments. When reviewing this historical research, reading test scores for children who have “higher risk” values (ex: parents who didn't complete or only completed high school and free and reduced meal programs) are considerably lower than their “lower risk” (parents who completed college and are not in the lunch program) peers (Miranda, Kim, Reiter, Overstreet-Galeano & Mason, 2009). Elementary school-aged children transfer from learning to read, to reading to learn around the time of their second grade year. If a child is unable to reach this goal, they are considered to have a reading difficulty (Horowitz-Kraus & Hutton, 2015). In lower SES homes you will often find children who are not very motivated to read, especially if they are

disinterested in reading or believe they are a “bad reader”. Students are aware of when they are struggling and can tell the difference between their reading achievements compared to their peers. The theory of self-determination states that feelings of competence and relatedness affect intrinsic motivation in students (Silinskas, Kiuru, Aunola, Lerkkanen & Nurmi, 2015). When studying this theory, it has shown that low intrinsic motivation leads to a slower development of academic performance. Children who are confident in their school achievement can increase their intrinsic motivation and academic performance. To summarize, previous history and theory suggest that children need a strong intrinsic motivation in order to develop better reading skills. Students who are from lower SES families are more susceptible to having low intrinsic motivation which makes them more likely to have reading difficulties by the end of second grade than their average SES peers.

Literacy and Low Socioeconomic Status

Socioeconomic Status

When a family has a lower socioeconomic status (SES) they usually live in a poverty-stricken area while the children receive free and reduced meals (FARMS) from public school systems. Historically, research suggests that the effect of early income on academic skills determines a set trajectory for students that are difficult to alter (Votruba-Drzal, 2006). Studies on socioeconomic status explain that children from low SES backgrounds have weaker literacy skills when they are compared to their peers from average SES backgrounds. This causes them to enter school without a basis for learning and causes the reading achievement gap to increase with each level of complexity in the school curriculum (O'Connor, Arnott, McIntosh & Dodd, 2009). Since most essential literacy skills are obtained and mastered during early childhood, when a

family has a lower SES during that time it is very likely that the children will struggle with gaining those essential skills in the early grades which can set them on a pathway of reading difficulties that may continue into middle childhood if not addressed appropriately.

Trends and Patterns

In the past, many educators have discussed the achievement gap in education. In the earlier focus on the gap, researchers focused mainly on the achievement gap according to race. Now that there are many ethnicities falling into the lower SES category, the achievement gap between socioeconomic backgrounds has now become the primary focus (Gaddis & Lauen, 2013). Researchers have noted that even when children from these low SES families are put into early intervention programs, they still score lower than average SES peers in reading achievement. (O'Connor et al., 2009). The trend in research is that much of these reading difficulties and differences reflect back to the child's home literacy environment. Families from lower SES do not always have a stimulating home literacy environment. Teachers can provide extra reading practice and homework for these students if their home environment allows for it to be used successfully. Recent studies have shown that homework and parental income significantly interact in predicting gains in academic achievement in reading (Cornelli & Richards, 2010). Parents from average SES families tend to value homework and model how to use homework successfully at home to help their children succeed. Lower SES families however; have been shown to not have the highest value for homework or they often do not know how to help support their child with their homework if they struggled with academic performance themselves. The children analyze how their parents value their homework and often take on the perspective for themselves toward their own educational achievement.

Home-Learning Strategies and Benefits

Intervention and Strategies

When considering strategies or interventions to implement with children who have lower reading achievement, it is important to consider their home learning environment. Children with environmental illiteracy require more comprehensive, increased exposure to oral and written language to develop reading skills (Horowitz-Kraus & Hutton, 2015). Providing homework for these students could be beneficial by giving them the chance to have more exposure to literacy in their home environment. Issues concerning the appropriate amount of homework and the selection of appropriate selection of meaningful reading work are challenging for teachers. The assignments need to be meaningful, motivating, and not lengthy. (Cornelli & Richards, 2010).

Parental Involvement

As reflected in the previous section, parents have a direct effect on how their children value their work at home and school. The way parents approach homework has been found to contribute to children's academic performance (Silinskas et al., 2015). If the homework is simple, yet meaningful, and built with an instructional purpose, parents in lower SES families can help monitor and support their children with the activities. Consistent activities and repetitive strategies that are selected according to a child's reading level are easier for the child to work on independently, and therefore, more manageable for lower SES parents to provide time and feedback for the assignments. Parents who help build autonomy with children's homework promote motivation and increase intrinsic motivation in academic contents. The more a child feels successful at completing their reading homework at home, the more motivated they become to accomplish other reading-related tasks. Even strategies as simple as parental read-alouds are

supportive to a child's reading achievement. Educators learn through their training that parent reading aloud to children was the most simplistic way to provide a positive home literacy environment. A study by Horowitz-Kraus and Hutton (2015) demonstrated that an association between parent-child reading exposure and the part of the brain that supports semantic processing existed regardless of SES. Despite their home-life situation, children who listened to stories being read to them were able to activate areas in their brain that were associated with growth in reading skills. Read-aloud strategies are an option that can be provided to parents of lower SES students as a simple and meaningful reading homework assignment.

School-Home Connection

The home and school together represent important sources of influence that may overall be responsible for SES differences in academic outcomes (Crowe, McDonald-Connor, & Petscher, 2009). Teachers often contact and discuss their student's' progress with parents. However, that does not always mean that teachers and parents always have a strong home-school connection. This requires parents and educators to work together in benefitting the child's academic success. When a child is exposed to a positive literacy environment at school, they can benefit from carrying that literacy environment into their home. Literacy environments can be broken into two groups: formal literacy (word attack strategies and decoding) and informal literacy (reading aloud and book talks). Formal literacy activities at school provide students with the decoding strategies they need to approach and unlock a text. Informal literacy activities, that can be provided at home by parents as well as by teachers, help expose students to various texts, structures, and vocabulary (which most lower SES students lack or have a deficiency). Since the formal literacy environment is linked to growth in reading, and the informal literacy is linked to

growth in oral language, together they are essential to reading achievement (Sénéchal & LeFevre, 2014). Parents and educators should note that increased exposure to written materials and storytelling facilitates the key components essential for intact reading and is highly recommended as an everyday activity (Horowitz-Kraus & Hutton, 2015). If there is a strong literacy environment in school but not at home, the child is less likely to grow as a reader. Creating a strong school-home connection can be a solution for many lower SES families who have children struggling with literacy skills. Teachers can provide information on what a child's specific reading needs are and can even distribute materials to parents to use at home when working with their child. Educators who combine meaningful reading homework practices and creating strong school-home connections can help build more confident readers from low SES families, and help prevent them from future reading difficulties.

SUMMARY

The literature suggests that there is a strong relationship between low SES and low test scores. This is usually due to the influence of environmental factors, such as lack of stimulation in home literacy environments that prevent these students from acquiring basic reading skills prior to entering grade school. When students reach a certain age level (usually in second grade) these reading skills are essential for them to continue their education and be successful in reading achievement. If they do not have the necessary literacy skills by second grade, they are considered to have reading difficulties, which will make it more difficult for them to develop their skills as they reach each new grade level. Children who can develop a strong intrinsic motivation about their reading practice have a better chance to become independent readers. Parental involvement can either strengthen or weaken a child's intrinsic motivation. Parents who

are able to show more value in home learning and reading activities, will be able to support their child's motivation for learning and help them build confidence and skills. Positive relationships between parent involvement and home literacy on reading comprehension are evident in the literature, and therefore should be considered, when educators are focusing on implementing strategies or interventions for students from lower SES families. When a strong home-school connection is established, along with a motivated child through a home reading program, reading achievement can improve and help close the achievement gap among students from different socioeconomic backgrounds.

CHAPTER III

METHODS

The purpose of this study is to investigate the impact of assigning leveled books and reading responses as homework on the reading comprehension of low socioeconomic second grade students.

Design

This research is based on a quasi-experimental single group design with a pre-and post-test. The participants were selected based on their current reading levels. The reading levels will be evaluated before and after the experiment along with the levels of their peers that did not receive the individualized homework program.

Participants

This experiment took place in an elementary school in Anne Arundel County, Maryland that hosts grades Pre-K through fifth grade. Of the twenty-three students in the second grade class, there are fifteen students who receive free and reduced meal plans (FARMS) due to their socioeconomic status levels. Of the twenty-three students in the class there are thirteen students who have not met the grade-level reading expectation for the 2nd grade level. Six students of those not meeting the grade-level reading expectations are also FARMS students. Figure 1 shows the thirteen students and their current running record scores as well as their FARMS status in the school's county system.

Figure 1

Student	FARMS	F/P Instructional Level (2nd grade expectation is a level M)	Comprehension Score
A	Yes	K (Fiction)	4/7
B	Yes	G (Non-Fiction)	6/7
C	No	F (Non-fiction)	5/7
D	No	L (Fiction)	6/10
E	Yes	D (Fiction)	6/7
F	No	L (Fiction)	2/10
G	Yes	K (Non-fiction)	4/7
H	Yes	K (Fiction)	6/7
I	Yes	J (Non-Fiction)	5/7
J	Yes	H (Non-Fiction)	4/7
K	Yes	H (Non-Fiction)	5/7
L	No	F (Fiction)	5/7
M	No	I (Non-fiction)	5/7

Instrument

The experiment used the Fountas and Pinell (F&P) Running Record Comprehension Analysis that is used each marking period to track individual student reading growth throughout Anne Arundel County Public Schools. The F&P running record consists of a text that is read aloud by a student and analyzed by the teacher. The parts that are analyzed include reading accuracy, self-correction rate, fluency, and comprehension. Since the purpose of the experiment is to determine the impact on comprehension, the comprehension analysis will be the main focus of the assessment instrument.

Procedure

The parents gave signed permission for the participants to be included in the individualized homework program. Each student received a take-home book bag with books that were selected based on their reading interest survey and current F&P running record data. Also included in the book bags are leveled comprehension questions from the F&P continuum of instruction in both English and Spanish for the parents to use with their children at home. The participants used the same reading logs as the other students in the classroom, however; they were the only students who received individual leveled books and questions. The reading log activity was monitored on a weekly basis and collected from the participants throughout the experiment in order to track amount of time spent on reading or using the selected texts each week. The program continued until the next marking period when the F&P running record assessments were given again. Their performance data on the next running record assessment was compared to their initial data in order to see if there was any correlation between their growth and the individualized homework program.

CHAPTER IV

RESULTS

The purpose of this study was to investigate the impact of assigning leveled books and reading responses as homework on the reading comprehension of low socioeconomic second grade students. The research utilized the Fountas and Pinell (F&P) Running Record Comprehension Analysis for data on reading levels and comprehension. Data were analyzed utilizing the dependent t test. Table 1 displays the dependent t test analysis (sometimes referred to as the paired t test analysis) for reading level and Table 2 displays the dependent t test analysis for comprehension.

Table 1

Dependent t test Analysis for Reading Level

Variable	Number of Observations	Means	Standard Deviations	t test value
Reading Level Post-test	11	10.364	8.150	2.8031*
Reading Level Pre-test	11	9.364	7.364	

* $p < .05$ statistically significant results obtained

Thus, between pre and post, reading levels increased by an average of one level. This gain was sufficient to reach the customary 5% level of statistical significance, despite a small sample of 11 cases.

Table 2

Dependent *t* test Analysis for Reading Comprehension

Variable	Number of Observations	Means	Standard Deviations	<i>t</i> test value
Reading Comprehension Post-test	11	.684	.117	-0.7045*
Reading Comprehension Pre-test	11	.705	.114	

* $p > .05$ no statistically significant results obtained

Thus, between pre and post, reading comprehension declined 0.02 points. The difference was insufficient to reject the null hypothesis of no change in the population mean at the customary 5% level of statistical significance.

CHAPTER V

DISCUSSION

The purpose of this study was to investigate the impact of assigning leveled books and reading responses as homework on the reading comprehension of low socioeconomic second grade students. The null hypothesis for reading level was rejected but the null hypothesis for reading comprehension was retained.

Implications of the Results

According to the results of the study, there was a positive correlation between the individualized homework program and increasing reading levels. In order for a student's reading level to increase, their accuracy and comprehension composite scores must also increase. Therefore; this study shows that the program was manageable and was an effective choice for reading homework.

The comprehension questions and books that were sent home were based on the student's interests and reading levels at the beginning of the program. This made the students feel like the homework program was more about them than just a regular homework assignment. The reading logs made it easy to communicate information between parents and teachers while also allowing the students to take responsibility of their own homework building their intrinsic motivation. Overall, it was a manageable program for the teacher, parents, and the students. Since the homework program showed signs of success it will be considered for use as literacy homework in the future.

Threats to Validity

All studies suffer from threats to validity. These threats are divided into two groups: threats to external validity and threats to internal validity. In terms of external validity, the Fountas and Pinell benchmark assessment was used as a tool for comprehension/reading levels. This is a nationally accredited and research-based program but it is not the only program that is used to identify reading levels and comprehension scores. The population selected for the study was also not randomly selected; therefore selection-treatment interaction is a possible threat to external validity.

In terms of internal validity, the study involved a pre-test that automatically creates a testing threat to the validity of the study. The pre-test was given in October and the post-assessment was given in March that means that the amount of time between the two assessments was not a threat to the validity. The Fountas and Pinell benchmark assessment that was used as the tool of measurement requires the test administrator to assign comprehension scores using a points system but it is still based on their own impression and can be subjective.

The benchmark assessment was developed by different teachers. For example, the classroom teacher may have given the pre-assessment but the reading interventionist gave the post-assessment. Both assessors gave the same form and were given the same training to administer the benchmark assessment; however, it could still be a threat to internal validity. Within the population of students in the study, those who were selected were considered reading below grade level expectations. Some of those who were selected were reading significantly below grade level with few reading strategies and skills and other students were either slightly below level or right on the cusp of the grade level. This means that some students may have had

more developed reading skills than others when starting their participation in the program and it could have accounted for their growth.

Connections to the Literature

According to the theory of self-determination, feelings of competence and relatedness affect intrinsic motivation in students that can hinder their academic performance (Silinskas, Kiuru, Aunola, Lerkkanen & Nurmi, 2015). There were difficulties in this study because of purposeful inclusion of students in the research study who display signs of low intrinsic motivation with their schoolwork and homework. Parents and their involvement or beliefs in homework were also influential to this study. Parents approach to homework has been shown to affect student performance on homework (Silinskas et al., 2015). The participants in the study were a mixture of free and reduced meals (FARMS) and Non-FARMS students. Among these students, there were some parents constantly reviewing the reading logs and some who were not. However, most students from Non-Farms families were more consistent and thorough with completing the homework program over FARMS students. The teacher had to contact home, schedule conferences, or send home extra reading logs and books to students whose parents were not following through with the program as directed.

The homework program was designed to be flexible for working families and for students to complete almost independently. The research suggests that assignments need to be meaningful, motivating, and not lengthy. (Cornelli & Richards, 2010). The teacher checked-in with the students in order to further motivate them which worked well especially when students were given selected books to take home according to their reading interests and levels. When the

students are highly motivated or homework is more meaningful to them, it helps the students to be more successful academically.

As introduced in the review of the literature, the home and school together represent important sources of influence that may overall be responsible for SES differences in academic outcomes (Crowe, McDonald-Connor, & Petscher, 2009). To create a positive school-home connection, a letter was sent home about the program to let parents know and for them to give their consent for information to be collected from their child's reading logs. During the program, the teachers communicated via online classroom messaging applications, email, and even during parent teacher conferences to make sure parents were aware of the homework program and expectations. The teacher also sent home the books in order to make it easier on parents to create a home literacy environment.

Researchers have noted that even when children from these low SES families are put into early intervention programs, they still score lower than average SES peers in reading achievement. (O'Connor et al., 2009). This represents a strong trend between lower SES and low reading scores. The majority of the students in the participation group for the program were FARMS students and they were chosen from the lowest reading scores reported by the benchmark assessment within the classroom. This means that the student population that was selected showed trends that were mentioned within the research. The information provided from these resources suggests that combining motivated students and strong home connection could potentially increase reading scores. The students in the program enjoyed the selected books and teacher check-ins throughout the study and many of the reading levels improved significantly.

Implications for Future Research

Considering the results of the study, the students who struggled with completing homework at home could be given an opportunity to complete their reading logs in the morning or after school. Teachers could even partner with an after-school or morning school care provider in order to make sure the student's reading homework is given attention and support. The research with lower socioeconomic (SES) students and home-literacy environmental impact on reading achievement should continue. Reading programs that can be utilized at home as homework or other reading intervention programs should be considered for elementary students considering technology has been shown to be a major motivational tool for both parents and students.

Conclusion/Summary

The study concludes that the homework reading program did show significant impact on student reading level growth but not on student reading comprehension scores. The home reading program was motivating although there were some students who did not make progress with either their reading level or comprehension scores. This program is easy enough for teachers to implement into their own classrooms if they are attempting to look for a better school-home connection with their literacy instruction as well as for looking to improve home-literacy environments.

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implement in their own classrooms if they are attempting to look for a better school-home connection with their literacy instruction as well as for looking to improve home-literacy environments.

In summary, the results of the study show that there was a positive correlation between the homework reading program and the student reading levels according to the benchmark assessment results but comprehension scores did not have a significant increase. The student population that participated in the reading program consisted of both FARMS and Non-FARMS students. The results from the study are reflected for both populations of the students combined.

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