

Franklin University

FUSE (Franklin University Scholarly Exchange)

Urbana University Master's Theses

School of Education

2004

Do Springfield City School Students Who Attend Preschool Have Better Reading Achievement in First Grade than Students Who Do Not Attend Preschool

Sondra Coffey
Urbana University

Follow this and additional works at: <https://fuse.franklin.edu/urbana-theses>



Part of the [Education Commons](#)

Recommended Citation

Coffey, Sondra, "Do Springfield City School Students Who Attend Preschool Have Better Reading Achievement in First Grade than Students Who Do Not Attend Preschool" (2004). *Urbana University Master's Theses*. 61.

<https://fuse.franklin.edu/urbana-theses/61>

This Thesis is brought to you for free and open access by the School of Education at FUSE (Franklin University Scholarly Exchange). It has been accepted for inclusion in Urbana University Master's Theses by an authorized administrator of FUSE (Franklin University Scholarly Exchange). For more information, please contact fuse@franklin.edu.

**Do Springfield City School Students Who Attend Preschool Have Better Reading
Achievement In First Grade Than Students Who Do Not Attend Preschool?**

Submitted to the
Faculty of Urbana University

THE:EDU
2004
MS
,C63

In partial fulfillment of
The requirements for the degree of
Master of Education
Division of Graduate Study

By
Sondra Coffey
Urbana University
Urbana, Ohio

2004

Approved 4/8/04

Advisor Karen J. Haas

TABLE OF CONTENTS

| Chapter | Page |
|--|-------------|
| I. INTRODUCTION | |
| Statement of the Problem..... | 1 |
| Significance of the Study..... | 1 |
| Question to be Investigated..... | 2 |
| Definition of Terms..... | 2 |
| Research Procedures and Methodology..... | 2 |
| Assumptions..... | 3 |
| Limitations..... | 3 |
| Delimitations..... | 3 |
| II. RELATED RESEARCH AND LITERATURE..... | 5 |
| III. PROCEDURES FOR THE STUDY | |
| Subjects..... | 13 |
| Instrumentation..... | 13 |
| Procedures..... | 13 |
| IV. ANALYSIS OF THE DATA..... | 15 |
| V. SUMMARY AND CONCLUSIONS | |
| Summary of Findings..... | 20 |
| Conclusions..... | 20 |
| Implications..... | 20 |
| Recommendations and Future Research..... | 21 |
| Appendices..... | 23 |
| Appendix A--Reading Quarterly Test..... | 24 |
| Appendix B--Prekindergarten-Experience Survey..... | 39 |
| Appendix C--Tables of Raw Scores..... | 40 |
| References..... | 42 |

CHAPTER I

Statement of the Problem

More and more reading requirements are being placed on first grade students. As a result, research has been done on the benefits of introducing students to reading experiences at the prekindergarten age.

Because first grade students are expected to take reading achievement tests, many early childhood educators are pushing for quality, accessible preschool services for children nationwide. Recent research has shown that preschool attendance is an indicator of a student's level of reading achievement. The purpose of this study was to determine if Springfield City School students who attended preschool had better reading achievement in first grade than students who did not attend preschool.

Significance of the Study

Promoting young children's readiness to read is a national priority. In fact, one of the first mandates of the National Education Goals is that all American children start school ready to learn. Unfortunately, young children who attend Springfield City Schools are faced with increasingly stressful environments. Many of these children are living in poverty, and are exposed to multiple risk factors such as poor health care, lack of appropriate housing, and community violence.

In response to these conditions, the Springfield City School District supports preschool programs designed to prepare children to succeed in school. These preschool services represent one of the district's more promising ways to set young children on a positive educational track.

In a number of preschools, teachers read stories each day to and with children. Through these books, children learn many of the conventions of written language. This includes left to right and top to bottom directionality, use of picture cues, making logical predictions, and playing with the sounds of language. It would seem that children who receive preschool services should gain reading experiences that would benefit them in acquiring first grade reading skills.

Question to be Investigated

Do students who attend preschool have better reading achievement in first grade than students who do not attend preschool?

Definitions of Terms

1. **Direct Reading Instruction**--Whole group and small group instruction in which students are taught to associate letters to sounds and how to blend words.
2. **Preschool**--Any formal program a child attends for at least one year prior to enrolling in kindergarten.
3. **Quarterly Tests**--Tests developed by the local Springfield City School District. They are given at the end of each grading period in reading, writing, math, science, and social studies.

Research Procedures and Methodology

The methods and procedures for this study were in the form of a causal-comparative study to determine if Springfield City School students who attend preschool have better reading achievement in first grade than students who do not attend preschool. During the 2003-2004 school year, first grade students were given direct reading instruction for 90

minutes per day. This instruction included methods for hearing sounds at the beginning, middle, and end of words, blending sounds together to form words, and segmenting words to hear sounds. Students were also exposed to poetry, songs, literature, and independent writing. In addition, stories were read to children and questions about them were asked to improve comprehension. At the end of the second grading period, a reading quarterly test was given to all first grade students. An independent t-test was conducted using results from the quarterly test to determine if preschool attendance led to different achievement levels among students.

Assumptions, Limitations, and Delimitations

Assumptions of the Study

1. Equal instruction time and effort were given to students who attended preschool and students who did not attend preschool.
2. All students were given as much time as needed to complete the quarterly tests.
3. All students tried to improve their reading skills.

Limitations

1. The study was conducted in only one school.
2. There was only one teacher involved in the study.

Delimitations of the Study

1. The size of the study involved only 30 students.
2. The study was conducted for only two grading periods.
3. Ethnic background was not taken into consideration when placing students into groups.

4. Gender was not taken into consideration when placing students into groups.
5. The ability level of the students was not taken into consideration when placing students into groups.
6. The type of preschool program attended was not considered when placing students into groups.
7. There were no learning disabled students who required special test-taking methods in the study.

CHAPTER II

Related Research and Literature

There are a significant number of children attending preschools. In fact, three-fourths of young children in the United States participate in a preschool program (Barnett and Hustedt, 2003). Preschool is not just a place for parents to drop off their children while they are at work for the day. It is in preschool that children learn both academic and social skills needed in school and in life.

Preschool education originated in the United States in the 1920s. Its development was tied closely to the child study movement. Many of the first nursery schools were located on university campuses and were housed in departments of psychology or in the Children's Research Bureaus. Because of this history, preschool education has always been closely linked to developmental theories (Schickedanz, 1994).

Head Start, a type of preschool, is a federal matching grant program that aims to improve the learning skills, social skills, and health status of poor children so that they can begin schooling on an equal level with their more advantaged peers. The program guidelines require that 90 percent of participants must be from families living below the federal poverty line. Begun in 1964, Head Start has had both great public and bipartisan support. Roughly 28 percent, 622,000 children, of eligible three to five year olds are served at a cost of \$2.2 billion per year, or approximately \$3,500 per child, per year (Currie and Thomas, 1995).

A number of federal programs fund schools to provide preschool services. One of the best known of these programs is the extensive services provided to preschool-age

children with disabilities and their families under the Individuals with Disabilities Education Act. These services are provided by the schools themselves or by other agencies under contractual arrangement with the school districts. School systems themselves may constitute many Head Start grantees and delegate agencies. Some of these Head Start programs are located in school facilities and some work cooperatively with other community agencies to operate programs in nonschool settings but under the guidance of the local school board. Yet other preschool programs in schools are funded through Title 1 of the Elementary and Secondary Education Act. These programs are based in high-poverty schools and serve children who are at a high risk of later failing school (Clifford, Early, and Hills, 1995).

Research shows that preschools are a wise public investment. Arthur Reynolds, a University of Wisconsin-Madison social work professor, and Judy Temple, an economist at Northern Illinois University completed a cost-benefit analysis of the federally funded Chicago Child-Parent Center program, which serves children from low-income families in Chicago's inner city. This Title I program, similar to Head Start, provides comprehensive services and emphasizes literacy skills and parent involvement. The researchers have been studying this program for more than 15 years. They have found that at an average cost of \$6,730 per child for 18 months of participation, the preschool program generated a total return to society at large of \$47,759 per participant. Students who attend preschool are more likely to graduate from high school, less likely to be involved in crime, and less likely to have unwanted pregnancies in their teens (Reynolds, 2001).

Public polls indicate that the number one concern of Americans is education. Many

parents are turning to private preschools to allow their young children to receive prekindergarten educational experiences. The average cost of a private preschool is \$10,000 per year. Despite the price, many private preschools have waiting lists of two to five years. This is happening because demand has increased, but supply has not (Wingert, 2000).

Although preschool education research has largely focused on the benefits of early education for children in poverty, several child care studies indicate that many private preschool programs improve the learning and development of all children. Problems that are often associated with students from low income families, such as grade retention and high dropout rates, are more common among middle class students than is often assumed. For example, more than one in ten children in the middle three quintiles of the United States income distribution are retained, and the same proportion drop out of high school. Private preschool programs help reduce these problems for middle class students by 25 to 50 percent. This saves the taxpayers' money in the long term (Barnett and Hustedt, 2003).

Letter knowledge has been shown to be a strong predictor of reading. Knowing the alphabet and the related sounds is associated with beginning literacy. In fact, letter knowledge measured at the beginning of kindergarten is a predictor of reading achievement at the end of first grade. A child's exposure to letter names and sounds during the preschool years is positively associated with linguistically precocious performance on literacy measures (Gunn, Simmons, and Kameenui 2003).

An Ohio statewide longitudinal study investigated the effects of prior preschool

attendance on elementary children's success in achievement. It involved a retrospective analysis of 8,290 children who entered kindergarten in 27 Ohio districts in 1982, 1983, and 1984. Scores from 13 different standardized tests were analyzed. Kindergarten pupils with preschool experience performed ten percentile points better on every subtest than pupils who had not had such experience (Sheehan, Cryan, Wiechel, and Brandy, 1991). This early success was carried throughout the elementary years. The retrospective data indicated correlations of .65 to .75 between kindergarten/first grade performance in grades 2, 3, and 4. These high correlations were evident across the various testing areas (Sheehan, Cryan, Wiechel, and Brandy, 1991). Therefore, reading skills were higher for students who attended preschool compared to those who did not attend preschool.

Janet Currie and Duncan Thomas investigated the impact of participation in Head Start. A national sample of nearly 5,000 children who had at least one sibling over 3 years old was used. Comparisons were drawn between siblings to control for selection. The Picture Peabody Vocabulary Test was the measuring instrument. Results showed that Head Start was associated with large and significant gains in tests scores. In fact, the gains were nearly seven percentile points (Currie and Thomas, 1995).

Arthur Reynolds investigated whether it was better for students to attend preschool for two years or one year. Seven hundred fifty-seven low income Black children in the inner city enrolled in one or two years of a Head Start-type program at age three or four. One hundred thirty Black children from similar neighborhoods entered the centers in kindergarten and served as a no-preschool comparison group. Reading comprehension subset scores on the Iowa Test of Basic Skills were used as measures of cognitive

achievement in grades one to six. The overall effect size for these grades was .15 standard deviations and values consistently favored the 2-year group. Students who participated in Head Start for one year showed an average improvement of four months in reading achievement (Reynolds, 1995). The study found that no significant or educationally meaningful effect of two years of preschool versus one year of preschool were detected in grades one to six. However, children who attended preschool either one year or two years outperformed students who had not attended preschool for reading achievement.

Research was conducted on students who attended a Montessori private preschool in New Brunswick, New Jersey. The study included 22 middle class children who received one hour of daily exposure to books, magazines, and newspapers while attending the private preschool. The control group was 22 children who had not attended preschool. At the end of first grade all 44 students were given the Reading Cluster of the Woodcock-Johnson Psycho-Educational Battery. The mean score of students who had attended the Montessori preschool was 502.1 with a standard deviation of 7.2. The mean score of students who had not attended preschool was 479.7 with a standard deviation of 7.8 (Scarborough, Dobrich, and Hager, 1991). This study showed that students who were exposed daily to literature materials in preschool were better readers in first grade than students who did not receive this exposure.

The Western Institute for Science and Technology designed a preschool program that focused on reading readiness. It then conducted a study of 124 students. This included 62 first grade students who had attended preschool and 62 first grade students who had not attended preschool. The students who attended preschool spent two hours per day on

activities and games to develop reading readiness skills. Upon entering first grade, the students were given the Metropolitan Readiness Test, which measures cognitive development in the skill areas of word meaning, listening, matching, and alphabet recognition. The mean score of first grade students who had attended preschool was 52.56 with a standard deviation of 6.82. The mean score of first grade students who had not attended preschool was 42.26 with a standard deviation of 5.49 (Vincent, Bright, and Dickason, 2001). This research showed that first grade students who had reading experiences in preschool showed significantly better reading readiness skills than the first grade students who had not attended preschool.

Another study focused on the reading attainments of first grade students who attended preschool versus the reading attainments of first grade students who had not attended preschool. The sample consisted of 834 students. First grade teachers administered the Primary Reading Test to their students. This test was chosen because it assessed the ability to apply reading skills for the understanding of words and simple sentences. The mean of the raw reading scores for first grade students who had attended preschool was 23.3 with a standard deviation of 7.1. The mean of the raw reading scores for first grade students who had not attended preschool was 19.8 with a standard deviation of 5.12 (Davies and Brember, 1997). This finding supports the view that students who have preschool experience begin school with an advantage.

Not all researchers believe preschool has a significant effect on elementary children's learning. Peter Kutnick explored the effect of preschool experiences on performance and classroom behaviors throughout the years of primary schooling in Trinidad. Information

was gathered from 450 children from three schools in an urban area outside the city of Trinidad. The measuring instrument was the Common Entrance Examination. There were no significant differences on Common Entrance Examinations between preschooled and non-preschooled groups. On a maximum score of 800, the preschool group averaged 572 and the non-preschool group averaged 563 (Kutnick, 1994). There were no significant differences on Common Entrance Examination scores within the preschooled group in relation to the length of time they attended preschool or type of preschool attended. Mr. Kutnick questioned whether the cost of preschools outweigh the benefits received from them. He feels that there is no evidence that preschool experience closes the gap between middle and working class children when a normal range of population is sampled for preschool effects.

Although most researchers believe the benefits of preschool are more evident among children from poor, minority backgrounds, those are not the groups most likely to attend preschool programs. About 40 percent of white children, 31 percent of African-American children, and 21 percent of Hispanic 3 to 4 year olds enroll in preschools. In addition, children who come from homes with income in the highest quartile are more than twice as likely to attend preschool as children whose families are in the lowest quartile (52 percent versus 22 percent). However, African-American children are more likely to be enrolled in a program when income and similar factors are controlled. On the other hand, children of mothers with more or less education appear consistently across income categories (Entwisle, 1995). These findings suggest that extra efforts must be made to draw children of teenage mothers and less educated parents into preschool programs. Much research

indicates enrollment in preschool will increase their success in school.

In summary, many of American students attend preschool. Although there is some controversy, most research shows that the benefits received from preschool students outweigh the cost per pupil. Children who attend preschool tend to be more successful both socially and academically. One especially important benefit of preschool attendance is the improvement in reading achievement for first grade students.

The benefits of attending preschool also last into adulthood. Higher graduation rates, less involvement in crime, and fewer unwanted pregnancies give preschool attendees a greater chance of positively contributing to society. Therefore, the benefits of attending preschool can last a lifetime.

This study on preschool attendance and its effect on reading achievement was intended to contribute to the current research being done in this area. It was designed to show whether students who attend preschool perform better in reading achievement in first grade than students who do not attend preschool. This data can then be used to support or disprove theories on the benefits of preschool attendance.

CHAPTER III

Subjects

The subjects in this study were 30 first grade students, 15 girls and 15 boys, ages six and seven, at Fulton Elementary School in the Springfield (OH) City School District. The children were chosen at random. Springfield City is an urban district. The school is comprised of students from low socioeconomic families. Currently 87 percent of the students who attend Fulton Elementary School receive free or reduced lunches.

Instrumentation

Students were assessed on their reading achievement skills. A quarterly test developed by the Springfield City School district was given to students at the end of the second quarter of school. The test measured the children's ability to decode words and recognize sight words. Students also answered comprehension questions. It asked 12 multiple choice questions, two short answer questions, and one extended answer question. (See Appendix A). Students could score a total of from 0 to 20 points on the test.

Procedures

As a part of the state of Ohio requirements, all parents/guardians were asked to complete a prekindergarten-experience survey at the beginning of the year. (See Appendix B.) This form was used to discover which students had attended preschool. Students were then divided into two groups. Group A consisted of students who had attended preschool prior to entering kindergarten. Group B consisted of students who had not attended preschool prior to entering kindergarten. There were a total of 24 students in Group A and a total of 20 students in Group B.

A random sampling of both groups was completed. The students in each group were placed in alphabetical order according to their last name. They were then assigned a consecutive number starting with 00. Using a random number table (Gay and Airasian, 2003), an arbitrary number was selected. Fifteen students were selected for Group A to participate in the study. Fifteen students were also selected for Group B to participate in the study.

The reading quarterly assessment was administered by the homeroom teacher. It was given at one time to the whole class. Most students completed the test within 30-40 minutes. However, they were allowed to work on the assessment until they were finished. The students read all selections, test questions, and answer choices by themselves. Teachers were permitted to clarify directions, if necessary, to any student asking for such help. After students completed the tests they were collected. The teacher then assigned each test a score of 0 to 20. The results from the test was analyzed using an independent t-test.

Chapter IV

Report and Analysis of Data

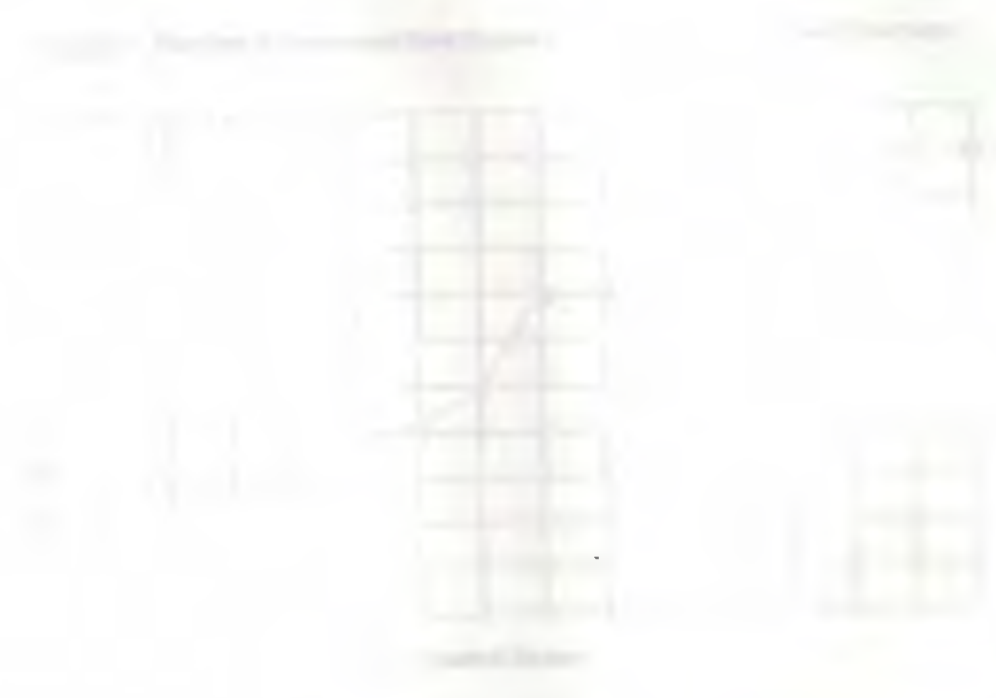
First grade students at Fulton Elementary in Springfield were given direct reading instruction for 90 minutes per day throughout this study. During this time they were exposed to a variety of reading experiences. At the end of the second grading period, a reading quarterly test was given to all first grade students. An independent t-test was conducted using results from the reading quarterly test to determine if preschool attendance led to different reading achievement levels. (See Appendix C).

Graph 1 shows the range of scores the students who attended preschool received on the reading quarterly test. A score of 20 was possible. Scores ranged from 10 to 20. Each dot on the graph represents an individual student's score (See Graph 1). The mean for students who attended preschool was 16.067.

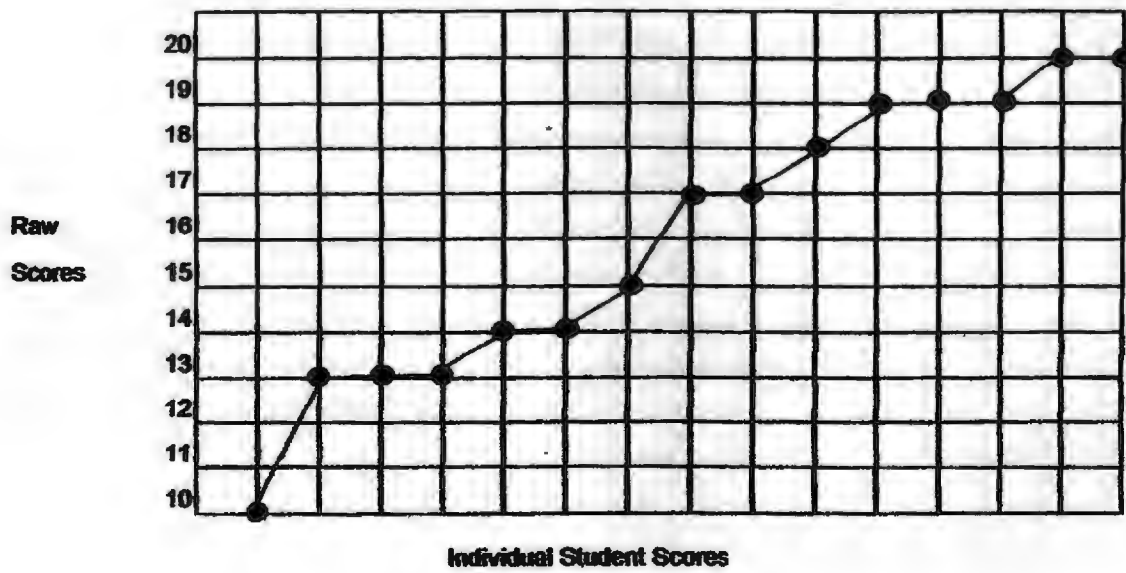
Graph 2 shows the range of scores the students who did not attend preschool received on the reading quarterly test. A score of 20 was possible. Scores ranged from 10 to 19. Each dot on the graph represents an individual student's score. (See Graph 2). The mean for students who did not attend preschool was 13.667.

The alpha level of probability was assigned at .05. This means that there was a 5 percent chance that the findings could occur because of error. There was a 95 percent confidence level that findings could not occur because of error. The independent t-test result was 2.26. This is greater than the .05 alpha level of 2.048. Thus, there was a significant difference between the reading achievement of students who attended preschool and those who did not attend preschool. This represents a significant statistical

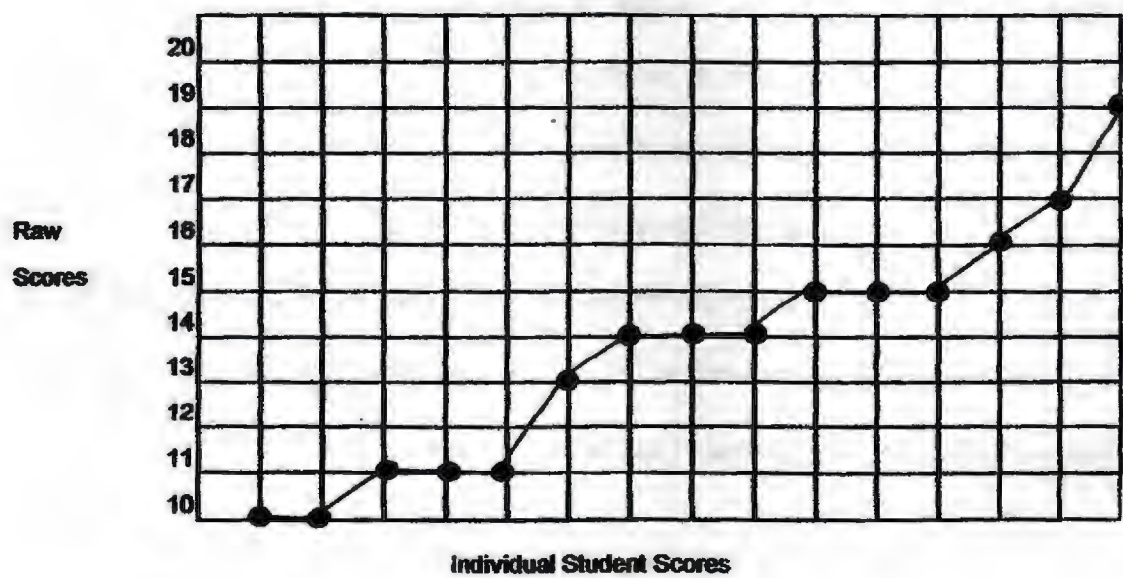
finding and suggests that this relationship would exist 95 times out of 100. This study indicates that first grade students who attend preschool have better reading achievement than first grade students who do not attend preschool.



Graph 1: Reading Achievement Raw Scores of Students Who Attended Preschool



Graph 2: Reading Achievement Raw Scores of Students Who Did Not Attend Preschool



General Observations

One observation worth noting was that most students who finished the reading quarterly test the fastest also obtained the lowest scores. This included both students who had attended preschool and those who had not attended preschool. This may have been because there were words in the stories and questions that these children could not recognize or decode. Therefore, they may have guessed at the answers and moved on.

Another observation was that nine out of the 15 students who attended preschool scored all four points on the extended response question. However, only five out of the 15 students who had not attended preschool scored all four points on the extended response question. This would seem to indicate that more students who attended preschool looked back in the story to find the correct answers. They may have learned this skill faster than students who did not attend preschool because of their exposure to more reading experiences.

Chapter V

Summary of Findings

Because of increased reading demands on their students, first grade teachers are constantly looking for ways to increase reading achievement. Unfortunately these increased demands come at a time when students are entering school seemingly less and less prepared. By comparing the scores on the reading achievement test of students who attended preschool and those who did not attend preschool, it can be noted that preschool attendance had a positive impact on student reading skills in this study.

Conclusions

Based on the results of this study, it can be concluded that first grade students at Fulton elementary who attend preschool have better reading achievement in first grade than students who do not attend preschool. Therefore, first grade students who attend preschool have a reading advantage over those who do not attend preschool. These positive results often carry over into adulthood. Students who attend preschool have higher graduation rates, lower rate of involvement in crime, and less unwanted pregnancies.

Implications

All first grade classroom teachers need to be aware of the reading experiences their students come to them with. For example, Springfield City first grade students who have attended preschool may have more reading skills than those who have not attended preschool. These students may be able to understand concepts like letter-sound associations and sound blending earlier in the school year than students who did not attend

preschool. Therefore, students who attend preschool may be able to work on more advanced reading skills.

This study and related research clearly show that investment in preschool programs pays off. Because of this, all young children regardless of their race, gender, or economic background should be provided the opportunity to attend preschool. The benefits in reading achievement obtained by students who attend preschool translate into public savings.

Recommendations and Future Research

Parents and guardians should be informed of the impact of preschool attendance on reading achievement. This information could be passed on through parental magazines and child physicians. Schools, because they greatly benefit from working with students who attend preschool, should take the lead in informing parents and guardians. This can be done through flyers and parent meetings. Parents and guardians should be encouraged to enroll their child in at least one year of either a public or private preschool.

A large-scale study would be useful to determine if preschool attendance would be more beneficial for boys or girls. Because of the developmental differences, one gender might benefit from preschool more than another gender. If this was found to be true, public money could be invested accordingly.

Another study could be conducted on the benefits of preschool for minority children. Research could be conducted to find if minority children who attend preschool are better prepared for kindergarten than minority students who do not attend preschool. Again this would help to show where monies should be spent.

Children deserve every opportunity to become successful readers. Students who are exposed to reading experiences in preschool are better readers in first grade. Using current knowledge, preschool attendance appears to be a solid step toward helping each child reach his or her full potential in reading achievement.

APPENDICES

APPENDIX A

NAME: _____

TEACHER: _____

GRADE: 1 READING

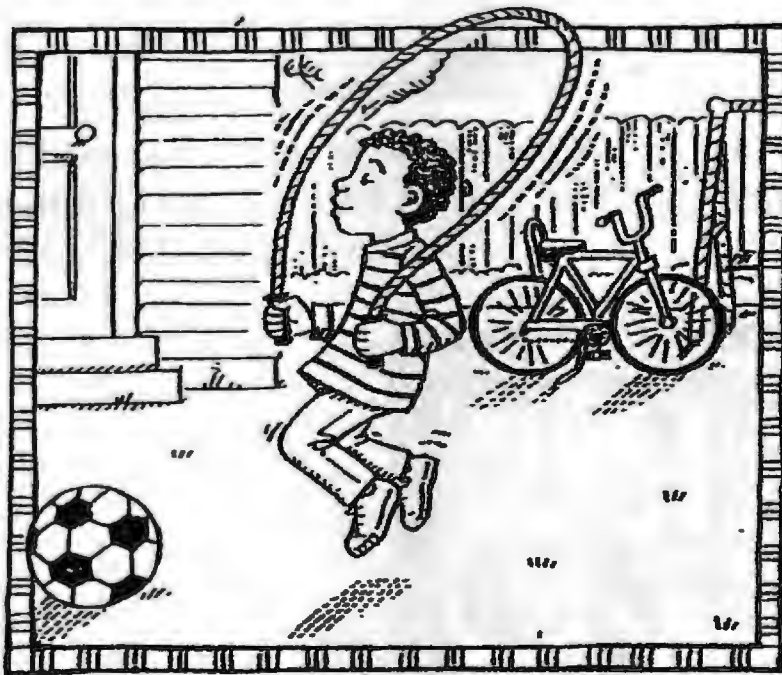
Directions: Read the story on your own. Answer the questions.



APPENDIX A

Over the Gate

Moving is hard! When Mark moved, he missed his old home very much. Every day, Mark played outside. He jumped rope. He rode his bike. He picked up stones. Mark had fun, but he was alone.

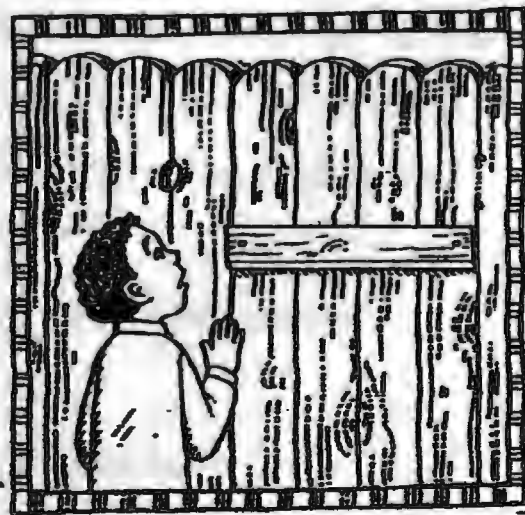


Mark played with his mom and dad. They played ball and got ice cream cones. Mark did not meet any friends.

APPENDIX A

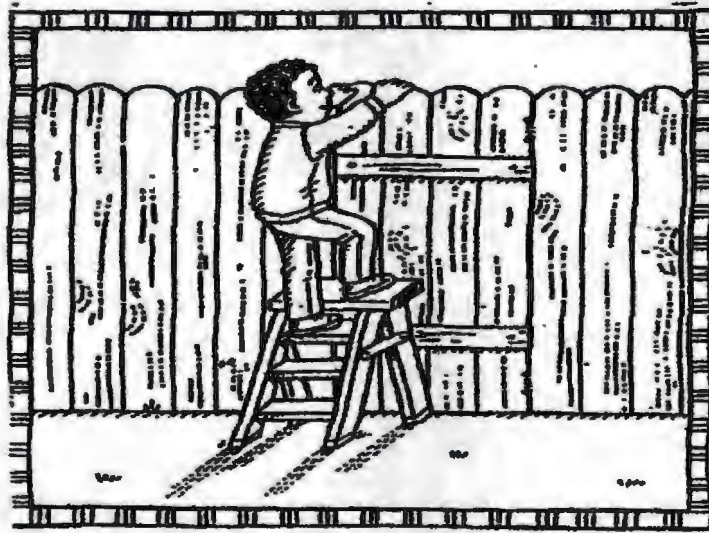


Then one day, Mark heard something. It was something he had not heard in a long time. HE HEARD CHILDREN PLAYING!



Mark looked into a hole in the fence. He couldn't see anyone and he couldn't open the gate.

APPENDIX A



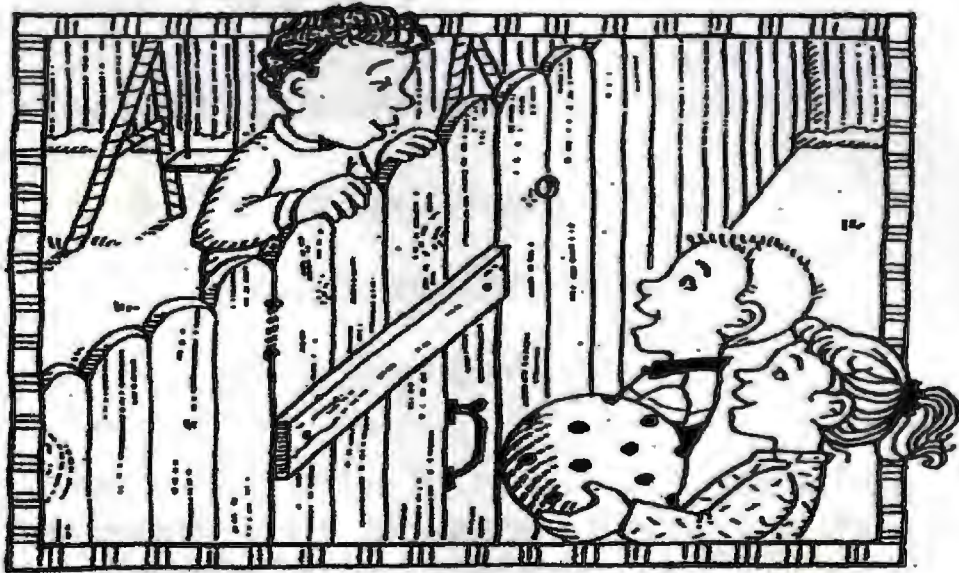
"How can I find out who is over there?" he said. "I know," said Mark. "I will climb up on this and then I can look over."

Mark began to climb. When he got to the top, he peeked over the gate.

"Hello. My name is Mark. I just moved here," said Mark.

A girl said, "We just moved here, too. My name is Pam and this is Don."

APPENDIX A



Now Mark plays with Pam and Don every day. They jump rope. They tell jokes and laugh. Mark loves his new home now!

APPENDIX A

Directions: Circle the best answer.

1. How did Mark's mom and dad help him?

- A. They jumped rope with him.
 - B. They did not talk to him.
 - C. They played ball with him.
-

2. In the story, it said, "When he got to the top, he peeked over the gate." What does the word *peeked* mean in the story?

- A. looked
 - B. climbed
 - C. jumped
-

3. "HE HEARD CHILDREN PLAYING!" was in big letters (upper case) in the story. Why?

- A. This means Mark was very sad.
- B. This means Mark was very happy.
- C. This means Mark was going to take a nap.

APPENDIX A

4. What is the problem in the story?

- A. A boy cannot find his dog.
 - B. Pam and Don are sick.
 - C. A boy has no friends to play with him.
-

5. What happens in the middle of the story?

- A. Mark moves.
 - B. Mark plays with Pam and Don.
 - C. Mark looks into the hole in the fence.
-

6. What will Mark want to do tomorrow?

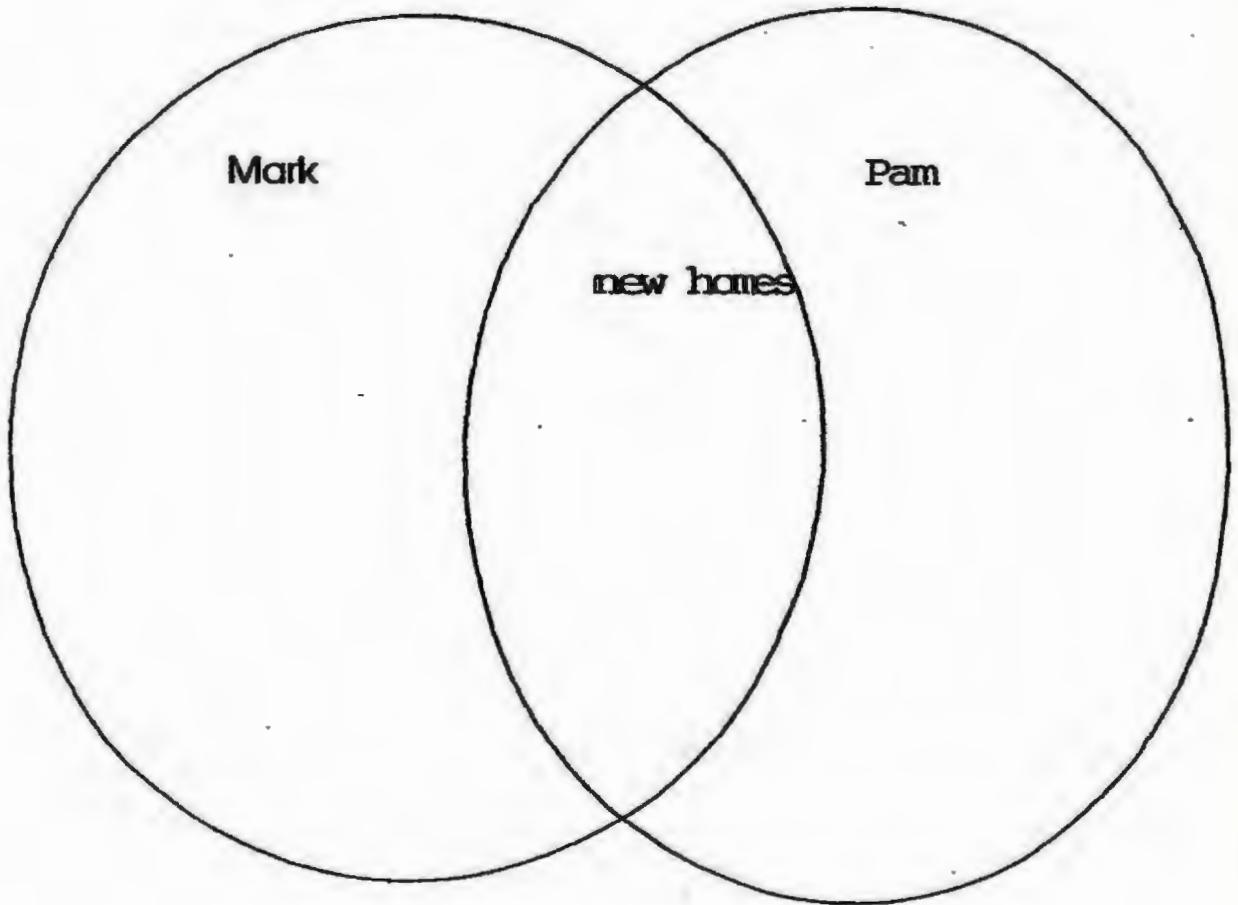
- A. Move back to his old house.
- B. Play with Pam and Don again.
- C. Play by himself.

APPENDIX A

Short Response – 2 Points

Write one in each circle below.

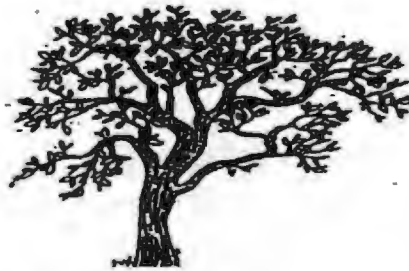
had a brother
walked the dog
played with Mom and Dad
went for a swim



APPENDIX A

The Four Seasons

A season is a time of year. There are four seasons called *spring, summer, fall, and winter.*



Spring

In *spring*, there are more hours of daylight. The air gets warmer. Spring has lots of rain. For farmers, spring is a good time to plant seeds. Light, warm air, and rain help plants start *growing*. *Many animals have babies in the spring.* Birds build nests and lay eggs. Trees bud and get new leaves.

APPENDIX A



Summer

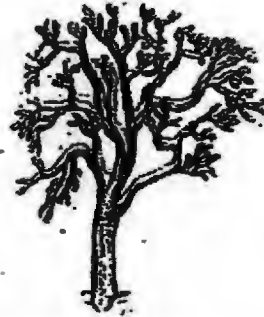
The next season is summer. Summer has the most hours of daylight. The air gets hot. Soon plants get big and grass grows tall. In summer, baby animals grow big and strong.



Fall

Fall comes after summer. In the fall, there are less hours of daylight. The air grows cool. Leaves change color and fall off the trees. Plants stop growing. Farmers pick the apples and corn. Animals store food and birds fly to warmer places.

APPENDIX A



Winter

The last season is winter. Winter has less daylight than any other season. The air gets cold and snow falls. Trees have no leaves. Animals cannot find much food, so they eat the food they stored in the fall. Some animals sleep all winter.

Directions: Circle the best answer.

7. The season that has the most daylight is
- A. winter.
 - B. summer.
 - C. fall.

APPENDIX A

8. in the fall, leaves

- A. turn green.
 - B. bud.
 - C. change color.
-

9. If you want to read another book about summer, which book would you choose?

- A. How to Make a Snowman
 - B. The Hottest Time of Year
 - C. The Apple-Picking Season
-

10. What would you most likely do in winter?

- A. Swim in an outside pool.
- B. Rake leaves.
- C. Take a sled ride.

APPENDIX A

11. What is the story mostly about?

- A. *how the seasons change in the year*
 - B. how to play in the snow and rain
 - C. how to grow apples
-

12. In this story, the word *season* means

- A. a time of the year.
- B. a big lake.
- C. salt and pepper.

APPENDIX A

Extended Response – 4 Points

The air feels different in each season. Tell how the air feels next to each box.

spring

summer

fall

winter

APPENDIX B

Prekindergarten-Experience Survey

Child's Name _____ DOB _____
 School _____ Student Number _____

The purpose of this survey is to find out which of the following types of organized experiences (listed below) children have had as they enter kindergarten, and to learn how long they lasted each year. IN EACH question below, for each age, next to each experience that applies, circle the estimated number of months that it lasted. If none of the experiences apply, or if you do not remember, place a check in the appropriate blank.

AGE 3

When your child was 3 years old (36-47 months old), how many months did he or she participate in the following organized experiences? Select all that apply by circling the appropriate number of months.

| | # months (1-12) |
|--|----------------------------|
| Child care center | 1 2 3 4 5 6 7 8 9 10 11 12 |
| Head Start program | 1 2 3 4 5 6 7 8 9 10 11 12 |
| Preschool program in a public school | 1 2 3 4 5 6 7 8 9 10 11 12 |
| Preschool program NOT in a public school | 1 2 3 4 5 6 7 8 9 10 11 12 |
| Special Education services provided by a school district (or MRDD) (IEP) | 1 2 3 4 5 6 7 8 9 10 11 12 |
| _____ None of the above applies to my child. | |
| _____ I do not remember/ I do not know. | |

AGE 4

When your child was 4 years old (48-59 months old), how many months did he or she participate in the following organized experiences? Select all that apply by circling the appropriate number of months.

| | # months (1-12) |
|--|----------------------------|
| Child care center | 1 2 3 4 5 6 7 8 9 10 11 12 |
| Head Start program | 1 2 3 4 5 6 7 8 9 10 11 12 |
| Preschool program in a public school | 1 2 3 4 5 6 7 8 9 10 11 12 |
| Preschool program NOT in a public school | 1 2 3 4 5 6 7 8 9 10 11 12 |
| Special Education services provided by a school district (or MRDD) (IEP) | 1 2 3 4 5 6 7 8 9 10 11 12 |
| _____ None of the above applies to my child. | |
| _____ I do not remember/ I do not know. | |

AGE 5

When your child was 5 years old (60-72 months), how many months did he or she participate in the following organized experiences? Fill in all that apply.

| | # months (1-12) |
|---|----------------------------|
| Child care center | 1 2 3 4 5 6 7 8 9 10 11 12 |
| Head Start program | 1 2 3 4 5 6 7 8 9 10 11 12 |
| Preschool program in a public school | 1 2 3 4 5 6 7 8 9 10 11 12 |
| Preschool program NOT in a public school | 1 2 3 4 5 6 7 8 9 10 11 12 |
| Special Education services provided by a school district (or MRDD) (IEP) | 1 2 3 4 5 6 7 8 9 10 11 12 |
| _____ None of the above applies to my child. | |
| _____ I do not remember/ I do not know. | |
| I choose not to respond | |

Parent/Guardian Signature _____

APPENDIX C

Table 1

Reading Quarterly test results of Fulton Elementary first grade students who attended preschool.

| <u>Student Number</u> | <u>Raw Score</u> |
|-----------------------|------------------|
| Student 1 | 20 |
| Student 2 | 10 |
| Student 3 | 17 |
| Student 4 | 15 |
| Student 5 | 20 |
| Student 6 | 19 |
| Student 7 | 13 |
| Student 8 | 19 |
| Student 9 | 14 |
| Student 10 | 14 |
| Student 11 | 13 |
| Student 12 | 13 |
| Student 13 | 17 |
| Student 14 | 18 |
| Student 15 | 19 |

APPENDIX C

Table 2
Reading Quarterly test results of Fulton Elementary first
grade students who did not attend preschool.

| <u>Student Number</u> | <u>Raw Score</u> |
|-----------------------|------------------|
| Student 1 | 14 |
| Student 2 | 11 |
| Student 3 | 10 |
| Student 4 | 14 |
| Student 5 | 10 |
| Student 6 | 17 |
| Student 7 | 11 |
| Student 8 | 19 |
| Student 9 | 11 |
| Student 10 | 13 |
| Student 11 | 14 |
| Student 12 | 15 |
| Student 13 | 15 |
| Student 14 | 16 |
| Student 15 | 15 |

REFERENCES

- Barnett, S., & Hustedt, J., (2003). Preschool: The most important grade. *Educational Leadership*, 60(7), 1-4. Retrieved October 20, 2003, from http://www.asck.org/publications/ed_lead/200304/barnett.html
- Clifford, R., Early, D., Hills, T. (1999). Almost a million children in school before kindergarten: Who is responsible for early childhood services? *Young Children*, 48-51.
- Currie, J., & Thomas, D. (1995). Does head start make a difference? *The American Economic Review*, 85(3), 341-364.
- Davies, J., & Brember, I. (1997). The effects of preschool experience on reading attainment. *Educational Psychology*, 17(3), 14-26.
- Gay, L., & Airasian., (2003). *Educational Research: Competencies for Analysis and Applications* (7th ed.). New Jersey: Pearson Education, Inc.
- Gunn, B., Simmons, D., Kameenui, E., (2003). Emergent Literacy: Synthesis of the Research. Retrieved January 31, 2004, <http://idea.uoregon.edu/~ncite/documents/techrep/tech19.html>.
- Kutnick, P., (1994). Does preschool curriculum make a difference in primary school performance: Insights into the variety of preschool activities and their effects on school achievement and behavior in the Caribbean Island of Trinidad: Cross sectional and longitudinal evidence. *Early Child Development and Care*, 103, 27-42.
- Reynolds, A., (1995). One year of preschool intervention or two: Does it matter? *Early Childhood Research Quarterly*, 10, 1-31.

- Reynolds, A., (2001). Study shows economic benefits of early intervention. Retrieved September 26, 2003, from <http://www.newswisc.edu/releases/print.msql?id=6290>
- Scarborough, H., Dobrich, D., & Hager, M., (1991). Preschool literacy experience and later reading achievement. *Journal of Learning Disabilities, 24(8), 508-511.*
- Schickedanz, J., (1994). The origins of preschool and kindergarten education in the United States. *Journal of Education, 176(1), 29-42.*
- Sheehan, R., Cryan, J., Wiechel, J., & Bandy, I., (1991). Factors contributing to success in elementary schools: Research finding for early childhood educators. *Journal of research in Childhood Education, 6(1), 66-75.*
- Vincent, J., Bright, R., Dickason, J., (2001). Effects of WIST reading readiness program on first grade readiness. *The Journal of Educational Research, 250-252.*
- Wingert, P., (2000). Plight of the preschoolers. *Newsweek, 135(20), 76.*