

RUNNING HEAD: Early Exposure

BENEFITS OF EXPOSURE TO READING PRIOR TO KINDERGARTEN

BY

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ABSTRACT

The following study was completed to determine if there is a significant difference in the success of kindergarten students with exposure to reading for at least thirty minutes a day, at least five days a week, as compared to those kindergarteners with little to no exposure to reading. Assessments are given throughout the year to track students' progress and identify those that are below grade level. It was found that a significant amount of students with little to no exposure to reading prior to kindergarten scored noticeably lower throughout the year than their peers that had been read to on a regular basis. Additionally, it was found that as these children became more exposed and familiar with reading, they made growth, but at a slower rate than their peers.

INTRODUCTION

Background, issues, and concerns.

The following study shows the relationship between being read to at an early age and the reading readiness when entering kindergarten. Many students enter kindergarten having never been exposed to reading. The demands and expectations for a kindergarten student are higher than ever before due to the new Common Core Standards. Children entering kindergarten with little to no exposure to reading are falling behind those children that have been read to and had exposure to reading. There is an increase in the number of young children being raised in single-parent homes, raised by grandparents or older siblings, or in and out of foster homes throughout the early years. In many of these situations, reading has been replaced with hours spent in front of the TV or playing video games. Kids are more likely to be engaged in these activities and require less attention and focus from the adult than reading.

Practice under investigation.

The practice under investigation looked at how children entering kindergarten with at least 30 minutes of exposure to reading daily at an early age have an advantage and are better prepared than those children entering with little to no exposure.

School policy to be informed by study.

The school district where these students attend kindergarten uses an assessment program known as Aimsweb to monitor students' success with grade-level appropriate expectations for reading. Those students that are not reaching the benchmark expectations are progress monitored every two weeks to track their growth. Students are

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assessed three times a year: fall, winter, and spring. The information obtained from this study could be used to help the data to create or adopt a program for parents needing assistance with reading strategies to use at home with their child. Additionally, the preschool facilities that feed into the district could adopt the same program to encourage parents of preschoolers to begin exposing their child to reading before enrolling their child into kindergarten.

Conceptual underpinning.

All children learn at different rates. Early exposure to reading and books, in general, will set them up for early success in the classroom. Knowing how letters make sounds that make words that make thoughts that tell a story is key in understanding not only the fun of reading, but how reading works. Students will achieve at a higher level of understanding when exposed to reading before entering kindergarten.

Statement of the problem.

To find if there is a significant difference in scores between entering kindergarteners that have been exposed versus those who have little to no exposure.

Purpose of study.

The purpose of this study is to determine if reading to children before entering kindergarten plays a role in the child's academic performance in kindergarten. The information obtained from this study will better inform parents of the importance of early exposure to being read to at least thirty minutes of reading on a daily basis, prior to enrolling in kindergarten.

Research questions.

RQ#1: Is there a significant difference in a student's academic performance in kindergarten between children who have been read to at least 30 minutes per day before entering kindergarten compared to children who have not been read to for at least 30 minutes per day before entering kindergarten?

Null hypothesis.

There is not a significant difference in a student's academic performance in kindergarten between children who have been read to at least 30 minutes per day before entering kindergarten compared to children who have not been read to for at least 30 minutes per day before entering kindergarten.

Anticipated benefits of study.

The results of this study will show parents the importance of beginning ready at an early age to increase their child's performance level when entering kindergarten.

Definition of terms.

AimswEB-universal screening, progress monitoring, and data management system that supports Response to Intervention (RTI) and tiered instruction

DRA-known as Developmental Reading Assessment- an individually administered assessment of a child's reading capabilities. It is used by teachers to identify a student's reading level, accuracy, fluency, and comprehension.

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Summary

This research project is designed to compare the data of new readers. Readers will be put categorized into two groups based on their exposure to reading. A survey will be conducted to determine the amount of time, if any, children were read to at home on a daily basis. Research shows that children read to at least 30 minutes a day as young children are more successful readers themselves. Students will be monitored for a given length of time and scores on reading assessments will be compared throughout. Scores will be compared at the beginning of the testing window and the end. A survey will be conducted at the end of testing period to determine if the amount of reading at home daily remained the same, increased, or decreased.

REVIEW OF LITERATURE

Early exposure to reading is crucial in a child's development and understanding of language and how words work together. Children develop much of their capacity for learning in the first three years of their lives. Given the course of brain development, it is not surprising that young children who are exposed to certain experiences usually prove to be good readers later in life (Ackerman, 2012). Just as a child develops language skills long before the ability to speak, the same is true about the development of literacy skills long before being able to actually read.

In America, 43% of children are not school ready when they enter kindergarten. However, children who get early exposure to literacy with positive speaking interactions have a thirty-two million word advantage by age four that those who did not have early exposure (Ackerman, 2012).

Scientists state that a baby's brain will triple in size during the first year of life. Dickinson and Griffith (2013) state that "reading aloud and talking to a young child consistently will feed the child's brain ten million words of new, raw data each year in the first three years of their lives (p.4)." This allows their neural pathways to develop in different ways. Labeling objects and reading around the room, sometimes called multisensory flash-word technique, can start as early as three or four months old. This is during the brain's height of plasticity and synaptic formation. These types of activities flex a child's mental muscles by feeding word traces into the brain, impacting brain growth and cognitive development.

Silverman and Crandell (2010) conducted a study to show the significant

difference in a child's vocabulary knowledge and target word knowledge based on the type of instruction and practice received. While teachers and their type of practices and instruction were observed, important evidence supporting the need for parents to begin exposing children to reading and a wealth of vocabulary was shown. According to Silverman and Crandell, early exposure, and the consistency of the exposure, directly impacts later reading achievements for children. A pretest and posttest were given to those being observed. Silverman and Crandell found that students made improvements based on five practices that teachers utilized. Each of the practices contributed to the growth in each child. The practices observed were acting out and illustrating words, analyzing words semantically, applying words in new contexts, defining words explicitly in rich context, and word study (331-333). Each of these practices could be introduced prior to entering kindergarten by parents.

According to the Educational Testing Service, the single most significant predictor of children's literacy is their mother's literacy level (2012). The more education a mother has, the more likely she is to read to her child. Studies show that 77% of children whose mothers have a college education were read to every day, while only 49% of children whose mothers had a high school education were read to daily. Similarly, children in poor families are less likely to be read to daily. The 1996 National Household Education Survey found that 46% of children in families in poverty were read to every day, compared with 61% of children in families living above the poverty line.

Researchers have found the home literacy environment can be a stronger predictor of academic achievement than a family's income. That home environment includes the literacy level of the parents, the parents' educational achievement, and the availability of

reading materials, among other factors. While the overall economic status of the family has a great impact on whether families read to children, the employment status of the mother does not. The 2013 National Household Education Survey found little difference between mothers who work more than thirty-five hours a week and those who work less than that or are not employed. In families with mothers who worked full time, 54% of children were read to daily (Moore, 2014). When the mother worked part time, or was not employed, 59% of the children were read to daily.

In contrast, big differences are seen between dual-parent and single parent households, according to a recent study by the University of Michigan's Institute for Social Research. Researchers found that parents in what is looked at as a "traditional" family with a working father and a stay-at-home mother spent an average of twenty-two hours a week directly engaged with their children at young ages. That was slightly more than the nineteen hours spent by parents in dual-income families and more than double the nine hours spent by single mothers (Moore, 2014). The National Household Education Survey also found that 61% of preschoolers in two-parent households, as compared to 46% in households with one parent or no parents, were read to daily. Differences were also seen in the National Household Education Survey among racial and ethnic groups. Sixty-four percent of White families reported reading every day to children ages three to five, compared with 44% of African-American families and 39% of Hispanic families.

A study was conducted to find the gap in assessments between minority groups, boys compared to girls, and children in high-poverty families (Chatterji, 2006). It was found that as these students progressed through kindergarten and into first grade, lack of

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prior reading was the main cause of low scores and reader readiness. Typically, students from the groups identified and observed required small group interventions and differentiated instruction.

RESEARCH METHODS

Research design.

A questionnaire was given to parents at the Open House in each of the three kindergarten classrooms. The questionnaire was used to determine how much and how often entering kindergarteners had been exposed to reading in the home. Parents were encouraged to be open and honest with their responses in order to help identify those children that may need additional assistance throughout the year. Surprisingly, parents were very receptive to the idea of tracking their students' progress based on their prior exposure to reading. The independent variable was exposure or lack of exposure to reading prior to entering kindergarten. The dependent variable was the test given to access and monitor students' growth based on district-mandated testing.

Study group description

Students entering kindergarten in three different classrooms from the same school will be given the district-mandated assessments and scores will be evaluated. All students are either five or six years old. As a grade level, 43% of the families qualify for free or reduced lunch. There are eighty-two students, of which 58% are boys. A majority of the students are white/Caucasian (78%), with a small group African-American students (10%), a small group of Hispanic students (7%), and a smaller group of Indian students (5%).

Data collection and instrumentation.

Data from quarterly assessments will be collected to monitor progress throughout the school year. Three times a year, fall, winter, and spring, teachers in the district assess their students to monitor progress throughout the year. Kindergarteners are given a letter-naming assessment. Students are given one minute to identify as many upper and lowercase letters as they can in the given amount of time. Data was recorded on a spreadsheet and color-coded based on grade-level expectations and where each student falls in relation to the current grade-level expectation.

Statistical analysis methods.

A t-test was conducted to find if there is a significant difference in scores based on those students that had been exposed to at least thirty minutes of daily reading at least five days per week prior to kindergarten and those that have had little to no exposure. Scores were taken throughout the year. Results from the beginning of the year and the end of the year were looked at.

FINDINGS

A t-test was conducted to determine whether there was a difference in performance of students with exposure to reading before kindergarten and those with little to no exposure. The following tables, graphs, and charts will depict the organized findings based on data collected throughout seventy-students kindergarten year. Two different assessments were given. The Aimsweb was given three times throughout the year. Scores for the beginning and end of year are shown. The DRA is given in the winter and in the spring. Both results are shown.

Figure 1

t-Test Analysis Results for Aimsweb Scores (Letter Naming) Beginning of Year

Source	Mean	Mean D	t-test	df	p-value
Exposure(48)	33.44				
Little to no exposure(31)	11.48	21.96	7.25E0	78	2.70E-10

Note: Significant when $p \leq 0.25$

The mean of those with exposure to reading was 33.44, and the mean of those with little to no exposure was 11.48. The Mean D, or difference between the two groups,

was 21.96. The t-test result was 7.25E0 and the df was 78. The null hypothesis states that there is not a significant difference in a student's academic performance in kindergarten between children who have been read to at least 30 minutes per day before entering kindergarten compared to children who have not been read to for at least 30 minutes per day before entering kindergarten. This null hypothesis was rejected because the p-value, 2.70E-10, is lower than the alpha level, 0.25. This shows that the amount of exposure to reading prior to entering kindergarten does affect academic performance.

Figure 2

t-Test Analysis Results for Aimsweb Scores (Letter Naming) End of Year

Source	Mean	Mean D	t-test	df	p-value
Exposure	60.85				
Little to no exposure	41.77	19.08	5.61E0	78	2.97E-7

Note: Significant when $p \leq 0.25$

The mean of those with exposure to reading was 60.85, and the mean of those with little to no exposure was 41.77. The Mean D, or difference between the two groups, was 19.08. The t-test result was 5.61E0 and the df was 78. The null hypothesis states that there is not a significant difference in a student's academic performance in kindergarten between children who have been read to at least 30 minutes per day before entering kindergarten compared to children who have not been read to for at least 30 minutes per day before entering kindergarten. This null hypothesis was rejected because

the p-value, 2.97E-7, is lower than the alpha level, 0.25. This shows that the amount of exposure to reading prior to entering kindergarten does affect academic performance.

Figure 3.1

Winter DRA Benchmark Scores

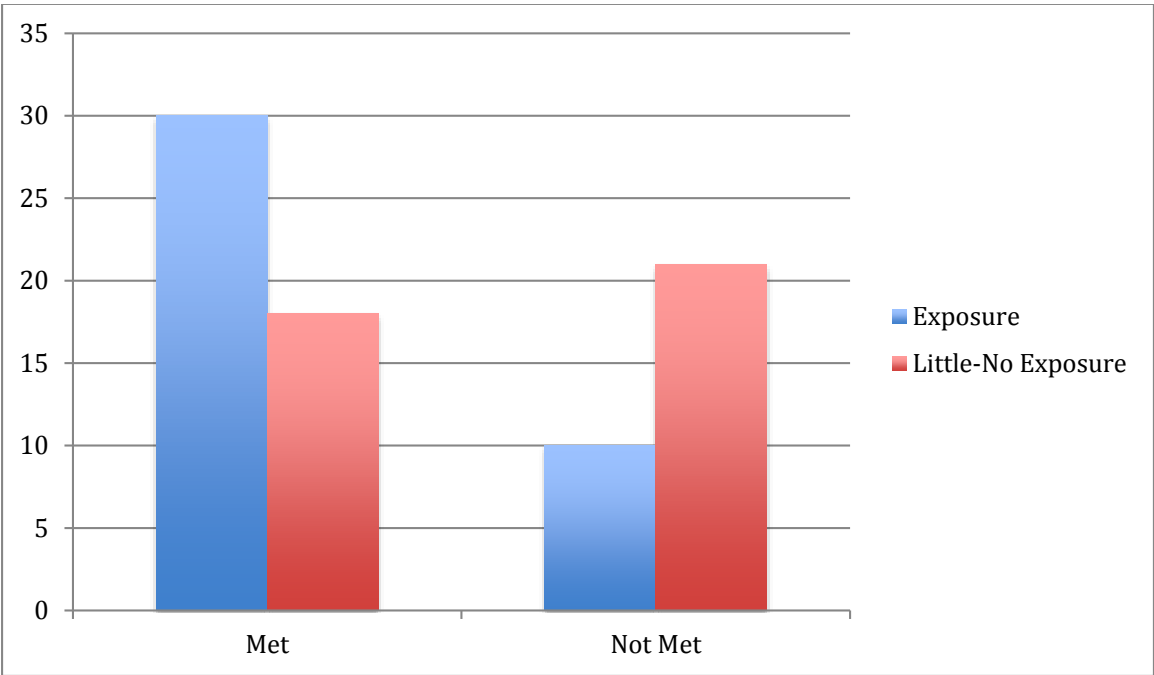
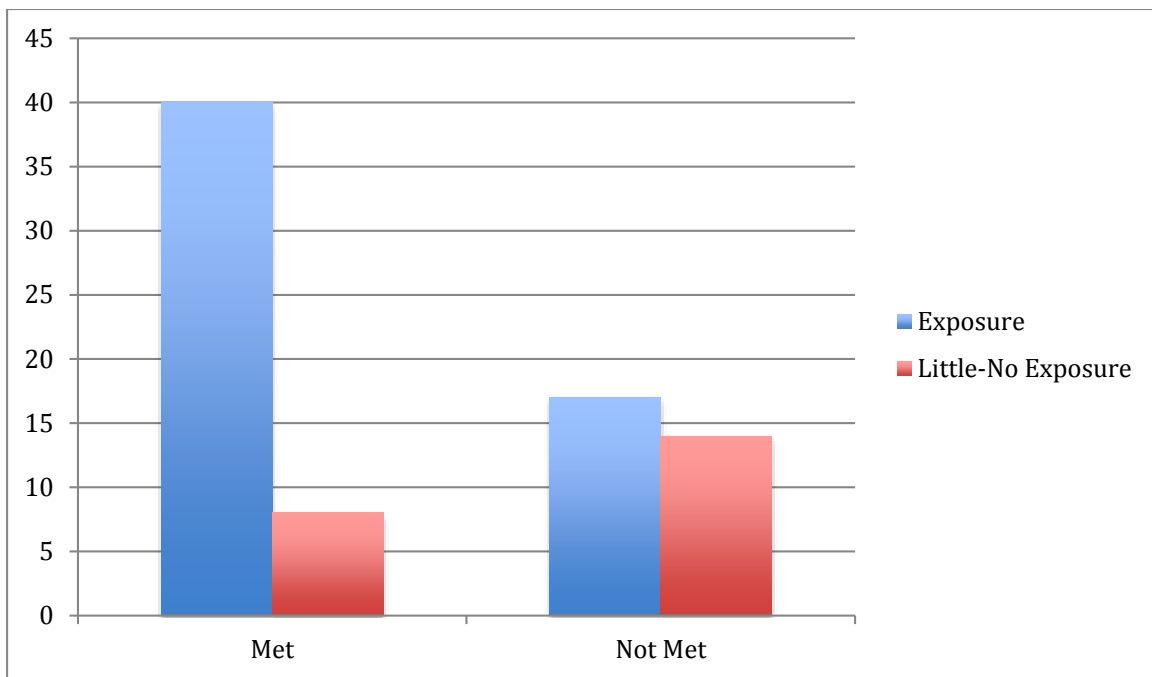


Figure 3.2

Spring DRA Benchmark Scores

As shown in Figure 3.1, those students with prior exposure to reading were more likely to score benchmark (grade-level expectation) on the test given in the winter than those with little to no exposure. 62.5% of those with exposure to reading met the winter benchmark reading goal as set by DRA. Only 37.5% did not. Of those students with little to no exposure to reading, only 32.3% met the winter benchmark reading goal. 67.7% did not meet the goal.

By the spring benchmark assessment, both groups of students made gains. The most impressive was those students with little to no exposure to reading. 54.9% of the

group met the current benchmark goal, up 22.6% from their first assessment. 45.1% of this group still had not met the current goal, but progress was made.

Figure 4

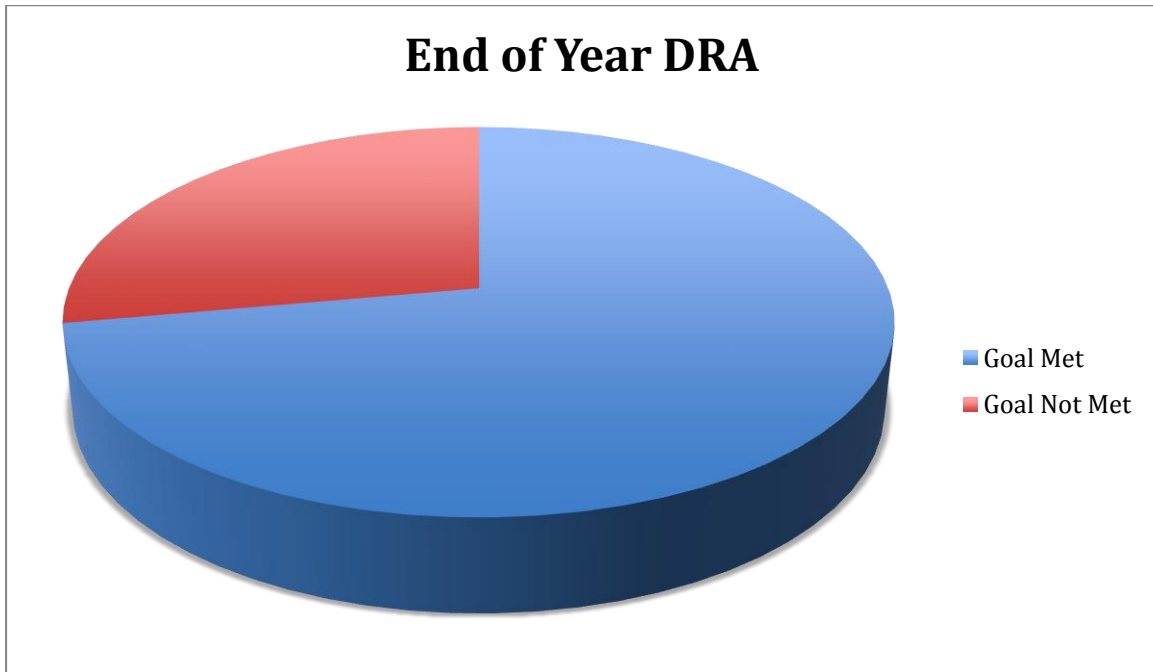


Figure 4 shows the total number of kindergartens, no matter the amount of exposure to reading, that were able to meet the end of year DRA goal as set by the district. 72% of all students met the goal. Of the 27% that did not meet the goal, all made some sign of growth from their middle of year scores.

CONCLUSIONS AND RECOMMENDATIONS

The outcomes shown from the completed study show that those students entering kindergarten with exposure to reading, at least thirty minutes daily at least five days a week, are more likely to meet the grade-level goals throughout the year than those students with little to no exposure. While most students showed gains throughout the year, students showing the most significant gains were those with early exposure. The teachers working with these students spent time in small groups and extra individual tutoring to assist those students that were continuously struggling. While not all students receiving additional help were those that had little to no exposure, significant amount (68%) were.

After concluding this study, there are further studies that could be conducted. Looking deeper into the levels of education for the parents of these students would offer some insight into the abilities of the parent to actually read to their child. As noted in the literature review, parents with little educational background are less likely to feel confident enough to read with their children, due to their lack of understanding.

One other factor that could be looked further into is the work status of parents in the home. A more updated study could provide some insight to how the home literacy environment is changing. Parents that are constantly working outside of the home have to balance and prioritize their time. After working, their priorities may not include finding thirty minutes to read with their child. Providing strategies for these parents to

encourage incorporating literacy into their busy lives would assist them in feeling more confident in their abilities to juggle their daily priorities.

Further research could also be conducted to find ways to truly encourage and assist homes with bilingual parents. Many students from bilingual families test poorly due to the language barrier between their native language and that of the test. While this may be taken into account on assessments, providing resources to these parents and families prior to enrolling in kindergarten is crucial in early exposure to literacy in not only their native language, but the language they are surrounded by as well.

Parents need to understand the impact early exposure to reading has on their child. Whether that impact is positive or negative is truly up to them. Waiting for children to enter school to begin learning plays a major factor in a student's ability to perform adequately on assessments. Organizations such as Parents as Teachers, local libraries, and pediatricians' offices offer great programs to promote early literacy in the home. Parents need to understand the importance of exposing their children to reading and utilize the resources available to them.

Enrolling young children in a preschool program that offers a variety of literacy opportunities can be a great alternative for parents. Even for those parents that read to their child on a regular basis, good, quality preschools can help boost each child's readiness for reading. While the parent is the child's first and most important teacher, providing a child a variety of opportunities to be exposed to reading prior to entering kindergarten will ultimately increase that child's ability to perform on given assessments.

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