ED 410 531   CS 012 891

AUTHOR   Wynstra, Jennifer E.
TITLE   The Relationship between Five Aspects of the Home
                Environment and Students Reading above Grade Level.
PUB DATE   1995-00-00
NOTE   107p.; M.A. Thesis, Cumberland College.
PUB TYPE   Dissertations/Theses - Masters Theses (042)
EDRS PRICE   MF01/PC05 Plus Postage.
DESCRIPTORS   Caregiver Child Relationship; Elementary Education; *Family
                Environment; Homework; *Parent Child Relationship; *Reading
                Achievement; Reading Research; Recreational Reading;
                *Television Viewing
IDENTIFIERS   Stanford Achievement Tests; Wisconsin (Kenosha)

ABSTRACT
            A study investigated five aspects of the home environment
(time spent viewing television, time spent doing homework, time involved in
recreational reading, time spent with a non-parental caregiver, and bedtime)
of first- through fifth-grade students to see if any common experience
existed among those students reading above grade level. Subjects were 34
students attending the Christian Life Elementary School in Kenosha,
Wisconsin. Parents completed logs for 5 school days recording time spent in
the various activities. Students' scores on the Stanford Achievement Test
were gathered. Results indicated: (1) no negative effects on the reading
achievement of these students for the very limited amount of involvement they
had with television activities; (2) no relationships between time spent
involved in television activities and homework, leisure reading, after school
care situations, or bedtime; (3) negative correlations between reading
achievement and time doing homework; (4) the one positive correlation was
between reading comprehension scores and time spent studying for the
third-grade group; (5) students did not engage in much leisure reading, but
there were positive relationships between leisure reading and reading
achievement for second and fourth graders; (6) the limited time spent with
non-parental caregivers showed a positive correlation with reading
achievement scores; and (7) only the second-grade group showed a positive
correlation between bedtime and reading achievement. (Contains 22 references,
52 notes, and 30 tables of data. Appendixes contain permission letters, a
sample log, and directions for completing the log.) (RS)

THE RELATIONSHIP BETWEEN FIVE ASPECTS OF THE HOME ENVIRONMENT

AND STUDENTS READING ABOVE GRADE LEVEL

Jennifer E. Wynstra

Cumberland College

1995

Robert Schoonover

_____
Director of Thesis

James B. Key, D.A.

_____
Thesis Committee Member

_____
Thesis Committee Member

ACKNOWLEDGEMENTS

I would like to thank God for the opportunity and ability He has given me to continue the pursuit of knowledge. May He add His wisdom to it. I would also like to thank the following people for their support, assistance and encouragement in completing this study:

To Dr. Robert Schoonover, who never seemed to doubt that where ever I was, whatever the delay, I could and would complete my thesis. From research class through chapter five, he taught me what a thesis is. His guidance was invaluable.

To Dr. James Key, for his generosity with his statistical texts, software and expertise. His assistance with the statistical analysis of the data and results was indispensable.

To Dr. Gary Pate, for his time, editing skills and encouragement. His commitment to see this project through to the end was greatly appreciated.

To Paul Blount, Administrator, for allowing me to pursue my research at Christian Life School. And to the teaching staff who gave up precious minutes of their teaching time to the logistics of hand-outs, collections and announcements for the study.

To Sonja Kurland, Principal, for her faithful personal attention to the promotion and participation in this study. And to the parents who participated, without whom, this research would not have been possible.

To Dr. Murali Krishna and my brother-in-law, Jim Wynstra, for their patient and willing attempts to explain, yet another, abstract, statistical concept.

To Barb, who, amongst all my friends and family following the progress of this thesis, was the most persistent.

To my husband, John, who helped in every way, but most importantly, by spending an abundance of quality time with our wonderful son, David. Thank you.

4

TABLE OF CONTENTS

5

7

LIST OF TABLES

8

ix

x

CHAPTER ONE

INTRODUCTION

Reading is one of the most fundamental and essential skills for functioning in society today. Consequently there has been much testing and research on the process of reading and the acquisition of reading skills. Educators and parents alike have a vested interest in the progress toward literacy made by those children in their care. Educators want to use curriculum and methods that promote reading achievement and the love of reading. To this purpose, numerous studies have examined relationships between reading achievement and various methods of reading instruction. However, a parent, unless they are a member of the school board, may have very little influence over the type of reading instruction a school or teacher uses.

At the same time, students receiving similar reading instruction do not all achieve the same reading ability. Children do not come to school as a tabula rasa. "Readiness for school may be affected by the wide range of experiences that children bring with them to the classroom. These experiences may also have affected the achievement levels of children already in school."[1] This has motivated researchers to examine some of the many uncontrolled variables that influence children outside the

---

[1] Jerry West, Elvie G. Hausken, Kathryn Chandler, and Mary Collins, Home Activities of 3- to 8-Year-Olds, Statistics in Brief, (Washington, D.C.: National Center for Education Statistics, June 1992), 2, ERIC, ED 341513.

1

school environment, in attempts to determine if the home environment effects reading achievement.

Some of the aspects studied can have little practical value for parents, such as studies about relationships between reading achievement and racial origin or socio-economic status (SES). However, as Wigfield and Asher suggest, "Work on particular environmental features would allow researchers to go beyond the more general demographic variables of race or SES in explaining performance differences in reading."[2]

Other studies that focus on parental beliefs, expectations or attitudes[3] may not demonstrate a true relationship to reading achievement unless those values are reinforced by parental modelling or guidance.[4] In which case, parental attitudes are manifested to their offspring by parental behaviors and parental expectations are reinforced by family rules or guidelines.

Ultimately, it must be the child's own experiences or activities outside of school that have the most effect on his or her ability to achieve. Just as it is each child's learning

---

[2] Allen Wigfield and Steven R. Asher, <u>Social and Motivational Influences on Reading</u>, (Urbana, IL: Center for the Study of Reading, 1983), 44, ERIC, ED 235465.

[3] Joan M.Tassopulos, <u>The Relationship of Maternal Inputs and SES to Reading Achievement in Black Families</u>, Paper presented at the Annual Meeting of the American Educational Research Association, New York, NY, 19-23 March 1982, 2-9, ERIC, ED 214135.

[4] Christine M. Bachen and others, <u>Television Viewing Behavior and the Development of Reading Skills: Survey Evidence</u>, Paper presented at the Annual Meeting of the American Educational Research Association, New York, NY, 19-23 March 1982, 23-24, ERIC, ED 214150.

2

experiences in school, that most influences individual growth in learning. That is why parents who are concerned about their child's academic achievement seek to assist in the education of their children and frequently show a special interest in how they can help to establish good reading skills in the home environment.

STATEMENT OF THE PROBLEM

The purpose of this study was to investigate five aspects of the home environment of students in the first through fifth grades at Christian Life Elementary School in Kenosha, Wisconsin, to see if any common experience existed among those students reading above grade level.

The five aspects of home environment investigated by this study were time spent viewing television, time spent doing homework, time involved in recreational reading, time spent with a non-parental care giver, and bedtime.

THE SUBPROBLEMS

THE FIRST SUBPROBLEM

The first subproblem was to investigate how much time students spent watching television after school.

THE SECOND SUBPROBLEM

The second subproblem was to investigate how much time students spent doing homework after school.

THE THIRD SUBPROBLEM

The third subproblem was to investigate how much time students were involved in recreational reading after school.

THE FOURTH SUBPROBLEM

The fourth subproblem was to investigate how much time students spent with non-parental care givers after school.

THE FIFTH SUBPROBLEM

The fifth subproblem was to investigate what time students went to bed after a school day.

THE NULL HYPOTHESES

THE MAIN HYPOTHESIS

There will be no relationship between the reading achievement of students who are reading above grade level and the time spent on five activities in their home environment after school.

HYPOTHESIS 1

There will be no relationship between the time spent viewing television and the reading achievement of first through fifth grade students who are reading above their grade level.

HYPOTHESIS 1A

There will be no relationship between the time spent viewing television and the reading achievement of first grade students who are reading above their grade level.

4

HYPOTHESIS 1B

There will be no relationship between the time spent viewing television and the reading achievement of second grade students who are reading above their grade level.

HYPOTHESIS 1C

There will be no relationship between the time spent viewing television and the reading achievement of third grade students who are reading above their grade level.

HYPOTHESIS 1D

There will be no relationship between the time spent viewing television and the reading achievement of fourth grade students who are reading above their grade level.

HYPOTHESIS 1E

There will be no relationship between the time spent viewing television and the reading achievement of fifth grade students who are reading above their grade level.

HYPOTHESIS 2

There will be no relationship between the time spent doing homework and the reading achievement of first through fifth grade students who are reading above their grade level.

HYPOTHESIS 2A

There will be no relationship between the time spent doing homework and the reading achievement of first grade students who are reading above their grade level.

HYPOTHESIS 2B

There will be no relationship between the time spent doing

homework and the reading achievement of second grade students who are reading above their grade level.

HYPOTHESIS 2C

There will be no relationship between the time spent doing homework and the reading achievement of third grade students who are reading above their grade level.

HYPOTHESIS 2D

There will be no relationship between the time spent doing homework and the reading achievement of fourth grade students who are reading above their grade level.

HYPOTHESIS 2E

There will be no relationship between the time spent doing homework and the reading achievement of fifth grade students who are reading above their grade level.

HYPOTHESIS 3

There will be no relationship between the time spent leisure reading and the reading achievement of first through fifth grade students who are reading above their grade level.

HYPOTHESIS 3A

There will be no relationship between the time spent leisure reading and the reading achievement of first grade students who are reading above their grade level.

HYPOTHESIS 3B

There will be no relationship between the time spent leisure reading and the reading achievement of second grade students who are reading above their grade level.

6

HYPOTHESIS 3C

There will be no relationship between the time spent leisure reading and the reading achievement of third grade students who are reading above their grade level.

HYPOTHESIS 3D

There will be no relationship between the time spent leisure reading and the reading achievement of fourth grade students who are reading above their grade level.

HYPOTHESIS 3E

There will be no relationship between the time spent leisure reading and the reading achievement of fifth grade students who are reading above their grade level.

HYPOTHESIS 4

There will be no relationship between the time spent after school with a non-parental caregiver and the reading achievement of first through fifth grade students who are reading above their grade level.

HYPOTHESIS 4A

There will be no relationship between the time spent after school with a non-parental caregiver and the reading achievement of first grade students who are reading above their grade level.

HYPOTHESIS 4B

There will be no relationship between the time spent after school with a non-parental caregiver and the reading achievement of second grade students who are reading above their grade level.

7

HYPOTHESIS 4C

There will be no relationship between the time spent after school with a non-parental caregiver and the reading achievement of third grade students who are reading above their grade level.

HYPOTHESIS 4D

There will be no relationship between the time spent after school with a non-parental caregiver and the reading achievement of fourth grade students who are reading above their grade level.

HYPOTHESIS 4E

There will be no relationship between the time spent after school with a non-parental caregiver and the reading achievement of fifth grade students who are reading above their grade level.

HYPOTHESIS 5

There will be no relationship between the bedtime and the reading achievement of first through fifth grade students who are reading above their grade level.

HYPOTHESIS 5A

There will be no relationship between the bedtime and the reading achievement of first grade students who are reading above their grade level.

HYPOTHESIS 5B

There will be no relationship between the bedtime and the reading achievement of second grade students who are reading above their grade level.

HYPOTHESIS 5C

There will be no relationship between the bedtime and the

8

reading achievement of third grade students who are reading above
their grade level.

HYPOTHESIS 5D

There will be no relationship between the bedtime and the
reading achievement of fourth grade students who are reading
above their grade level.

HYPOTHESIS 5E

There will be no relationship between the bedtime and the
reading achievement of fifth grade students who are reading above
their grade level.

THE SIGNIFICANCE OF THE STUDY

Some studies of the effects of home environment on reading
achievement have focused on secondary students, those researchers
suggesting the possibility of cumulative effects of the home
environment on reading achievement. Others have investigated
younger children whose reading abilities are just developing.
This study focused on students in the first through fifth grades
to examine the possibility that the stage of reading development
may be a critical variable in the effects of home environment on
reading achievement. Jeanne Chall, professor at Harvard Graduate
School of Education and director of the Reading Laboratory,
proposes six stages of reading development, the first four
through which children would progress in their elementary years.[5]

---

[5] Jeanne S. Chall, "Reading and Early Childhood Education:
The Critical Issues. Special Report: Early Childhood Education,"
Principal, 66:5 (May 1987) 6-9.

A brief description of Chall's first four stages follows.

1. Stage 0, Prereading, from birth to about age six. This stage is characterized by growing control over language and awareness of the printed media.

2. Stage 1, Initial Reading or Decoding, grades one and two. The development of skills and insight into sound-letter relationships.

3. Stage 2, Confirmation, Fluency, and Ungluing from Print, grades two and three. Consolidation of reading skills and word recognition.

4. Stage 3, Learning the New, grades four through eight. Using reading as a tool for acquiring knowledge, and insights into values, feelings and attitudes.[6]

As Christine Bachen wrote in her study of 580 second, third and sixth grade students, "[Chall's] model implies a more important influence of the home environment among younger children--up to approximately age nine. After that age, the basic skills are fairly well implanted, and we would expect to see more individual differences emerging in the use of reading for information acquisition."[7]

This study seeks to investigate five specific aspects of the after school environment of a group of above average readers who, by grade level, fall within Chall's stages 0 through 3. The common experiences shared by these students, in reference to the

---

[6] Chall, 6.

[7] Bachen and others, 9.

10

21

five aspects of home environment investigated by this study, may

shed light on how the home environment effects reading

achievement. In addition these experiences may provide direction

for educators and parents.

DELIMITATIONS

   THE FIRST DELIMITATION

   The study did not investigate the reading instruction at

Christian Life Elementary School.

   THE SECOND DELIMITATION

   The study did not investigate aspects of family background

such as racial origin.

   THE THIRD DELIMITATION

   The study did not investigate aspects of family background

such as socio-economic status.

   THE FOURTH DELIMITATION

   The study limited itself to the investigation of students in

the first through the fifth grades at Christian Life Elementary

School in Kenosha, Wisconsin.

DEFINITION OF TERMS

   Bedtime was defined as "lights out" time.

   Home environment meant the experiences of a child outside of

the school day.

   Homework included reading assignments, written assignments,

oral drills and studying, or mentally rehearsing subject matter

for school.

Non-parental care givers were those persons who were responsible for the care of students after school hours, when a parent was not present.

Reading above grade level was determined by the grade equivalency scores of each individual on the Stanford Achievement Test.

Reading achievement was demonstrated by scores on the Stanford Achievement Test in word attack skills, vocabulary development, and reading comprehension.

Recreational or Leisure reading was defined as reading (or being read to) any material that was not part of a school assignment.

Television viewing included time spent watching television shows, movies, videos, and involvement with television video games.

THE ASSUMPTIONS

THE FIRST ASSUMPTION

The first assumption was that students' reading achievement is influenced by factors outside of school.

THE SECOND ASSUMPTION

The second assumption was that parents would report time accurately on the five aspects of home environment investigated by this study.

12

THE THIRD ASSUMPTION

The third assumption was that the times reported for the five aspects of home environment were representative of the time participants typically spent on these same aspects.

THE FOURTH ASSUMPTION

The fourth assumption was that the Stanford Achievement Test (SAT) accurately assesses the reading achievement level of students.

THE FIFTH ASSUMPTION

The fifth assumption was that the staff at Christian Life School would correctly administer the SAT.

SUMMARY

Good reading skills are important to learning in almost every subject at school, probably every area of life. Most parents know this and are interested in promoting the reading achievement of their children.

Studies have shown that academic achievement is effected by children's experiences outside of school. The purpose of this study was to provide more information about students that are reading above grade level, in terms of five aspects of their home environment. The common experiences shared by these students may have promoted their reading achievement. Potentially, these same experiences could be encouraged by teachers and parents, to promote reading achievement in all children, especially those in the early stages of reading development.

13

REVIEW OF THE LITERATURE

"Reading abilities, as measured by reading achievement tests, are dependent upon far more than just the formal instruction offered by the schools."[8]   The debate begins when different factors in the home environment are examined. Some studies focus on a single input from the home environment, others investigate interacting variables conjecturing "that certain family factors, when grouped together, account for some of the explained variation in reading achievement."[9] Five such factors are: time spent viewing television, time spent doing homework, time spent leisure reading, time spent with a non-parental care giver, and bedtime. Some findings of the direct and indirect effects of these factors on reading achievement are explored below.

TELEVISION VIEWING

The effects of television viewing continue to be a topic in many fields of research, especially for those in education. In a 1982 study of second, third and sixth grade students, Bachen found a negative correlation between television viewing and reading achievement.[10] However, data from the 1980 and 1984

---

[8] Bachen and others, 31.

[9] Tassopulos, 3-4.

[10] Bachen, 1-32.

14

National Assessments of Educational Progress (NAEP) supported those results only for students involved in excessive television viewing. "Six or more hours of TV viewing per day is consistently and strongly related to lower reading proficiency..." for nine, thirteen and seventeen year olds.[11] Yet, "Nine and thirteen year old students clearly favored television viewing to other media activities."[12] In fact, "In 1984, fully 27 percent of the 9-year-olds (or about 828,000 children nationally) reported watching more than six hours of television per day, up from 18 percent four years earlier."[13]

Reporting on eight statewide assessments in 1986, Neuman claimed as little as "Four or more television hours per day appeared to strongly relate to lower achievement scores..."[14] in reading. But as she discussed in her analysis, "there has been a lack of convergence across studies regarding the relationship between television and learning. Not unlike other fields of inquiry, however, two schools of thought have emerged: one which claims that there are no apparent effects, and the second, that the strength of the effects have been masked due to flaws in

---

[11] The Reading Report Card: Progress Toward Excellence in Our Schools. Trends in Reading over Four National Assessments, 1971-1984, (Princeton, NJ: National Assessment of Educational Progress, 1985), 52, ERIC, ED 264550.

[12] Susan B. Neuman, Television and Reading: A Research Synthesis, Paper presented at the International Television Studies Conference, London, England, 10-12 July 1986, 20, ERIC, ED 294532.

[13] The Reading Report Card, 52.

[14] Neuman, 15.

15

research designs."[15]

DISPLACEMENT

Most concern regards television viewing as, potentially, displacing other activities that children could pursue. Indeed, a question develops as to whether children watching six or even four hours of television a day would have time to be involved in many other activities. Robert Hornik, of the Annenberg School of Communications at the University of Pennsylvania, defined one displacement hypotheses that argues "television diverts a student away from school-helping activities, such as reading, homework, sleeping..."[16] Thus, television could have an indirect negative effect on school achievement. Several studies have been done to examine the relationships between television and other variables in the home environment to investigate this theory of displacement. Relevant research will be discussed in the following pages under the topics of homework, leisure reading, after school care and bedtime.

HOMEWORK

"In general, students who receive homework assignments and do them tend to read at higher proficiency levels than students who do not have assigned homework or who do not do their assigned

---

[15] Neuman, 1.

[16] Robert Hornik, "Out-of-School Television and Schooling: Hypotheses and Methods," <u>Review of Educational Research</u>, 51:2 (Summer 1981) 194.

16

homework. At age 13, reading proficiency was highest for students who spent from one to two hours per night on homework; at age 17, for those who spent more than two hours," according to data from the NAEP in 1980 and 1984.[17] Homework is intended to reinforce school instruction, and although the type of homework (ie. reading, math, ..., assignments) was not specified in the NAEP report, homework apparently does promote reading proficiency.

Neuman suggested that amount of time spent doing homework changes through the grades. And students may be assigned different amounts of homework reflecting the students' grade level or the philosophy of the school or teacher. According to the NAEP data, "...approximately 1/3 of the students in the fourth grade did not receive any homework. Of those nine-year olds that did, over 40% spent less than one hour completing assignments."[18] And though highest reading proficiency is found among thirteen year olds completing one to two hours of homework, only one fourth of them spent that amount of time, per night, on homework activities.[19] Finally, "More than 1/3 of the students at age 17 were not given or did not do homework the previous night."[20] Even though, "...at age 17 increasing time spent on homework is systematically related to increasing levels of

_____

[17] The Reading Report Card, 54.

[18] Neuman, 21.

[19] Neuman, 22.

[20] Neuman, 22.

reading proficiency."[21]

Is there reason for concern that television may be competing for time students spend on homework assignments? "The Reading Report Card", focusing on trends in reading achievement from 1970 to 1984, says "Yes." For thirteen and seventeen year old "...students with homework assignments, those spending the most time on homework spent the least time watching television..."[22] Barbara Ward, at the Department of Instructional Media, California State University in Long Beach, discussed the interaction of NAEP data on television watching, homework, and reading achievement. "When both homework and television watching were taken into consideration, 13-year-olds who watched moderate (one to two) hours of television and did one to two hours of homework showed the highest achievement levels, followed by those who did an equal amount of homework but watched under an hour of television. Performance was lowest for 13-year-olds who watched over four hours of television and had homework but didn't do it. The lowest performing readers for each category of homework done were those watching over four hours of television and the highest those watching one to two hours. One to two hours of homework seemed optimum regardless of the television watching category. For 17-year-olds, television watching, homework and reading comprehension appeared to be directly related. Among 17-year-olds, the highest reading performance was found for those doing

---

[21] The Reading Report Card, 54.

[22] The Reading Report Card, 38.

18

the most homework and watching the least television."[23]

LEISURE READING

"For all students, one to two hours of spare time reading a day appears to be associated with highest reading comprehension..."[24] Unfortunately Ward found, most students read less than one hour a day, if at all.[25] In discussing what parents can do to motivate leisure reading in their children, Wigfield and Asher suggested in their paper on Social and Motivational Influences on Reading, that simply making reading materials available is not enough. They believe that "...material availability, likely, is mediated by the ways in which parents become involved with those materials. For instance, the extent to which parents model reading activity, read to their children, and otherwise encourage their children to read, should influence whether children become good readers."[26]

In a 1990 study of kindergarten and first grade students, Meyer found the frequency with which parents helped their children read correlated with the frequency they read aloud to their children and the frequency their children read alone. The

---

[23] Barbara Ward, and others, The Relationship of Students' Academic Achievement to Television Watching, Leisure Time Reading and Homework, (Washington, D.C.: National Institute of Education, 1983), 39-40, ERIC, ED 236249.

[24] Ward, and others, 36.

[25] Ward and others, 42.

[26] Wigfield and Asher, 17.

19

end result showed significant correlations with the child's fall and spring scores for both the Wide Range Achievement Test (WRAT) and Woodcock Reading Test.[27]

Ward also wrote about the interaction of spare time reading and television, referring to the 1980 NAEP data for thirteen and seventeen year olds, "Spare time reading and television do not appear to compete for most students' time, largely because very few teenagers read for more than an hour a day."[28] However, this data cannot show how students would spend their leisure time without the option of television. As Neuman defined the effect of displacement, calling it "...the reorganization of activities by children as a result of various media options."[29] Children may very well be choosing the medium of television over printed media for their information and entertainment needs.

AFTER SCHOOL CARE

With the changing demographics of the family and more women working outside the home, researchers are examining the effects of pre-school, day-care and after school care programs. In 1988 Vandell and Corasaniti studied a group of third graders who were involved in a variety of after school situations. They found

---

[27] Linda A. Meyer, and others, Home Support for Emerging Literacy: What Parents Do That Correlates with Early Reading Achievement (Urbana, IL; Center for the Study of Reading, 1990), 10, ERIC, ED 325830.

[28] Ward, 42.

[29] Neuman, 3.

"Fifty-four percent of the third graders returned home to their mothers after school. The second most common after-school arrangement (used by 16% of the families) was for the children to return home to siblings, who were typically between 10 and 13 years old. An additional 7% of the children returned home alone. Thus, 23% of the children qualified as latchkey children -- children who return home from school to a house without adult supervision. Eleven percent of the children attended and after-school program at either a day-care center or community center. These day-care centers were almost exclusively proprietary institutions. Twelve percent of the children stayed with a sitter either at their own home or at the sitter's house (5% of these sitters were relatives)."[30] Vandell and Corasaniti found that, socially and academically "children who stayed at the day-care centers after school were having problems."[31] They also scored lower on standardized tests.[32] No other group was similarly effected.

In an earlier 1985 study of third grade students, Pinkett examined the long term effects of preschool and daycare attendance versus home care before kindergarten. Two results were evident. There were no disadvantages in social or cognitive

---

[30] Deborah Lowe Vandell and Mary Anne Corasaniti, "The Relation Between Third Graders' After-School Care and Social, Academic, and Emotional Functioning," <u>Child Development</u>, 59:4, August 1988, 869-870.

[31] Vandell and Corasaniti, 874.

[32] Vandell and Corassaniti, 873.

21

competence by third grade for those students who experienced home care before kindergarten.[33]   But, children who attended full-day, daycare, five days a week before kindergarten did score lower on reading achievement, a result that Pinkett attributed to their lower IQ scores.[34]

In 1983 Milne presented a study of elementary students from four sub-groups: two parent, white households, one parent, white households, two parent, black households and one parent, black households.   She found students from the two parent households scored above those from the one parent households in reading and math, but attributed that finding to the larger family income of the two parent households.[35]   Milne also stated "The direct effects of maternal work tend to be significant and negative in the two-parent white and two-parent black samples."[36]   She postulated "...the mother's income apparently is not sufficient to offset the negative direct effect of her working and thus, of her diminished time at home."[37]

---

[33] Kathleen E.L. Pinkett, <u>Preschool Attendance and Type of Experience in Advantaged Children: Long-Term Effects by Third Grade</u>, Paper presented at the Annual Meeting of the National Association for the Education of Young Children, New Orleans, LA, 14-17 November 1985, 12, ERIC, ED 265942.

[34] Pinkett, 26.

[35] Ann M. Milne, and others, <u>Single Parents, Working Mothers and the Educational Achievement of Elementary School Age Children</u>, (Washington, D.C.: Department of Education, 1983), 25-26, ERIC, ED 234092.

[36] Milne and others, 27.

[37] Milne and others, 30.

22

In a more recent paper, Milne presented similar results from a study of high school sophomores and seniors, in which the retrospective data on the mothers' employment history seemed to demonstrate "an apparent cumulative effect of mother's employment over the student's lifetime."[38] Milne went on to report specifically about maternal work in two parent, white households. "The negative effects of working full-time over the child's lifetime are greater than the negative effects of working full- or part-time at some time."[39] One reason for these cumulative effects on achievement could be the likelihood of teenagers being left unsupervised more often than elementary school children after school. Milne found these students spent "less time on homework and reading and more time watching T.V. than children whose mothers do not work: therefore, their achievement is lower."[40]

But in their examination of the relationship between parental work status and television use by school age children, Messaris and Hornik did not find support for more time watching television by children whose parents were working. Rather the data from their 1983 analysis indicated "...children in single-parent homes watch a good deal more television than do children

---

[38] Ann M. Milne, and others, "Single Parents, Working Mothers and the Educational Achievement of School Children," Sociology of Education, Vol.59, July 1986, 138.

[39] Milne, Myers, Rosenthal, and Ginsberg, 135.

[40] Milne, Myers, Rosenthal, and Ginsburg, 135.

23

from two-parent homes, ..."[41] regardless of parental work
status.

BEDTIME

Little data is available on the relationship between
achievement and bedtime, yet many parents establish a bedtime for
their elementary school children, especially on school nights.
This not only provides for a regular routine in the home
environment, but insures enough rest for the health and well-
being of their children. The Mayo Clinic Family Health Book
asserts, "At age six, most children require almost eleven hours
of sleep to feel their best. This amount declines gradually to
just over nine hours by the time they reach age twelve."[42]

In a 1985 study of gifted and non-gifted middle school
students, Roderick and Jackson wrote, "A greater proportion of
the gifted students go to bed between 9:00 p.m. and 10:00 p.m.
compared to the non-gifted students, most of whom do not have a
fixed bedtime on school nights and who tend to go to bed by 10:00
p.m. or later."[43]

---

[41] Paul Messaris and Robert C. Hornik, "Work Status,
Television Exposure, and Educational Outcomes," Chapter in
Children of Working Parents: Experiences and Educational
Outcomes, Cheryl D. Hayes and Shelia B. Kamerman, eds.,
(Washington, D.C.: National Academy Press, 1983), 51, ERIC, ED
231727.

[42] David E. Larson, M.D., ed. Mayo Clinic Family Health
Book, (New York: William Morrow and Company, Inc., 1990), 122.

[43] Juanita Roderick and Patricia Jackson, Television Viewing
Habits, Family Rules, and Reading Grades of Gifted and Non-gifted
Middle School Students, Paper presented at the Conference for the

In further investigation of the home environments of both
groups, Roderick and Jackson found fewer students in the gifted
program had their own personal television sets than those
students not in the program. Those not in the program also
watched more television after school and in evenings.[44] Not
surprisingly, students in the gifted program received higher
grades in reading.[45] Roderick and Jackson summarize, "The
findings that students not in the gifted program spend more time
watching television after school and in evenings, stay up later
on school nights, and get lower grades in reading may be
attributed to the fact that they have their own personal
television sets."[46] Television may be displacing sleep and
other activities for these students, which may in turn have an
indirect effect on reading achievement.

Selnow and Reynolds agree. Their 1984 study of middle
school students showed sleep topping the list of activities
displaced by television, for this group. "The greater amount of
time spent viewing television, the less time these adolescent
respondents spent sleeping."[47]

Ohio Association for Gifted Children, March 1985, 12, ERIC, ED
264050.

[44] Roderick and Jackson, 6.

[45] Roderick and Jackson, 7.

[46] Roderick and Jackson, 17.

[47] Gary W. Selnow and Hal Reynolds, "Some Opportunity Costs
of Television Viewing," Journal of Broadcasting, 28:3 (Summer
1984) 321.

25

RELATIONSHIP OF THIS STUDY TO PREVIOUS STUDIES

Upon review of the related literature it becomes apparent that researchers have not reached a consensus in reference to the effects of these five aspects of home environment on reading achievement. Perhaps the differences are due to the differences in populations studied. As discussed earlier Roderick and Jackson investigated the differences in television use, leisure reading and bedtime between a group of gifted middle schoolers and those not in the gifted group. Another way to examine these variables is to look at the potential for factors in the home environment to effect children of different ages or abilities in different ways. Some topics, like television and leisure reading have been studied to examine the possibility that children of different abilities are effected differently by these factors in their home environment. For example, in 1982 Morgan found "...particularly strong negative associations for high IQ students..."[48] while examining the correlation between television viewing and reading achievement scores for a group of ninth graders.

Could television be displacing leisure reading for high ability students and thus producing a negative effect on their reading achievement? The answer appears to be "No." According to the students in Roderick and Jackson's study, "...78.5% of

---

[48] Michael Morgan, <u>More Than a Simple Association: Conditional Patterns of Television and Achievement</u>, Paper presented at the Annual Meeting of the American Educational Research Association, New York, NY, March 1982, 2, ERIC, ED 217864.

26

the nongifted students compared to 30.8% of the gifted indicated
that they would rather watch television than read..."[49]
Covington would concur. In her 1985 study of seventh grade
advanced and regular reading students "...data indicated that
students with higher reading achievement scores watch less
television than students with lower reading scores. She also
found that students with higher reading achievement scores read
more books than students with lower reading achievement scores.
Thirdly, parents of the advanced students read more often to
their children than parents of the regular students."[50]

In a 1984 Australian study comparing eleventh grade above
average, average, and below average readers, Patterson found only
12% of the above average readers did not engage in leisure
reading. However, almost half of average and below average
readers did not engage in leisure reading.[51] Therefore, the
possibility for displacement seems much stronger for students who
are not necessarily high ability readers.

Although, above average readers probably read more because
of the facility they have with the medium. It is also possible,
their choice of leisure activity promotes their reading ability.
Less clear, is why Morgan's study found television had stronger

---

[49] Roderick and Jackson, 7.

[50] Veronica Covington, Leisure Time Reading Versus
Television Viewing Time for Seventh Grade Reading Students,
(Research Study for ASC 579, San Houston State University),1985,
19, ERIC, ED 275989.

[51] Annette Patterson, "Leisure Reading and the Year Eleven
Student," English In Australia, No. 75 (March 1986); 43.

negative effects on the reading achievement of students with high IQ. Perhaps television viewing was displacing homework, or had some kind of direct negative effect on the reading achievement of those students, as opposed to an indirect effect through displacement.

SUMMARY

This study sought to investigate the experiences of first through fifth grade above average readers in terms of five aspects of their home environment, including, time watching television and leisure reading, as well as time doing homework, time with a non-parental care giver, and bedtime. These factors in the home environment have been of interest to other researchers, although there is not necessarily a unanimity, among the studies reviewed, about the effects of each aspect of home environment on reading achievement. Learning to read is a complex process, one that could be expected to show different effects at each stage of the reading process. Potentially, as Bachen claims, the effects of home environment may be more apparent in the earlier stages of the process.

If this is the case, parents of elementary school children have a great opportunity to promote the reading achievement of their children. Wigfield and Asher believe "...parent-child interaction is the most important home influence on children's later achievement behavior in school...," and recommend focusing on how "...parents facilitate or constrain the development of

28

reading skills and motivation to read by structuring the home
environment and interacting with their children."[52]

Thus, the purpose of this study was to investigate those
students that are having success in reading acquisition at each
grade level, one through five, in order to explore the
relationships of the five specific aspects of their home
environments to their reading achievement. The information
obtained tells us more about the home environments of children
who are successful in the acquisition of reading skills. This
information will then be available for the further knowledge of
researchers, educators and, especially, parents.

---

[52] Wigfield, Allen, and Asher, Steven R., 11.

29

CHAPTER THREE

METHOD AND ANALYSIS OF DATA

The purpose of this study was to collect data from parents
of a specific student population, to describe that population and
to determine the relationship between reading achievement and
five variables in the home environments' of those students. The
plan of the study was reviewed and approved by the Cumberland
College Research Ethics Committee prior to implementation.

THE DATA

Demographic data was gathered for the purpose of describing
the population of the sample, through the participating school's
staff and parents of the students involved in the study. Data
about the five variables of the home environment was submitted by
parents participating in the study. Data on reading achievement
was obtained through SAT scores of students participating in the
study, for the purpose of examining a correlation between reading
achievement scores and five variables in their home environment.
See Appendix A.

The Stanford Achievement Test is a norm-referenced, survey
achievement test battery published by The Psychological
Corporation since 1923. It is currently in its eighth edition.
The reading component of the test scores sub-groups in reading
achievement for each grade level, as well as a total reading
score. Grade one sub-groups are: Word Study Skills, Word

30

Reading, and Reading Comprehension. Sub-groups for grades two and three are: Word Study Skills, Reading Vocabulary, and Reading Comprehension. Grades four and five sub-groups are: Reading Vocabulary and Reading Comprehension.

SELECTION OF SUBJECTS

The target population was 130 students who were enrolled in grades one through five at Christian Life School in Kenosha, Wisconsin in spring of 1994. Christian Life School (CLS) is a small, private school with an academic program from four year old kindergarten through the twelfth grade. During the 1993/1994 school year, 330 children from the Kenosha area and surrounding communities attended CLS. Ten percent of students attending CLS at the time of the study participated in the Federal lunch program for free or reduced lunches.

Approximately ten percent of the target population were members of single parent households. Exactly ten percent of the target population were Asian, Black, Hispanic or of Multi-racial origin. Over eighty percent of parents participating in the study categorized their community of residence as a city, town or suburban area. Less than ten percent categorized their community of residence as rural. Four participants did not answer this question.

PROCEDURES

The plan of the study was reviewed and approved by

31

42

Administrator Paul Blount before parents of students in the
target population were solicited to participate. See Appendix B.
Parents were solicited by letter for their participation in the
study. This letter was distributed to 130 first through fifth
grade students at CLS, in class to go home to their parents.
Students received a second copy of the letter after a week,
unless a response had already been received by the parent.
Regular announcements about the study, and collections of parent
responses were made at school and at parent/teacher meetings
throughout the three weeks of parent solicitation. Of the
parents in the target population solicited, sixty agreed to
participate in the study.

Parents volunteered to participate in the study by filling
out a signed, release form. This form stated their willingness
to complete an activity log for five consecutive school days, to
be returned to school after the five day period, for inclusion in
the study. The activity log was a record of the time spent by
the child after school, on the five activities investigated by
the study. Four of the activities were broken down into
components and parents were asked to record time for each
component of the activity rather than a total time spent for the
activity. See Appendix C.

Time spent after school without a parent as care giver was
recorded in four parts: time spent in an extended daycare
program, time spent with a sitter, who was not a family member,
time spent with a family member, other than a parent, and time

32

spent unsupervised by an adult care giver. Television viewing
was recorded in three components: time spent watching television
shows and movies, time spent watching videos, and time spent
playing television video games. Time spent doing homework was
recorded in four components: written assignments, reading
assignments, oral drills, and studying, or mentally rehearsing
school material. Time spent leisure reading (material that was
not part of a school assignment) was recorded in three parts:
reading aloud, silent reading, and being read to. Bedtime was
not divided into components.

The purpose of these divisions was to better enable the
parent to understand each activity, as defined by the researcher,
so that the data collected would be consistent across the sample.
The activity log was also accompanied by a set of simple
directions and definition of terms for clarification to aid
parents in completion of the log. See Appendix D. The data for
the activity log was recorded by parents during the week of May
16 - 20, 1994. Release forms, demographic data and activity logs
were collected and reviewed by Elementary School Principal Sonja
Kurland before submission to the researcher.

The signed, release form also gave permission for the
researcher to obtain SAT reading achievement scores from CLS, for
the child of parents participating in the study. All students at
CLS take the complete battery of the SAT on yearly basis. The
test, as is typical, was given during the eighth month of the
school year, administered by the CLS staff. The testing dates

for this year were April 18 - 22, 1994. Test scores were recorded and submitted to the researcher by a member of the CLS staff, for only those students with signed release forms.

THE CRITERIA FOR THE ADMISSIBILITY OF THE DATA

A signed release form was necessary to participate in the activity log. Only activity logs that were completed in accordance to the directions were accepted for use in the study. Incorrect or incomplete activity logs were not accepted for use in the study. Activity logs must have been completed during the week of May 16 - 20, 1994 for inclusion in the study.

A grade equivalency score beyond the eighth month of the current grade of the student was required in the total reading component of the SAT, for inclusion in the study. Activity logs were accepted from all students whose parents wanted to participate in the study because SAT results were not available until the school year was ended. However, only the activity logs submitted by students with total reading scores above the eighth month of their current grade level were used in the study. There were thirty-five completed activity logs collected, for students with total reading scores above the eighth month of their current grade level. Students who were unable to take the reading component of the SAT due to absence were not included in the study.

34

THE TREATMENT OF THE DATA

The Labstat Statistical Analysis Package, Version 2.01, written by Bruce B Abbott, Ph.D., copyright 1991 by Mayfield Publishing Co., Mountain View, California, was used to analyze data from activity logs and SAT results incorporated into the study. Both univariate descriptive statistics and Pearson Product-Moment correlation statistics were compiled for analysis.

Univariate descriptive statistics were compiled for each grade level and for the entire group, one through five. These descriptive statistics were completed for each component of the five aspects of the home environment, as well as a total for each aspect (ie. reading aloud, silent reading, being read to, total leisure reading), and for the grade level equivalency of the total reading score of the SAT and the sub-groups at each grade. Because grades differed in the sub-groups tested for the total reading component, the analysis for the entire group, grades one through five includes only the grade equivalency for the total reading score and reading comprehension, a sub-group tested at each of the five grade levels. This information was used to analyze the common experiences in the home environments of the subjects.

Pearson Product-Moment correlations were compiled for each component of the aspects of the home environment, sub-groups of reading and totals of both, as described previously. Again, the analysis for the entire group, grades one through five, included only the grade equivalency for the total reading score and the

35

sub-group: reading comprehension. The analysis at each grade
level includes all sub-groups of the reading component of the SAT
at that grade level. This information was used to analyze
correlations between data from the home environment and reading
achievement scores, as well as correlations between time spent on
various activities, and components of those activities, in the
home environment.

The data for each component of the home environment was
entered in minutes, as was the total time spent for each aspect
of the home environment investigated by this study, except for
bedtime. Data for bedtime was entered as hour, decimal point,
parts of an hour. Grade equivalency data for reading sub-groups
and total reading scores was entered by year, decimal point,
month, just as it is represented in the SAT results.

SUMMARY

The plan of the study was approved by the Cumberland College
Research Ethics Committee and by the administration at Christian
Life School. Parents of first through fifth graders at CLS were
solicited by letter for their voluntary participation in the
study. Proper release was obtained for all data collected.
Statistical data was compiled through the Labstat software
program for analysis.

36

47

RESULTS

The purpose of this study was to investigate five activities in the home environment of a selected group of first through fifth grade students, to determine whether there was a relationship between the time students spent on those activities, and the SAT reading scores of those students. The five activities were time spent viewing television, time spent doing homework, time spent leisure reading, time spent after school with a caregiver other than a parent, and bedtime.

Thirty-four first through fifth grade students who were reading above their grade level met the qualifications for inclusion in the study. Relationships between the five activities and reading achievement were examined for the group as a whole and at each grade level. Each activity, except bedtime, was investigated in components, as defined by the researcher, and total time spent in that type of activity. Reading achievement was also examined in components, as described in the Stanford Achievement Test Manual, as well as the total reading achievement scores.

Data was gathered and analyzed for the purpose of describing the selected group and in order to test the null hypotheses of the study. The Pearson Product-Moment Correlation Coefficient was used to test the null hypotheses to determine if any relationships existed between reading achievement and the five

37

activities investigated by this study.

STATISTICAL ANALYSIS OF THE DATA

Hypothesis 1

There will be no relationship between the time spent viewing
television and the reading achievement of first through fifth
grade students who are reading above their grade level. The
results indicated that there were no significant relationships
between reading achievement and the total time spent viewing
television or for the components of time spent viewing television
shows and movies or time spent viewing videos. However, there
was a modest relationship between total reading scores and time
spent interacting with television video games. The hypothesis
was rejected. (Table 1)

38

TABLE 1

RELATIONSHIPS BETWEEN STANFORD ACHIEVEMENT TEST READING

SCORES AND TIME INVOLVED WITH TELEVISION ACTIVITIES

VARIABLES		COMPREH		TOTAL
TV SHOWS & MOVIES		.06		.19
TV VIDEOS		-.02		.03
TV VIDEO GAMES		.28		.34*
TOTAL TELEVISION		.07		.20

LEGEND: * $p < .05$

** $p < .01$

*** $p < .001$ N = 34

Hypothesis 1A

There will be no relationship between the time spent viewing television and the reading achievement of first grade students who are reading above grade level. The results indicated that there were no significant relationships between these variables or their components at this age level. The hypothesis was accepted. (Table 1A)

39

TABLE 1A

RELATIONSHIPS BETWEEN STANFORD ACHIEVEMENT TEST READING

SCORES AND TIME INVOLVED WITH TELEVISION ACTIVITIES

VARIABLES	W.S.S	COMPREH	W.REC	TOTAL
TV SHOWS & MOVIES	.46	.23	.68	.53
TV VIDEOS	.33	.32	.64	.51
TV VIDEO GAMES				
TOTAL TELEVISION	.44	.29	.72	.56

LEGEND: *   p< .05

**   p< .01

***   p< .001   N = 5

Hypothesis 1B

There will be no relationship between the time spent viewing television and the reading achievement of second grade students who are reading above grade level. The results indicated that there were no significant relationships between reading achievement and total time spent viewing television or it's component of television shows and movies. However, there were significant relationships between reading vocabulary scores and time spent viewing videos and time spent interacting with television video games for this group. The hypothesis was rejected. (Table 1B)

40

TABLE 1B

RELATIONSHIPS BETWEEN STANFORD ACHIEVEMENT TEST READING

SCORES AND TIME INVOLVED WITH TELEVISION ACTIVITIES

VARIABLES	W.S.S.	COMPREH	VOCAB	TOTAL
TV SHOWS & MOVIES	.33	-.33	.66	.31
TV VIDEOS	.70	.09	.97**	.69
TV VIDEO GAMES	.70	.09	.97**	.69
TOTAL TELEVISION	.39	-.30	.71	.37

LEGEND: *   p< .05

**   p< .01

*** p< .001   N = 5

Hypothesis 1C

There will be no relationship between the time spent viewing
television and the reading achievement of third grade students
who are reading above grade level. The results indicated that
there were no significant relationships between reading
achievement and total time spent viewing television or viewing
television videos. However there were significant relationships
between reading vocabulary scores and time spent viewing
television shows and movies and time interacting with television
video games for this group. The hypothesis was rejected.
(Table 1C)

TABLE 1C

RELATIONSHIPS BETWEEN STANFORD ACHIEVEMENT TEST READING

SCORES AND TIME INVOLVED WITH TELEVISION ACTIVITIES

VARIABLES	W.S.S.	COMPREH	VOCAB	TOTAL
TV SHOWS & MOVIES	.42	-.02	.62*	.43
TV VIDEOS	-.09	-.26	-.16	-.20
TV VIDEO GAMES	.28	.07	.79**	.46
TOTAL TELEVISION	.37	-.06	.51	.36

LEGEND: * $p < .05$

** $p < .01$

*** $p < .001$ N = 11

Hypothesis 1D

There will be no relationship between the time spent viewing television and the reading achievement of fourth grade students who are reading above grade level. The results indicated that there were no significant relationships between reading achievement and the total time spent viewing television or the components of time spent viewing television shows and movies or television videos. However, there were significant relationships between time spent interacting with television video games and all three reading scores measured at this age level. The hypothesis was rejected. (Table 1D)

42

TABLE 1D

RELATIONSHIPS BETWEEN STANFORD ACHIEVEMENT TEST READING

SCORES AND TIME INVOLVED WITH TELEVISION ACTIVITIES

VARIABLES		COMPREH	VOCAB	TOTAL
TV SHOWS & MOVIES		-.64	-.13	-.42
TV VIDEOS		-.08	-.24	-.24
TV VIDEO GAMES		.88*	.96**	.98**
TOTAL TELEVISION		-.58	-.13	-.41

LEGEND: *   p< .05

           **   p< .01

           *** p< .001   N = 5

Hypothesis 1E

There will be no relationship between the time spent viewing
television and the reading achievement of fifth grade students
who are reading above grade level. The results indicated that
there were no significant relationships between reading
achievement and the total time spent viewing television or the
components of time spent viewing television or interacting with
video games. However, there were significant relationships
between time spent viewing television videos and reading
vocabulary and total reading scores for this group. The
hypothesis was rejected. (Table 1E)

43

RELATIONSHIPS BETWEEN STANFORD ACHIEVEMENT TEST READING

SCORES AND TIME INVOLVED WITH TELEVISION ACTIVITIES

VARIABLES		COMPREH	VOCAB	TOTAL
TV SHOWS & MOVIES		-.37	-.34	-.35
TV VIDEOS		.54	.77*	.76*
TV VIDEO GAMES		-.06	-.18	-.14
TOTAL TELEVISION		-.20	-.16	-.17

LEGEND: *   p< .05

           **   p< .01

           ***   p< .001   N = 8

Hypothesis 2

There will be no relationship between the time spent doing homework and the reading achievement of first through fifth grade students who are reading above their grade level. The results indicated that there were negative relationships between time spent on reading assignments or oral drills and reading achievement scores for this group. The hypothesis was rejected. (Table 2)

44

TABLE 2

RELATIONSHIPS BETWEEN STANFORD ACHIEVEMENT TEST READING

SCORES AND TIME INVOLVED WITH HOMEWORK ACTIVITIES

VARIABLES		COMPREH		TOTAL
WRITTEN ASSIGNMENT		.20		.14
READING ASSIGNMENT		-.44**		-.50**
ORAL DRILLS		-.37*		-.39*
STUDYING (MENT.REHEAR)		.02		-.13
HOMEWORK TOTAL		-.06		-.16

LEGEND: *   p< .05

              **   p< .01

              ***   p< .001   N = 34

Hypothesis 2A

There will be no relationship between the time spent doing homework and the reading achievement of first grade students who are reading above grade level. The results indicated that there were significant negative relationships between total time spent on homework, specifically reading assignments, and scores in word study skills as well as total reading scores for this group. The hypothesis was rejected. (Table 2A)

45

TABLE 2A

RELATIONSHIPS BETWEEN STANFORD ACHIEVEMENT TEST READING

SCORES AND TIME INVOLVED WITH HOMEWORK ACTIVITIES

VARIABLES	W.S.S.	COMPREH	W.REC	TOTAL
WRITTEN ASSIGNMENT	.14	-.16	.02	.01
READING ASSIGNMENT	-.95*	-.69	-.71	-.92*
ORAL DRILLS	-.42	-.69	-.84	-.55
STUDYING (MENT.REHEAR)	-.57	.23	.03	-.37
HOMEWORK TOTAL	-.96*	-.63	-.83	-.93*

LEGEND: * $p < .05$

** $p < .01$

*** $p < .001$ N = 5

Hypothesis 2B

There will be no relationship between the time spent doing homework and the reading achievement of second grade students who are reading above grade level. The results indicated that there was a significant negative relationship between time spent on reading assignments and reading vocabulary scores for this group. The hypothesis was rejected. (Table 2B)

46

RELATIONSHIPS BETWEEN STANFORD ACHIEVEMENT TEST READING

SCORES AND TIME INVOLVED WITH HOMEWORK ACTIVITIES

VARIABLES	W.S.S	COMPREH	VOCAB	TOTAL
WRITTEN ASSIGNMENT	.25	-.14	-.14	-.18
READING ASSIGNMENT	-.14	.16	-.90*	-.31
ORAL DRILLS	.25	-.22	-.61	-.23
STUDYING (MENT.REHEAR)	-.26	.56	-.26	.23
HOMEWORK TOTAL	.03	.08	-.80	-.20

LEGEND: * $p < .05$

            ** $p < .01$

            *** $p < .001$ N = 5

Hypothesis 2C

There will be no relationship between the time spent doing
homework and the reading achievement of third grade students who
are reading above grade level. No students in this group
reported spending time on reading assignments during this week
but, the results indicated that there was a significant positive
relationship between time spent studying, or mentally rehearsing
subject matter for school, and reading comprehension scores for
this group. The hypothesis was rejected. (Table 2C)

47

TABLE 2C

RELATIONSHIPS BETWEEN STANFORD ACHIEVEMENT TEST READING

SCORES AND TIME INVOLVED WITH HOMEWORK ACTIVITIES

VARIABLES	W.S.S.	COMPREH	VOCAB	TOTAL
WRITTEN ASSIGNMENT	.22	.10	.29	.32
READING ASSIGNMENT				
ORAL DRILLS	-.17	-.20	-.46	-.34
STUDYING (MENT.REHEAR)	.26	.79**	.18	.41
HOMEWORK TOTAL	-.01	.01	-.26	-.09

LEGEND: * $p < .05$

        ** $p < .01$

       *** $p < .001$ $N = 11$

Hypothesis 2D

There will be no relationship between the time spent doing homework and the reading achievement of fourth grade students who are reading above grade level. The results indicated that there were no significant relationships. The hypothesis was accepted. (Table 2D)

BEST COPY AVAILABLE

48

TABLE 2D

RELATIONSHIPS BETWEEN STANFORD ACHIEVEMENT TEST READING

SCORES AND TIME INVOLVED WITH HOMEWORK ACTIVITIES

VARIABLES		COMPREH	VOCAB	TOTAL
WRITTEN ASSIGNMENT		.02	-.29	-.21
READING ASSIGNMENT		-.19	-.50	-.26
ORAL DRILLS		-.19	-.50	-.26
STUDYING (MENT.REHEAR)		-.06	-.49	-.30
HOMEWORK TOTAL		-.07	-.49	-.30

LEGEND: *   p< .05

        **   p< .01

        ***   p< .001   N = 5

Hypothesis 2E

There will be no relationship between the time spent doing
homework and the reading achievement of fifth grade students who
are reading above grade level. No students in this group
reported spending time on oral drills during this week but, the
results indicated that there were no significant relationships
between the variables that were able to be examined. The
hypothesis was accepted. (Table 2E)

49

TABLE 2E

RELATIONSHIPS BETWEEN STANFORD ACHIEVEMENT TEST READING

SCORES AND TIME INVOLVED WITH HOMEWORK ACTIVITIES

VARIABLES		COMPREH	VOCAB	TOTAL
WRITTEN ASSIGNMENT		-.22	-.41	-.37
READING ASSIGNMENT		.07	-.30	-.20
ORAL DRILLS				
STUDYING (MENT.REHEAR)		-.56	-.35	-.42
HOMEWORK TOTAL		-.38	-.52	-.50

LEGEND: *   p< .05

**   p< .01

***   p< .001   N = 8

Hypothesis 3

There will be no relationship between the time spent leisure reading and the reading achievement of first through fifth grade students who are reading above their grade level. The results indicated that there were no significant relationships. The hypothesis was accepted. (Table 3)

BEST COPY AVAILABLE
50

TABLE 3

RELATIONSHIPS BETWEEN STANFORD ACHIEVEMENT TEST READING

SCORES AND TIME INVOLVED WITH LEISURE READING ACTIVITIES

VARIABLES		COMPREH		TOTAL
READING ALOUD		-.12		-.12
READING SILENTLY		.21		.19
BEING READ TO		-.15		-.11
LEISURE READING TOTAL		.12		.13

LEGEND: *   p< .05

          **   p< .01

          ***   p< .001   N = 34

Hypothesis 3A

There will be no relationship between the time spent leisure reading and the reading achievement of first grade students who are reading above grade level. The results indicated that there were no significant relationships. The hypothesis was accepted. (Table 3A)

51

RELATIONSHIPS BETWEEN STANFORD ACHIEVEMENT TEST READING

SCORES AND TIME INVOLVED WITH LEISURE READING ACTIVITIES

VARIABLES	W.S.S	COMPREH	W.REC	TOTAL
READING ALOUD	.23	.26	.58	.41
READING SILENTLY	.65	.67	.41	.61
BEING READ TO	-.15	.28	.40	.08
LEISURE READING TOTAL	.09	.49	.59	.33

LEGEND: *   p< .05

          **   p< .01

          *** p< .001   N = 5

Hypothesis 3B

There will be no relationship between the time spent leisure reading and the reading achievement of second grade students who are reading above grade level. The results indicated that there was a significant relationship between reading aloud and reading comprehension scores for this group. The hypothesis was rejected. (Table 3B)

TABLE 3B

RELATIONSHIPS BETWEEN STANFORD ACHIEVEMENT TEST READING

SCORES AND TIME INVOLVED WITH LEISURE READING ACTIVITIES

VARIABLES	W.S.S	COMPREH	VOCAB	TOTAL
READING ALOUD	.00	.88*	-.17	.48
READING SILENTLY	.41	-.09	-.50	-.05
BEING READ TO	-.08	-.05	.49	-.01
LEISURE READING TOTAL	.47	.47	-.12	.28

LEGEND: *   p< .05

            **   p< .01

            ***   p< .001   N = 5

Hypothesis 3C

There will be no relationship between the time spent leisure reading and the reading achievement of third grade students who are reading above grade level. The results indicated that there were no significant relationships. The hypothesis was accepted. (Table 3C)

53

TABLE 3C

RELATIONSHIPS BETWEEN STANFORD ACHIEVEMENT TEST READING

SCORES AND TIME INVOLVED WITH LEISURE READING ACTIVITIES

VARIABLES	W.S.S	COMPREH	VOCAB	TOTAL
READING ALOUD	-.31	-.19	-.21	-.23
READING SILENTLY	-.08	.29	.19	.09
BEING READ TO	.27	.09	.58	.39
LEISURE READING TOTAL	-.09	.11	.41	.18

LEGEND: * $p < .05$

          ** $p < .01$

          *** $p < .001$ N = 11

Hypothesis 3D

There will be no relationship between the time spent leisure reading and the reading achievement of fourth grade students who are reading above grade level. The results indicated that there were significant relationships between all reading achievement scores and being read to, as well as reading aloud. The hypothesis was rejected. (Table 3D)

54

TABLE 3D

RELATIONSHIPS BETWEEN STANFORD ACHIEVEMENT TEST READING
SCORES AND TIME INVOLVED WITH LEISURE READING ACTIVITIES

VARIABLES		COMPREH	VOCAB	TOTAL
READING ALOUD		.88*	.96**	.98**
READING SILENTLY		.21	-.06	.19
BEING READ TO		.88*	.96**	.98**
LEISURE READING TOTAL		.29	.03	.28

LEGEND: *   p< .05

**   p< .01

***   p< .001   N = 5

Hypothesis 3E

There will be no relationship between the time spent leisure reading and the reading achievement of fifth grade students who are reading above grade level. The results indicated that there were no significant relationships. The hypothesis was accepted. (Table 3E)

TABLE 3E

RELATIONSHIPS BETWEEN STANFORD ACHIEVEMENT TEST READING

SCORES AND TIME INVOLVED WITH LEISURE READING ACTIVITIES

VARIABLES		COMPREH	VOCAB	TOTAL
READING ALOUD		-.36	-.35	-.35
READING SILENTLY		-.33	-.29	-.30
BEING READ TO		.63	.59	.61
LEISURE READING TOTAL		-.30	-.25	-.27

LEGEND:　　*　　p< .05

　　　　　　**　　p< .01

　　　　　　***　p< .001　　　　　　N = 8

Hypothesis 4

There will be no relationship between the time spent after school with a non-parental caregiver and the reading achievement of first through fifth grade students who are reading above their grade level. The results indicated that there was a moderate relationship between students' reading comprehension and total reading scores and time spent in the school's extended daycare program for this group. The hypothesis was rejected. (Table 4)

TABLE 4

RELATIONSHIPS BETWEEN STANFORD ACHIEVEMENT TEST READING

SCORES AND TIME AFTER SCHOOL WITH A NON-PARENTAL CAREGIVER

VARIABLES		COMPREH		TOTAL
EXTENDED DAYCARE PROGRAM		.37*		.45**
SITTER (NOT FAMILY)		-.15		-.11
FAMILY MEMBER (NOT PARENT)		-.02		.02
UNSUPERVISED		.03		-.09
AFTER SCHOOL CARE TOTAL		.21		.30

LEGEND: * $p < .05$

   ** $p < .01$

   *** $p < .001$ N = 34

Hypothesis 4A

There will be no relationship between the time spent after
school with a non-parental caregiver and the reading achievement
of first grade students who are reading above grade level. The
data received for this group of first graders indicated that
these students were receiving care from a parent after school.
Therefore this hypothesis was not able to be tested.

Hypothesis 4B

There will be no relationship between the time spent after

57

school with a non-parental caregiver and the reading achievement
of second grade students who are reading above grade level. No
students in this group reported time spent unsupervised during
this week, but the results indicated that there was a significant
relationship between reading comprehension scores and time spent
after school with a family member who is not a parent. The
hypothesis was rejected.   (Table 4B)

TABLE 4B

RELATIONSHIPS BETWEEN STANFORD ACHIEVEMENT TEST READING
SCORES AND TIME AFTER SCHOOL WITH A NON-PARENTAL CAREGIVER

VARIABLES	W.S.S	COMPREH	VOCAB	TOTAL
EXTENDED DAYCARE PROGRAM	-.36	-.09	.16	-.29
SITTER (NOT FAMILY)	.40	-.21	-.46	-.16
FAMILY MEMBER (NOT PARENT)	.00	.88*	-.17	.48
UNSUPERVISED				
AFTER SCHOOL CARE TOTAL	.06	.83	-.41	.30

LEGEND: *   p< .05

        **   p< .01

        *** p< .001   N = 5

Hypothesis 4C

There will be no relationship between the time spent after
school with a non-parental caregiver and the reading achievement

of third grade students who are reading above grade level. No
students in this group reported spending time supervised by a
sitter, who was not a family member during this week, but the
results indicated that there was a significant relationship
between word study skills and time spent in the school's extended
daycare program for this group. The hypothesis was rejected.
(Table 4C)

TABLE 4C

RELATIONSHIPS BETWEEN STANFORD ACHIEVEMENT TEST READING

SCORES AND TIME AFTER SCHOOL WITH A NON-PARENTAL CAREGIVER

VARIABLES	W.S.S	COMPREH	VOCAB	TOTAL
EXTENDED DAYCARE PROGRAM	.71*	.21	.10	.46
SITTER (NOT FAMILY)				
FAMILY MEMBER (NOT PARENT)	-.03	-.14	-.25	-.14
UNSUPERVISED	-.44	.11	.04	-.16
AFTER SCHOOL CARE TOTAL	.42	.08	-.11	.21

LEGEND: *   p< .05

　　　　　 **   p< .01

　　　　　 *** p< .001   N = 11

Hypothesis 4D

There will be no relationship between the time spent after
school with a non-parental caregiver and the reading achievement

59

of fourth grade students who are reading above grade level. No
students in this group reported spending time unsupervised or
supervised by a sitter that was not a family member during this
week, but the results indicated that there were significant
relationships between reading achievement scores and time spent
in the school's extended daycare program for this group. The
hypothesis was rejected.   (Table 4D)

TABLE 4D

RELATIONSHIPS BETWEEN STANFORD ACHIEVEMENT TEST READING

SCORES AND TIME AFTER SCHOOL WITH A NON-PARENTAL CAREGIVER

VARIABLES		COMPREH	VOCAB	TOTAL
EXTENDED DAYCARE PROGRAM		.88*	.96**	.98**
SITTER (NOT FAMILY)				
FAMILY MEMBER (NOT PARENT)		-.58	-.25	-.46
UNSUPERVISED				
AFTER SCHOOL CARE TOTAL		.08	.48	.28

LEGEND: * $p < .05$

               ** $p < .01$

               *** $p < .001$ $N = 5$

Hypothesis 4E

    There will be no relationship between the time spent after

60

school with a non-parental caregiver and the reading achievement
of fifth grade students who are reading above grade level. The
data reported the only after school care alternative received by
students in this group was through the school's extended daycare
program during this week, however the results indicated that
there were no significant relationships between time spent in
this program and reading achievement scores. The hypothesis was
accepted. (Table 4E)

TABLE 4E

RELATIONSHIPS BETWEEN STANFORD ACHIEVEMENT TEST READING

SCORES AND TIME AFTER SCHOOL WITH A NON-PARENTAL CAREGIVER

VARIABLES		COMPREH	VOCAB	TOTAL
EXTENDED DAYCARE PROGRAM		.53	.59	.59
SITTER (NOT FAMILY)				
FAMILY MEMBER (NOT PARENT)				
UNSUPERVISED				
AFTER SCHOOL CARE TOTAL		.53	.59	.59

LEGEND: *   p< .05

          **   p< .01

          ***   p< .001   N = 8

61

Hypothesis 5

There will be no relationship between the bedtime and the reading achievement of first through fifth grade students who are reading above their grade level. The results indicated that there were no significant relationships. The hypothesis was accepted. (Table 5)

TABLE 5

RELATIONSHIPS BETWEEN STANFORD ACHIEVEMENT TEST

READING SCORES AND BEDTIME

VARIABLES		COMPREH		TOTAL
BEDTIME		.28		.34

LEGEND: * $p < .05$

   ** $p < .01$

   *** $p < .001$ N = 34

Hypothesis 5A

There will be no relationship between the bedtime and the reading achievement of first grade students who are reading above grade level. The results indicated that there were no significant relationships. The hypothesis was accepted. (Table 5A)

62

73

TABLE 5A

RELATIONSHIPS BETWEEN STANFORD ACHIEVEMENT TEST

READING SCORES AND BEDTIME

VARIABLES	W.S.S	COMPREH	W.REC	TOTAL
BEDTIME	.19	-.60	-.15	.10

LEGEND: *   p< .05

        **   p< .01

        *** p< .001   N = 5

Hypothesis 5B

There will be no relationship between the bedtime and the
reading achievement of second grade students who are reading
above grade level. The results indicated that there was a
significant relationship between reading vocabulary scores and a
later bedtime for this group. The hypothesis was rejected.
(Table 5B)

TABLE 5B

RELATIONSHIPS BETWEEN STANFORD ACHIEVEMENT TEST

READING SCORES AND BEDTIME

VARIABLES	W.S.S	COMPREH	VOCAB	TOTAL
BEDTIME	.18	-.25	.88*	.29

LEGEND: *   p< .05

          **   p< .01

          ***   p< .001   N = 5

Hypothesis 5C

There will be no relationship between the bedtime and the reading achievement of third grade students who are reading above grade level. The results indicated that there were no significant relationships. The hypothesis was accepted. (Table 5C)

64

TABLE 5C

RELATIONSHIPS BETWEEN STANFORD ACHIEVEMENT TEST

READING SCORES AND BEDTIME

VARIABLES	W.S.S	COMPREH	VOCAB	TOTAL
BEDTIME	-.42	-.10	-.11	-.22

LEGEND: *   p< .05

           **   p< .01

           ***   p< .001   N = 11

Hypothesis 5D

There will be no relationship between the bedtime and the reading achievement of fourth grade students who are reading above grade level. The results indicated that there were no significant relationships. The hypothesis was accepted. (Table 5D)

TABLE 5D

RELATIONSHIPS BETWEEN STANFORD ACHIEVEMENT TEST

READING SCORES AND BEDTIME

VARIABLES		COMPREH	VOCAB	TOTAL
BEDTIME		.68	.62	.60

LEGEND: *   p< .05

      **   p< .01

      ***   p< .001   N = 5

Hypothesis 5E

    There will be no relationship between the bedtime and the reading achievement of fifth grade students who are reading above grade level. The results indicated that there were no significant relationships. The hypothesis was accepted. (Table 5E)

TABLE 5E

RELATIONSHIPS BETWEEN STANFORD ACHIEVEMENT TEST

READING SCORES AND BEDTIME

VARIABLES		COMPREH	VOCAB	TOTAL
BEDTIME		-.41	-.45	-.49

LEGEND: *   p< .05

         **   p< .01

         ***   p< .001   N = 8

SUMMARY OF RESULTS

This study investigated a selected group of first through fifth grade students for the time they spent on five activities in the home environment and the relationship between those times and reading achievement scores on the Stanford Achievement Test. The results indicated that for each activity, there was a significant relationship between the activity, or an aspect of that activity, and the reading achievement scores on the Stanford Achievement Test for at least one of the groups tested.

There were no significant relationships between the total time spent involved with television and reading achievement for any of the groups tested. However, time spent playing television video games had significant positive correlations with reading achievement scores for second, third and fourth grade groups. The correlations were highest for the second and fourth graders.

67

And there was also a low correlation indicated for the first through fifth grade group as a whole. Second and fifth grade groups showed positive correlations between reading achievement scores and time spent watching television videos. The correlations were highest for the second graders. The third grade group showed a positive correlation between time spent viewing television shows and movies and reading achievement scores.

The results indicated there were moderate negative relationships between time spent on oral drills or reading assignments and reading achievement scores for the first through fifth grade group as a whole. Time spent on reading assignments and reading achievement scores showed significant negative correlations for these first and second grade groups. The first grade group also demonstrated a negative relationship between reading achievement scores and total time spent on homework. The only positive relationship was a correlation between reading comprehension scores and time spent studying or mentally rehearsing subject matter for school, for the third grade group.

The results showed significant relationships between reading achievement scores and time spent leisure reading for the second and fourth grade groups in this study. Time spent reading aloud had a positive correlation with reading comprehension scores for the second grade group. Both time spent reading aloud and time being read to showed positive correlations with all reading scores tested at the fourth grade level for this group.

68

The results indicated a moderate positive correlation between time spent in the school's extended daycare program and reading achievement scores for the first through fifth grade group. The third and fourth grade groups also showed this correlation. The correlation was stronger for the fourth grade group. The second grade group did not show a correlation between reading achievement scores and time spent in the extended daycare, but there was a positive correlation between their reading comprehension scores and time spent with a sitter who was a family member. The first grade group reported no time spent unsupervised or with a caregiver other than a parent, therefore, the hypothesis was not able to be tested for this group. There were no significant relationships between reading achievement scores and after school care for the fifth grade group.

The only significant relationship between bedtime and reading achievement scores was evident for the second grade group, which showed a positive correlation between reading vocabulary scores and a later bedtime for these students.

69

80

DISCUSSION

The purpose of this study was to collect data from parents
of a specific student population, to describe that population and
to explore the relationships between reading achievement and five
variables in the home environments' of those students.   The group
consisted of thirty-four first through fifth grade students who
met the criteria for inclusion in the study, as described in
chapter three.   The mean SAT total reading score for the group
was a grade equivalency of 6.6 (sixth grade, sixth month).   The
mean score for the SAT reading sub-test on reading comprehension
was 7.1 (seventh grade, first month).   First, the results for the
first through fifth grade group, as a whole, will be discussed.
Then the results for each grade will be discussed.

These thirty-four students spent little time involved in
television activities.   The mean time for total time spent
involved in television activities for the entire group was
ninety-seven minutes for the five day period of the study.   This
averages out to less than twenty minutes of television each day
of the study.   The majority of this time was spent watching
television shows and movies, which had a mean time of eighty-two
minutes.   This preference in television usage was the same for
all the groups at each grade level.   Of the other television
activities, time involved with television video games was the
lowest mean time, averaging to less than a minute a day.   But
there was a significant relationship between this variable and

70

total reading scores for the first through fifth grade group.
There were no relationships between any of the other television
activities and reading achievement scores when analyzing the
entire group. The findings of this study do not support Bachen's
1982 study, which found negative correlations between television
viewing and reading achievement for second, third and sixth
graders. None of the students in this study watched six or even
four hours of television a day, so it is not possible to support
or refute findings about the effects of excessive television
viewing by Neuman in 1986 and the National Assessments of
Educational Progress (NAEP) in 1980 and 1984.

Very little time was spent on homework activities during
this five day period. The total mean time for homework was
twenty-six minutes. Written assignments averaged about half of
that time, and the other three homework activities shared the
remaining time. However, use of homework time changed with each
grade level as will be described in subsequent pages. There were
moderate, but negative relationships for reading achievement and
two of the homework activities for the large group. Time spent
with oral drills and time spent on reading assignments correlated
negatively with reading comprehension and total reading scores.
This relationship reflects the types of homework activities
pursued by younger students who, although they are reading above
their own grade level, are not necessarily reading at the levels
of above average readers in higher grades. Earlier studies by
Neuman, 1986, and the NAEP in 1980 and 1984, report positive

relationships between homework and reading achievement for older students, but this study does not support those findings except in the case of the third grade group, which will be discussed in more detail in a later section.

The mean time for leisure reading activities during the study was a meager twenty-two minutes. Most of the time represented time spent reading silently. As for homework activities, leisure reading choices changed with each grade level, which will be discussed in the following pages given for each grade level. But for the first through fifth grade group, there were no significant relationships between reading achievement scores and the time these students spent on leisure reading activities during the study. The findings for this group lend support for Ward's 1983 study that found students read less than one hour a day, if at all. Relationships between reading achievement and leisure reading were found for specific grade groups in this study and will be discussed in those sections.

The mean time these students spent after school with a caregiver, other than a parent, was forty-four minutes for the five day period of the study. Most of the time was split about equally between time in the school's extended daycare program and time supervised by another family member. The other two types of after school care, a sitter who was not a family member or no adult supervision, were not chosen very often. Time spent in the school's extended care program during the study, was the only type of after school care that was related to reading

72

comprehension and total reading scores for the large group. This
was a moderate positive correlation that may reflect on the
quality of the daycare program or may be related to other
factors. This study was not longitudinal and cannot support or
refute the findings of Pinkett's 1985 study or Milne's 1986
study, which examined long term effects of daycare and mother's
employment on reading achievement and found a negative
relationships for both.

The final variable, bedtime, showed no relationship to the
reading achievement scores of the first through fifth grade
group. The mean bedtime during the study, for these thirty-four
students, was 9:04. This finding supports the finding of
Roderick and Jackson's 1985 study, which found most gifted
students in their study went to bed between 9:00 and 10:00pm,
compared to their classmates who tended to go to bed later.

As might be expected, none of these above average readers
fell within Chall's first stage of reading development,
Prereading. And when taking into consideration their reading
level as opposed to their classroom grade, even the first grader
group did not fall within the second stage, Initial Reading or
Decoding. The first grade group was already reading at a level
defined as stage two. The remaining groups, grades two through
five could be described as falling within Chall's fourth stage,
although the fifth grade group seemed to be passing beyond that
level and perhaps entering Chall's fifth stage. A brief
description of Chall's third through fifth stages follows.

73

3. Stage 2, Confirmation, Fluency, and Ungluing from Print, grades two and three. Consolidation of reading skills and word recognition.

4. Stage 3, Learning the New, grades four through eight. Using reading as a tool for acquiring knowledge, and insights into values, feelings and attitudes.

5. Stage 4, Multiple Viewpoints, grades nine through twelve. Requires complex language and cognitive abilities, comprehension of advanced content oriented texts and multiple viewpoints.

No obvious patterns appear to differentiate groups who fall within different stages of Chall's reading development other than there are more correlations among the second through fourth grade groups which belong in Chall's stage three, than there are in the first grade group within stage two or the fifth grade group which may be passing into stage four. These correlations are discussed in detail in the following sections.

FIRST GRADE

The first grade group consisted of five students whose mean SAT total reading score was a grade equivalency of 3.1 (third grade, first month). Their mean scores for SAT reading sub-tests were: word study skills (W.S.S.) 2.8, word recognition 3.5, and reading comprehension 3.9. These students seemed to fall within Chall's stage two when taking into consideration their reading level as opposed to their classroom grade.

There were no relationships between reading achievement and

74

time spent watching television for this group, perhaps, because

they spent very little time involved with television activities.

The mean times for this group were eighty minutes watching

television shows and movies, and sixteen minutes watching videos

during the five days of the study. These students did not spend

time involved with television video games.

There were significant relationships between reading

achievement and time spent on homework activities, although the

mean time spent by students doing homework in this five day

period was less than thirty minutes. Surprisingly, these

relationships were negative. One explanation might be found by

examining the type of homework activity that students spent the

most time on, which turns out to be reading assignments. And the

data indicated negative relationships between total reading

scores and word study skills for time spent on reading

assignments, but not time spent on other specific types of

homework activities. Thus, students who take more time doing

reading assignments may do so because they have a lower reading

level and a slower reading speed.

This group spent even less time leisure reading during the

five days of the study. The mean time for total time spent

leisure reading was only nineteen minutes, which would average

out to less than four minutes a day. There were no relationships

between the students' reading achievement scores and the time

they spent leisure reading after school. However, there was a

significant correlation ($r = 88*$) between the amount of time

75

students were read to and the amount of time they read aloud. The findings of this study only partially supported the findings of Meyer's study of kindergartners and first grade students, which found correlations not only between the frequency the parents read aloud to their children and their children read alone, but also relationships between those variables and the reading achievement of the children in their study.

The last two activities investigated were time spent after school with a caregiver other than a parent and bedtime. The group did not report spending time after school with any caregiver other than a parent during the period of the study, therefore, hypothesis 4A was not able to be tested. Finally, the mean bedtime for these students, during this period, was six minutes past eight. Not surprisingly, this was the group who reported the earliest mean bedtime. There was no significant relationship between this variable and reading achievement for these students.

SECOND GRADE

The second grade group consisted of five students whose mean SAT total reading score was a grade equivalency of 5.5 (fifth grade, fifth month). Their mean scores for SAT reading sub-tests were: word study skills (W.S.S.) 7.3, reading vocabulary 6.6, and reading comprehension 5.1. These students seemed to fall within Chall's stage three when taking into consideration their reading level as opposed to their classroom grade. There is a

significant relationship between the reading achievement scores of this group and each activity investigated by the study.

These students spent a mean time of sixty-nine minutes involved with television activities during the study. The majority of that time was spent watching television shows or movies, but there was no significant relationship between time spent in this activity and reading achievement. However, time spent watching videos and playing television video games correlated with reading vocabulary scores. These results do not support Bachen's findings in a 1982 study of second, third and sixth grade students. Bachen found a negative relationship between reading achievement and television viewing for those groups.

There was also a relationship between reading vocabulary scores and the time this group spent on reading assignments during this five day period, but the correlation was negative. Again, as for the first grade group, this correlation may be due to slower reading of reading assignments by lower level readers. There were no correlations between reading achievement and time spent on any other type of homework activity for this group. These students spent a mean time of twenty minutes on homework during this period, about half of which was accorded to reading assignments.

Similarly, time spent on leisure reading activities averaged to twenty-one minutes during the study, for this group. Time spent reading aloud was correlated with reading comprehension

scores even though it was the leisure reading activity engaged in
the least amount of time by these students. There were no other
significant relationships between leisure reading and reading
achievement for this group.

There was also a relationship between reading comprehension
scores and time spent with caregiver who was a family member, but
not a parent. Perhaps this correlation reflected the significant
relationship ($r = 1.00***$) between the time spent reading aloud
and time spent after school with a family member caregiver. The
mean time for this type of after school care was forty-six
minutes. The mean times for non-familial sitter care and
extended daycare were just under thirty minutes each. These
students did not spend any time unsupervised after school during
the period of the study, but they did have the highest mean time
after school without a parent. There were no other relationships
between reading achievement and alternatives to parental after
school care.

Lastly, there was a relationship between reading vocabulary
scores and a later bedtime during the period of the study. The
students in this group had a mean bedtime of approximately 9:00
for the five day period. This is the only group in the study
that a relationship is indicated for bedtime and reading
achievement.

THIRD GRADE

The third grade group consisted of eleven students whose

78

89

mean SAT total reading score was a grade equivalency of 5.9
(fifth grade, ninth month). Their mean scores for SAT reading
sub-tests were: word study skills (W.S.S.) 5.4, reading
vocabulary 6.0, and reading comprehension 6.7. These students
seemed to fall within Chall's stage three when taking into
consideration their reading level as opposed to their classroom
grade.

These students spent a mean time of fifty seven minutes
involved with television activities during the study. This was
the lowest mean time of all the groups. The majority of that
time was spent watching television shows or movies. There was no
significant relationship between time spent in this watching
videos and reading achievement. However, time spent watching
television shows and movies, and playing television video games
correlated with reading vocabulary scores. Again, these results
do not support Bachen's findings in a 1982 study of second, third
and sixth grade students' reading achievement and television
viewing.

These students spent a mean time of twenty-two minutes on
homework during the five day period. This group did not spend
any time on reading assignments during the study. The majority
of the time was spent on written assignments, but no significant
relationships were found for time spent on written assignments
and reading achievement scores. However, the only positive
correlation between reading achievement and time spent doing
homework was found in this third grade group. The data indicated

79

a positive correlation between reading comprehension scores and time spent studying or mentally rehearsing subject matter for school.

This group spent the least amount of time on leisure reading during the study, with a mean time of seventeen minutes. There were no relationships between reading achievement and time spent leisure reading for these students.

The data for the third grade group indicated a relationship between reading achievement and one of the types of after school care investigated by the study. There was a positive correlation between word study skills and time spent in the school's extended daycare program, unlike the findings of a 1988 study by Vandell and Corasaniti. The third graders in their study who spent time in daycare programs scored lower on tests, than did their counterparts experiencing other types of care after school. However, the mean time for the third graders in this study spent only a mean time of seventeen minutes in this type of care, which could account for a different outcome than Vandell and Corasaniti's results. Or the daycare programs could be qualitatively different. The mean time for all types of after school care investigated by the study was thirty-five minutes, which seems to indicate that the students are under their parents supervision for most of the time after school. This supports Vandell and Corasaniti's findings that the majority of third graders in their study returned home to their mothers after school. The alternatives to mother care after school found to be

80

experienced by Vandell and Corasaniti's students were also experienced by the third graders in this study, except supervision by a sitter who was not a family member.

Finally, the students in this group had a mean bedtime of approximately 9:00 for the five day period of the study. There was no relationship between this variable and reading achievement for these students.

FOURTH GRADE

The fourth grade group consisted of five students whose mean SAT total reading score was a grade equivalency of 8.4 (eighth grade, fourth month). Their mean scores for SAT reading sub-tests were: reading vocabulary 8.1, and reading comprehension 8.7. These students seemed to fall within Chall's stage three when taking into consideration their reading level as opposed to their classroom grade.

Like the second and third grade groups, the fourth grade reading vocabulary scores were correlated to the amount of time spent playing television video games, as were the reading total and reading comprehension scores. These students had the highest mean time, 167 minutes, involved in television activities among all the groups tested. Although there was a relationship between time spent playing video games and all SAT reading scores for this group, most of their time spent with television involved watching television shows and movies.

These students also spent the most time on homework

81

activities at a mean time of forty-nine minutes during the period of the study. But there were no significant correlations between these activities and reading achievement scores. The majority of homework time went to written assignments.

Thirdly, this group reported spending more time on leisure reading after school, than any of the other groups. This mean time was thirty-two minutes for the five day period. Most of that time was spent in silent reading, but the significant relationships were found between being read to, reading aloud, and all SAT reading achievement scores tested at this age level. Here we see support for Meyer's 1990 study, which also found correlations between reading aloud, reading alone and test scores for kindergartners and first grade groups.

There was a mean time of fifty-three minutes spent after school with a family member other than a parent and twenty-four minutes in the school's extended daycare program for these students. No significant relationships existed for time spent with a family member, but time spent in the extended care program was related to higher reading achievement scores on the SAT. When analyzing this result, the researcher found significant correlations (r = 1.00***) between time spent reading aloud, time spent being read to, and time spent in the after school daycare program, as well as time involved with television video games.

This group had the latest mean bedtime during the period of the study at 9:35. The data indicated no significant relationships between this variable and reading achievement

82

scores for these students.

FIFTH GRADE

The fifth grade group consisted of eight students whose mean
SAT total reading score was a grade equivalency of 9.1 (ninth
grade, first month). Their mean scores for SAT reading sub-tests
were: reading vocabulary 8.1, and reading comprehension 9.9.
These students seemed to passing out of Chall's stage three when
taking into consideration their reading level as opposed to their
classroom grade.

There is a significant relationship between reading
achievement and only one activity investigated by the study for
this group. That activity is involvement with television videos.
There are correlations between time spent watching videos and
vocabulary and total reading scores for these students, though
the mean time for watching videos is as low as for playing video
games, about five minutes each. This group had a mean time of
102 minutes watching television shows and movies, but there was
no significant relationship between this variable and reading
achievement.

The fifth grade group had the lowest mean time for homework
activities, seventeen minutes, for the five day period of the
study. These students reported no time on oral drills. The
majority of their homework time was spent on written assignments.
Their mean time for leisure reading activities was twenty-six
minutes, with almost all the time spent on silent reading. The

83

mean time for the extended daycare program was twenty-eight
minutes, which was the only after school care these students
experienced other than supervision by a parent. The mean bedtime
for this group was 9:25. None of these variables showed a
significant correlation to the reading achievement scores of
these students.

CONCLUSIONS

The results of this study suggest that there are no negative
effects on the reading achievement of these students for the
limited amount of involvement they have with television
activities. The fact that the correlations that were found were
positive would suggest that a little television is a good thing.
Neither did the data indicated relationships between time spent
involved in television activities and homework, leisure reading,
after school care situations or bedtime, that might demonstrate
displacement or correlations among these variables leading to any
indirect effects on reading achievement. This suggests that
limited television does not displace homework, leisure reading or
sleep, and that the after school care situations of these
students did not promote excessive television viewing.

Unexpectedly, most of the correlations between reading
achievement and time doing homework were negative. The one
positive relationship was between reading comprehension scores
and time spent studying for the third grade group. The moderate
negative correlations between oral drills and reading achievement

84

scores can be explained by the use of homework time shifting from
more oral drilling in the earlier grades to none by fifth grade.
The negative relationships between reading achievement and time
spent on reading assignments may be due to slower reading of
assignments by lower level readers. However, these students did
not seem to spend much time, in total, on homework. It would be
interesting to know how much time their classmates were spending
during the same period. Perhaps, it being the end of the year, a
lot of homework was not assigned.

These students did not engage in much leisure reading, but
there were positive relationships between leisure reading and
reading achievement scores for two groups. The activities that
correlated with reading achievement were being read to, fourth
grade, and reading aloud, second and fourth grades. This
suggests that an interactive experience in leisure reading may be
beneficial to children's reading achievement. Also, it may not
be necessary for parents to have large blocks of time every day
to pursue this activity with their children.

The time these students spent in the care of someone beside
their parents was minimal. However, the limited amount of time
spent with other caregivers showed no ill effects, rather there
were positive correlations for time spent with another family
member or time spent in the school's extended care program and
reading achievement scores. This suggests that short or
occasional times spent with alternate caregivers after school can
be a positive experience, especially considering the correlations

85

between these after school care situations and leisure reading for these groups.

Without knowing the exact time these students rose each day, it is difficult to say with a certainty whether or not they were getting adequate sleep according to guidelines suggested by The Mayo Clinic Family Health Book. The mean bedtime for the entire group was 9:04, but as might be expected, bedtimes tended to move from earlier to later according to the age of the children. The school day started at 8:00am for these students. If they slept in until 7:00am, each grade on average, would get the recommended amount of sleep. If they rose earlier, they may not have been getting the suggested eleven hours for six year olds declining gradually to about nine hours by age twelve. Regardless, only the second grade group's data indicated a correlation between bedtime and reading achievement in the reading vocabulary scores and it was a positive correlation with a later bedtime. This suggests that the students were probably getting enough sleep on a regular basis to not impair their reading abilities.

LIMITATIONS

The greatest limitation to this study is the low number of participants. A second limitation is the size and homogenous character of the population from which the participants were drawn. A third limitation is the brief period of the study. A fourth limitation in exploring effects of home environment on reading achievement across stages of reading development is

86

grouping students according to grade level, rather than reading ability.

IMPLICATIONS

The information obtained in this investigation and the limitations of this study suggest several possibilities for future research. Study could be undertaken with a group which met the same qualifications as the students in this study, yet overcame the first two limitations named above. Data could be collected for a longer time period, or at several time periods throughout the year for a better activity log of the students' home environment. Or, a longitudinal study could be undertaken to explore the long term effects of these factors in the home environment. Also, students of different reading abilities could be investigated in order to describe other populations and explore relationships both between home environment and reading achievement, and relationships between these variables across groups. Finally, students could be grouped by reading achievement scores, and regardless of grade level, to better investigate effects of home environment on reading achievement across stages of reading development.

BIBLIOGRAPHY

Bachen, Christine M., Melinda C. Hornby, Donald F. Roberts, P.F.
Hernandez-Rames. <u>Television Viewing Behavior and the
Development of Reading Skills: Survey Evidence</u>. Paper
presented at the Annual Meeting of the American Educational
Research Association, New York, NY, 19-23 March 1982. ERIC,
ED214150.

Chall, Jeanne S. "Reading and Early Childhood Education : The
Critical Issues. Special Report : Early Childhood
Education," <u>Principal</u> 66 (May 1987): 6-9.

Covington, Veronica. <u>Leisure Time Reading Versus Television
Viewing Time for Seventh Grade Reading Students</u>. Research
Study for ASC579, Sam Houston State University, 1985. ERIC,
ED275989.

Hargreaves, Margaret Barnwell. <u>Learning Under Stress: Children
of Single Parents and the Schools</u>. Metuchen, N.J. & London:
Women's Action Alliance and The Scarecrow Press, Inc., 1991.

Hornik, Robert. "Out-of-School Television and Schooling:
Hypothesis and Methods," <u>Review of Ed. Research</u> 51:2 (Summer
1981): 193-214.

Larson, David E., M.D., ed. <u>Mayo Clinic Family Health Book</u>. New
York: William Morrow and Company, Inc., 1990.

88

Messaris, Paul, and Robert C. Hornik. "Work Status, Television Exposure, and Education Outcomes." Chap. in <u>Children of Working Parents : Experiences and Outcomes</u>, eds. Cheryl D. Hayes and Sheila B. Kamerman, 44-69. Washington, DC: National Academy Press 1983. ERIC, ED231727.

Meyer, Linda A., Hastings, and Linn. <u>Home Support for Emerging Literacy: What Parents Do that Correlates with Early Reading Achievement</u>. Urbana, IL: Center for the Study of Reading 1990. ERIC, ED325830.

Milne, Ann M., David E. Myers, Alvin S. Rosenthal, and Alan Ginsburg. <u>Single Parents, Working Mothers and the Educational Achievement of Elementary School Age Children</u>. Washington, DC: Department of Education, 1983. ERIC, ED234092.

Milne, Ann M., David E. Myers, Alvin S. Rosenthal, and Alan Ginsburg. "Single Parents, Working Mothers and the Educational Achievement of School Children," <u>Sociology of Education</u>, 59 July 1986, 125-139.

Morgan, Michael. <u>More than a Simple Association: Conditional Patterns of Television and Achievement</u>. Paper presented at the Annual Meeting of the American Educational Research Association, New York, NY, March 1982. ERIC, ED 217864.

Neuman, Susan B. <u>Television and Reading: A Research Synthesis</u>. Paper presented at the International Television Studies Conference, London, England, 10-12 July 1986. ERIC, ED294532.

100

Patterson, Annette. "Leisure Reading and the Year Eleven
     Student," English in Australia 75 (March 1986): 40-48.

Pinkett, Kathleen E.L. Preschool Attendance and Type of
     Experience in Advantaged Children: Long-Term Effects by
     Third Grade. Paper presented at the Annual Meeting for the
     Education of Young Children, New Orleans, LA, 14-17 November
     1985. ERIC, ED265942.

The Reading Report Card: Progress Toward Excellence in Our
     Schools. Trends in Reading over Four National
     Assessments, 1971-1984. Princeton, NJ: National
     Assessment of Educational Progress, 1985. ERIC,
     ED264550.

Roderick, Juanita and Patricia Jackson. TV Viewing Habits,
     Family Rules, and Reading Grades of Gifted and Nongifted
     Middle School Students. Paper presented at the Conference
     for the Ohio Association for Gifted Children, March 1985.
     ERIC, ED264050.

Selnow, Gary W. and Hal Reynolds. "Some Opportunity Costs of
     Television Viewing," Journal of Broadcasting, 28 (Summer
     1984): 315-322.

Tassopulos, Joan M. The Relationship of Maternal Inputs and SES
     to Reading Achievement in Black Families. Paper presented
     at the Annual Meeting of the American Educational Research
     Association, New York, NY, 19-23 March 1982. ERIC,
     ED214135.

90

Vandell, Deborah Lowe, and Mary Anne Corasoniti. "The
Relationship between Third Graders After-School Care and
Social, Academic, and Emotional Functioning," Child
Development, 59:4 (1988): 868-875.

Ward, Barbara, Nancy A Mead, and Donald T. Searls. The
Relationship of Students' Academic Achievement to Television
Watching, Leisure Time Reading and Homework. Washington,
DC: National Institute of Education, 1983. ERIC, ED236249.

West, Jerry, Elvie G. Hausken, Kathryn Chandler, and Mary
Collins. Home Activities of 3- to 8-year-olds. Statistics
in Brief. Washington, DC: National Center for Education
Statistics, 1992. ERIC, ED341513.

Wigfield, Allan and Steven R. Asher. Social and Motivational
Influences on Reading. Urbana, IL: Center for the Study of
Reading, 1983. ERIC, ED235465.

I am willing to complete the after school activities survey for

_____ .
                (child's name)
I also give my permission for Jenny Wynstra to see the Stanford
Achievement Reading Scores of my child. I understand that she
will use this information in her published or unpublished
Master's thesis, but at no time will the identity or scores of
any individual involved in the study, be revealed.

_____   _____
              (parent's name)   (date)

I am not interested in being part of the study.

_____
              (parent's name)

Number of Students _____   Gender: Female ____

Racial Origin: Asian ____   Male ____

              Black ____   Household: 1 Parent ____

              Hispanic ____   2 Parent ____

              White ____   Grade _____

              Multi-racial ____   Teacher _____

92

CHRISTIAN LIFE SCHOOL & DAY CARE
A CHRISTIAN EXPERIENCE IN EDUCATION

March 17, 1994

Dr. Bob Schoonover
Cumberland College
Williamsburg, Kentucky

Dear Dr. Schoonover,

This letter is to inform you that I have given my permission to Ms. Jenny Wynstra to involve the students of Christian Life School in her upcoming project, and I give full approval to her project proposal as it has been outlined to me. If I can be of any assistance, or if you need any more information, please do not hesitate to call.

Sincerely,

Paul Blount

Paul D. Blount
Administrator

93

APPENDIX C

STUDENT'S GRADE _____

DATES _____

PLEASE READ THE DIRECTIONS ON THE REVERSE SIDE.

INDICATE TIME IN HOURS AND\OR MINUTES.

(SEE SAMPLE COLUMN)

ACTIVITIES	TYPE	SAMPLE	MONDAY	TUESDAY	WEDNESDAY	THURSDAY	FRIDAY
AFTER SCHOOL CARE	Extended Daycare						
	Sitter (not family)						
	Family Member (not parent)	1 hour 15min					
	Unsupervised						
TV TIME	TV Shows\Movies	2 hours					
	Videos						
	Video Games	20 min.					
HOMEWORK TIME	Written Assignment	30 min.					
	Reading Assignment						
	Oral Drills	10 min.					
	Studying (mentally rehearsing)						
LEISURE READING	Reading Aloud						
	Reading Silently						
	Being Read To	20 min.					
BEDTIME	Lights Out	8:30					

94

106

105

APPENDIX D

DIRECTIONS FOR THE ACTIVITY LOG

1. Please fill in each column, daily.

2. Don't feel the need to change any normal routine or activity during the study.

3. Don't be concerned if one day is unusual or out of the ordinary in any way. The study focuses on averages, not isolated cases.

4. If your child spends time with another care provider, please ask that person about the amount of time your child spent doing homework, watching tv, or leisure reading while in their care. It is important to get an accurate account for each day. This would include bedtime if the care is provided in the evening.

5. Would you characterize the community you live in as a:

                _____ city (pop. 10,000 or more)

                _____ town (pop. 2,500 - 9,999)

                _____ suburban area

                _____ rural area

I release the information on this sheet to Jennifer Wynstra for the purpose of her study.

----------------------   ----------------------
      Signature   Date

DEFINITIONS

1. Extended Care: after school care provided by C.L.S. or another facility.

2. Family Member: a relative, other than the biological or step parent, who gives after school care in their home or the child's home.

3. Leisure Reading: reading activities that are not part of a school assignment.

4. Sitter: a person, unrelated to your family (such as a neighbor) who gives after school care in their home or the child's home.

5. Suburban Area: a residential area outside a city limit, but adjacent to it.

6. Unsupervised: no other person is present as a care giver.

CS012891

U.S. Department of Education
Office of Educational Research and Improvement (OERI)
Educational Resources Information Center (ERIC)

ERIC ®

REPRODUCTION RELEASE
(Specific Document)

I. DOCUMENT IDENTIFICATION:

Title: Relationship between Five Aspects of the Home
Environment and Students Reading Above Grade Level

Author(s): Jennifer Wynstra

Corporate Source:

Publication Date: 1995

II. REPRODUCTION RELEASE:

In order to disseminate as widely as possible timely and significant materials of interest to the educational community, documents announced in the monthly abstract journal of the ERIC system, *Resources in Education* (RIE), are usually made available to users in microfiche, reproduced paper copy, and electronic/optical media, and sold through the ERIC Document Reproduction Service (EDRS) or other ERIC vendors. Credit is given to the source of each document, and, if reproduction release is granted, one of the following notices is affixed to the document.

If permission is granted to reproduce and disseminate the identified document, please CHECK ONE of the following two options and sign at the bottom of the page.

The sample sticker shown below will be affixed to all **Level 1** documents

PERMISSION TO REPRODUCE AND DISSEMINATE THIS MATERIAL HAS BEEN GRANTED BY

_____

_____

TO THE EDUCATIONAL RESOURCES INFORMATION CENTER (ERIC)

Level 1

[✓] Check here
For Level 1 Release:
Permitting reproduction in microfiche (4" x 6" film) or other ERIC archival media (e.g., electronic or optical) *and* paper copy.

The sample sticker shown below will be affixed to all **Level 2** documents

PERMISSION TO REPRODUCE AND DISSEMINATE THIS MATERIAL IN OTHER THAN PAPER COPY HAS BEEN GRANTED BY

_____

_____

TO THE EDUCATIONAL RESOURCES INFORMATION CENTER (ERIC)

Level 2

[ ] Check here
For Level 2 Release:
Permitting reproduction in microfiche (4" x 6" film) or other ERIC archival media (e.g., electronic or optical), but *not* in paper copy.

Documents will be processed as indicated provided reproduction quality permits. If permission to reproduce is granted, but neither box is checked, documents will be processed at Level 1.

Sign here→ please

Signature: Jennifer Wynstra

Organization/Address: 118 W. 11th, Cedar Falls, Iowa, 50613

Printed Name/Position/Title: Jennifer Wynstra

Telephone: (319) 277-6104

FAX: —

E-Mail Address: JW10518@mail.cedarnet.org

Date: 8/19/97

362

III. DOCUMENT AVAILABILITY INFORMATION (FROM NON-ERIC SOURCE):

If permission to reproduce is not granted to ERIC, or, if you wish ERIC to cite the availability of the document from another source, please provide the following information regarding the availability of the document. (ERIC will not announce a document unless it is publicly available, and a dependable source can be specified. Contributors should also be aware that ERIC selection criteria are significantly more stringent for documents that cannot be made available through EDRS.)

Publisher/Distributor:
Address:
Price:

IV. REFERRAL OF ERIC TO COPYRIGHT/REPRODUCTION RIGHTS HOLDER:

If the right to grant reproduction release is held by someone other than the addressee, please provide the appropriate name and address:

Name:
Address:

V. WHERE TO SEND THIS FORM:

Send this form to the following ERIC Clearinghouse:

However, if solicited by the ERIC Facility, or if making an unsolicited contribution to ERIC, return this form (and the document being contributed) to:

ERIC Processing and Reference Facility
1100 West Street, 2d Floor
Laurel, Maryland 20707-3598

Telephone: 301-497-4080
Toll Free: 800-799-3742
FAX: 301-953-0263
e-mail: ericfac@inet.ed.gov
WWW: http://ericfac.piccard.csc.com

6/96)