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Changes in attitudes towards reading using the Accelerated Reader Program

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CHANGES IN ATTITUDES TOWARDS

READING USING THE

ACCELERATED READER

PROGRAM

by
Diana A. Heil

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ABSTRACT

Diana A. Heil. Changes in Attitudes Towards Reading Using the Accelerated Reader Program. 2001. Dr. Marilyn Shontz. Program in School and Public Librarianship.

The purpose of this experimental study was to determine if attitudes towards reading changed when the Accelerated Reader program was implemented. The study involved six classes of sixth and seventh graders in a six-week period and used a pretest/posttest design to measure changes in attitudes towards reading. A total of 128 students were given permission slips however only 50 students returned them. These fifty participants completed a reading attitudes survey at the beginning and conclusion of the study. The participants also answered a worksheet with questions about the book that they chose to read. Finally, the students completed reading comprehension quizzes through the Accelerated Reader program. Data analysis was achieved through tallying survey results and comparing three categories: sex, grade level and if a student was at-risk. Totals and percentages were computed on tables and figures using Microsoft Excel. Accelerated Reader proved to be useful in student motivation in reading. Approximately two-thirds of the participants' results affirmed the fact that the Accelerated Reader program was useful in fostering reading motivation.

MINI-ABSTRACT

Diana A. Heil. Changes in Attitudes Towards Reading Using the Accelerated Reader Program. 2001. Dr. Marilyn Shontz. Program in School and Public Librarianship.

The purpose of this study was to determine if using Accelerated Reader with sixth and seventh grade students would promote changes in attitudes towards reading. Pre- and posttest survey results were compared and analyzed by grade level, sex, and at-risk. Some students' attitudes did improve at the end of the six-week test period.

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I want to thank my husband for his patience, helpful advice, and understanding manner while completing this project. I would also like to thank my professor, Dr. Marilyn Shontz, for her thoughts and encouragement when it came to planning this thesis. Her selflessness was deeply appreciated.

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CHAPTER I

STATEMENT OF THE PROBLEM

Significance of the Topic

The use of computers in schools has increased over the last ten years. There are software programs, Internet access, computer-accessed sources for reference (Encyclopedia Britannica, almanacs, etc.) and CAI programs that support literacy across the curriculum. One such program is Accelerated Reader. The Accelerated Reader program allows students to test their comprehension skills by reading books for which the AR program provides a test consisting of ten comprehension questions. The students can take these tests as many times as they wish. Each time they take an Accelerated Reader test they receive points as a reward. The points accrue and are acknowledged through a log that is kept by the librarian or teacher. Accelerated Reader can be used from elementary school through high school. The book selection ranges from the first grade level to the twelfth grade level.

The importance of this topic is if Accelerated Reader can be shown to increase the reading attitudes and create positive reading outcomes for students of varying reading abilities. The program is expensive and extensive and requiring easy and immediate access to computers for students. Therefore, its effectiveness must be measured and reported to justify the investment of time and money. Nothing to date has been established with Accelerated Reader at Lakeside Middle School, and therefore there are no results or conclusions about the program for the middle school students that attend Lakeside.

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The study also looked at computer-assisted instruction through use of the Accelerated Reader program and its effect on at-risk readers.

Purpose of the Proposed Study

The purposes of this study were:

1) to study changes in attitudes towards reading of students participating in the Accelerated Reader program at Lakeside Middle School

2) to observe in a library setting students' reading choices and behaviors while using a CAI program

3) compare changes in reading attitudes using the variables of sex, at-risk category, and grade level

A reading attitude survey was administered to the library classes. This survey was adapted from the "Rhody Secondary Reading Attitude Assessment" (Tullock-Rhody & Alexander, 1980). A copy of the adaptation used is found in Appendix A.

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Definition of terms

Accelerated Reader - A computer-managed reading program for the purpose of encouraging students to read and to improve their comprehension. It is designed to help teachers motivate and manage literature-based reading among students of all abilities. (Accelerated Reader, 1998, p.1).

At -Risk Persons - Individuals or groups identified as possibly having or potentially developing a problem (physical, mental, educational, etc.) requiring further evaluation and/or intervention. (Thesaurus of ERIC Descriptors, 1995, p.24).

Attitudes - Predispostions to react to certain persons, objects, situations, ideas, etc. in a particular manner - not always consciously held (as are beliefs) nor readily verbalized (as are opinions), they are characterized as either effective, or valuative. (Thesaurus of ERIC Descriptors, 1995, p.24).

Circulation - The act of charging an item from the library collection to a member of the library's user group for use outside or within the library and discharging the item upon its return. (ALA Glossary of Library and Information Science, 1983, p.43).

Computer-Assisted Instruction - A system of individualized instruction in which a computer provides programmed instructional material. (Thesaurus of ERIC Descriptors, 1995, p. 60).

Middle School Teacher - An instructor whose responsibilities include classroom management, preparation of lesson plans and units, and monitoring behavioral and academic progress of students from the sixth to the eighth grade levels. (Thesaurus of ERIC Descriptors, 1995, p.100).

Librarian - A person responsible for the administration of a library; a class of library personnel with professional responsibilities including those of management, which require independent judgment, interpretation of rules of procedure, analysis of library problems, and formulation of original and creative solutions, normally utilizing knowledge of library and information science represented by a master's degree. (ALA Glossary of Library and Information Science, 1983, p.130).

Middle School Library - An area in an educational institution having a full range of media and servicing a student body comprised of 11- to 14 -year-olds at the sixth through eighth grade levels. (ALA Glossary of Library and Information Science, 1983, p.193).

Positive Outcomes - Results or consequences of education relating to the outcomes or organization of the educational process. (Thesaurus of ERIC Descriptors, 1995, p.214).

Reading Comprehension - The quality of reading matter that makes it interesting and understandable to those for whom it is written. (Thesaurus of ERIC Descriptors, 1995, p. 248)

School Curriculum - A written plan including one or more aspects of curriculum and instruction, such as goals and objectives, resources, a variety of learning activities, and evaluation techniques. (Thesaurus of ERIC Descriptors, 1995, p. 75).

School Library Media Center - An area or system of areas in an elementary, secondary or combined school where a collection consisting of a full range of media, associated equipment, and services from the media staff are accessible to students, teachers, and affiliated school staff. (ALA Glossary of Library and Information Science, 1983, p.199).

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Assumptions and Limitations

Some assumptions for this project were: that all the students who participated had been exposed to the Accelerated Reader program at their elementary schools; that participants were truthful with their responses to when surveyed; that students chosen did have some knowledge of how the AR test questions are presented; and that students did read a book completely before taking and AR test.

This study is limited to sixth and seventh grade students in the 4th session of the library program at Lakeside Middle School (approximately 120 students) The study will be completed at Lakeside Middle School in Millville, New Jersey in Cumberland County, and it is a school library/media center.

CHAPTER II

REVIEW OF THE LITERATURE

Overview

Reading is a vital proficiency that directly affects academic success in all subject areas. It is considered by numerous educators to be a foundation for achievement in school and throughout life. Reading is important for two reasons. First, research has proven that extensive reading of appropriate literature-based reading influences students to have a love of reading. Second, students who read a number of books within the "zone of proximal development", meaning they read books that are neither too hard or too easy, are successful readers.

The zone of proximal development (ZPD) is a concept adapted from child-development psychologist Lev Vygostsky. Vygotsky stated that a person attaining language skills will learn best if the concepts are not too easy. A student's ZPD is measured in literature-based reading by the range of books that will adequately challenge him or her without inducing frustration or a decrease in motivation. This success creates an internal motivation to continue the habit of reading (Institute for Academic Excellence, 1998).

This chapter is organized with information about the Accelerated Reader program, computer-assisted instruction and how its effectiveness was documented in specific studies mentioned, and the benefits of using a CAI program with at-risk students.

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Research on Computer-Assisted Instruction

Are students achieving better in reading through computer-assisted instruction? Many methods of teaching reading have been used to better reading comprehension. One approach is computer-assisted instruction (CAI). But what is to be observed is

whether or not students make more progress using the computers than they would through more traditional models of instruction, whether progress is being made on the most important academic and curricular areas and whether or not the system is cost-effective (Becker, 1992).

One specific research study completed in 1995 was based on a group of 25 middle school students with mild disabilities who used Apple IIe software for a lesson in decoding, sight word recognition, and comprehension (Marston, Deno, Kim, Kiment, and Rogers, 1995). Equal numbers of students were instructed using other techniques: direct instruction, peer tutoring, effective teaching method, and reciprocal teaching. Gains in achievement were found in CAI and direct instruction approaches. However, the highest level of student participation was evident through CAI.

Another study was conducted using CAI with teenagers with insufficient reading ability. This was attributed to the students' poor sight vocabulary that was thought to be an inaccurate measurement of their reading abilities. Computer systems that provided rapid feedback with pronunciations and meanings of unknown words were used and results showed that the systems helped the students acquire confidence in their reading ability and bolster their reading rate (Cutler & Truss, 1989).

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Other studies involving computers and special education students include Holzberg, 1995; Marston, et al., 1995; Peak & Dewalt, 1993. In the case of Holzberg's 1995 study a special education resource center's objective was "to use technology to support various student learning styles." Nineteen Macintosh computers were purchased to improve writing skills. Students involved had displayed a marked increase in their self-esteem. Their resulting written work was used as scripts for a stage performance. Holzberg stated "When educators treat children with reading and writing disabilities as 'gifted' rather than 'handicapped,' their performance is likely to surprise you" (1995, p.21).

Computer-assisted instruction and the management and assessment of it may be effective in improving student academic performance, especially in the areas of math and language (Becker 1992). The computer

> should be effective due to 1) the motivational nature of computer-based
> activities (referring to research that indicates that children do enjoy most
> computer learning activities, 2) 'centralized management functions' which
> allow the teacher more time to target specific students based on demonstrated
> need, and 3) how such systems can bring specific skill deficiencies to the attention
> of the teacher (1992, p. 2).

A study was conducted in 1994 through the National Council for Educational Technology (NCET) on a computer-aided learning system called an 'Integrated Learning System'(ILS). An ILS was defined as a host of software products which include 1) curriculum-based material, 2) a student record system, and 3) a measurement system to gauge student learning. In the course of the six month study, two computer learning systems were used. Evaluation methods were completed in 12 schools (4 elementary and 8 secondary) in Northern Ireland, Scotland, Wales, and England.

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Two goals of the study were to find 1) whether any learning gains came from the computer learning program and 2) whether changes in motivation and attitudes towards learning would be evident. Students were in either a control or experimental class and took standardized tests as an evaluation of reading ability (pre- and post-tests were completed). Student attendance and attitudes were monitored as well at the start and at the end of the project.

Supplementary qualitative evidence were conducting observations, recording students' thoughts about their work and comments taken from classroom teachers. The results showed no statistically significant differences in reading test results between the experimental and control groups over the six months. However, there were positive outcomes found in attitudes and motivation. Some considerations about this study were that 1) qualitative measures were observed and not quantitative measures therefore questions could be raised as to the accuracy of the study results and 2) the amount of time in which the study was conducted may not have been enough to verify changes in behavior and motivation. The NCET suggested studies completed in the United States on ILS had found gains to be slight within the space of six month's time.

<center>Reading Attitudes Research</center>

In a study conducted by Beers (1996), two seventh-grade classrooms of approximately 50 students total were observed for one year resulted in qualitative findings on aliteracy. Beers observed the students' behaviors and attitudes towards reading by interviewing them and then their parents. Beers designed a typology chart to map out the interest level of the students which ranged from avid to unskilled. The study distinguished three groups of aliterate readers: dormant, uncommitted, and unmotivated. Dormant readers enjoy reading but do not make the time to read a book.

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Uncommitted readers understand that reading is a skill which requires much energy to comprehend words and meanings. They are not interested in reading but are not opposed to others enjoying doing it. Unmotivated readers have extremely negative attitudes towards reading and those who enjoy it. They believe that reading is dull and useless. There is no motivation to even bother. Beers' research concluded that dormant readers recalled positive experiences in their early lives with reading and that the uncommitted and unmotivated readers remembered the times that books were read to them to be uncommon and uninteresting. These readers were asked how their opinions on reading could be assuaged and they volunteered ideas such as being able to look through nonfiction books with many illustrations rather than having the teacher make the choice of a fiction book.

Along with this study was another conducted on aliteracy within a group of seventh graders (Finn, 1999). A sampling of twenty-nine students from five classes of heterogeneously grouped seventh graders were observed and were categorized using Beers' typology of readers chart. The students were observed using time, whether free or assigned, for reading, their performance in specific reading activities was assessed and samples of their reading records were analyzed for quantity and types of entries made about books that they read. Students were assigned to read a minimum of five books per quarter. Three factors that affected students' motivation to read were identified: 1) lack of family support, 2) choice in selection of reading materials, and 3) time and value. It was also noted that "Sixty percent of American households did not buy even one book during a one-year period between 1990 and 1991" (Finn, 1999, p.6)

Measuring Reading Attitudes

A 1971 scale created by Estes is used in determining student attitudes towards reading. It has a higher reliability rate after being used repeatedly in studies concerning reading attitudes. The scale seems most effective when administered on a pre- and post-test basis. The purpose of the scale is to measure any changes in attitude that have occurred. Achievement is recorded by subtracting the students' former scores from their latter ones. Another measuring tool is the Elementary Reading Attitude Survey (ERAS) which measures attitudes towards reading for enjoyment and academic reading (Fitzgibbons, 1997). This is described as a "student-friendly" test and uses a popular cartoon character (Garfield) in the survey. There are a range of facial expressions that Garfield makes to show approval or disapproval of a response provided in the survey. This may be an appropriate and reasonable test for elementary level readers, but it is doubtful for testing beyond the elementary grades.

Electronic Reading Management Systems Research

Schools are provided with many choices for teaching curriculum. For reading, there are computer-assisted instruction programs that have proven to be useful and sufficient in providing feedback regarding attitudes towards reading. The Electronic Bookshelf is one such management system for reading (Yohe, 1997). Students choose a book title from a master list installed in a computer database and then take a comprehension test on the book they chose. The computer gives results of the tests quickly so that the student and the teacher can track progress.

Another well-known reading management program that allows students to choose reading materials and then apply computer-assisted instruction is Accelerated Reader (Advantage Learning Company, 1984). A report from the Institute for Academic Excellence states that "The Accelerated Reader (AR) is a learning information system designed to help teachers manage literature-based reading." (Institute for Academic Excellence, 1998, p. 1). The database for Accelerated Reader contains 15,000 titles; 60% are fiction titles (Keller, 1998). Schools can buy test disks with the titles and load the software in a computer system. Students can then take a computerized test on their book within a day of completing it. The titles range in reading level from Level 1 to Level 12 and are appropriate for regular education as well as special education students. The research department for Accelerated Reader known as the Institute for Academic Excellence, studied the correlation between literature-based reading and critical thinking since the AR program's foundation is self-selected literature-based reading. "Reading comprehension is not a passive consumption of meaning, but requires the active, thoughtful participation of the reader to create patterns of meaning" (p.4). The use of critical thinking skills are needed to examine the story elements and make sense of the details within the text.

A study that was completed at a small rural school in Italy, Texas involving the Accelerated Reader program showed increases in standardized test scores by 12 percent the first year and 15 percent the second year (Roland, 1990). Having AR also increased the circulation of library books by 48 percent after two years. Teachers noticed that students were discussing books more, even recommending books to other students. The students' enthusiasm over reading was credited by the researcher to the Accelerated Reader program.

Another study was conducted with underachieving students in Franklin, New Jersey (Turner, 1993). After students were surveyed using the Estes Scale, reading library circulation statistics and notes on reading behaviors, it was concluded that reading was not a priority. This was evident for upper elementary students at Franklin Elementary. As students progress through the grade levels there was a noticeable change in reading patterns (less motivation, less time spent reading independently, and lack of library use). In response to this, several methods were put in place to improve reading attitudes. They were: Accelerated Reader, SSR or sustained silent reading, a read-aloud program, a home reading contract, public library membership and a novel-based reading approach. These tools were to also foster improvement reading achievement. Some educators agreed with Turner that "students must be given opportunities to read and enjoy the activity before attitudes can improve and thus positively influence reading growth and achievement" (Carbo, 1987; Everhart, 1995; Finn, 1999, p.33). Students were motivated to spend more time reading by using the Accelerated Reader. It also developed an interest in selection of books. Student interest increased in the study that was conducted by Everhart. Tamaqua Area Senior High School students received extra credit for reading and successfully passing quizzes using the Electronic Bookshelf. The quizzes were either part of the database for Electronic Bookshelf or were added by students, the librarian and teachers. Students were invited by the librarian to write quiz questions for extra credit (Yohe, 1997).

Summary

Reading is a gradual process. A reader begins with a word, then a sentence and finally proceeds to a selection. Motivation is the key in order for the process to flourish and broaden reading ability. The Accelerated Reader is one such tool that encourages readers to better their reading performance and enrich comprehension. In previous studies it has been shown to improve reading attitudes.

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CHAPTER III

METHODOLOGY

Overview

This project was done as a true experimental design. The pretest-posttest contol group design was used with approximately 120 students. This project was descriptive research on correlation level concerning the reading attitudes of individuals in a school library media center instructional program.

Data for this study were gathered through a pretest-posttest method. This systematic method allowed the selected sample to be tested, scored and analyzed to find changes in reading attitudes and to see if attitude changes vary by sex, grade level and at-risk variables. A questionnaire was administered at the start and the end of the assessment period. Students answered the questionnaire the first week and again in the final week of session 4. In addition to this they read a book and shared information about that book with the class then took an Accelerated Reader test on it. This format was used the first three weeks of session 4 library classes. This format provided observable results concerning attitude changes in reading and exposed students to the Accelerated Reader program so that they were able to use it in future class periods.

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Statement of Purpose

The purposes of this project are 1) to study changes in attitudes toward reading of students participating in the Accelerated Reader program at Lakeside Middle School, 2) to observe in a library setting students' reading choices and behaviors while using a computer-assisted-learning program, and to compare changes in reading attitudes using the variables of sex, at-risk category, and grade level. Success of the Accelerated Reader program with sixth- and seventh- grade students will be measured by improvement in student attitudes toward reading.

The importance of this project is if Accelerated Reader can be shown to improve the reading attitudes and foster positive reading experiences for students, then the investment of time and money is justified. The program is expensive and extensive and requiring easy and immediate access to computers for students. Therefore, its effectiveness must be measured and reported.

Population and Sample

The population that was observed is the 4th session of sixth and seventh grade library classes at Lakeside Middle School in Millville, New Jersey. The sample was over 120 students who had library classes in one 6 week session and returned parental permission slip(see Appendix B). At the beginning of the 4th session students completed a questionnaire on reading attitudes.

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By the sixth week students repeated the process and results were analyzed for comparison. The subjects comprise a nonrandom sample since those involved were students in preselected library classes. This nonprobability sampling were purposive and judgmental where the group is available and can easily become the sample for the study.

Variables

The dependent variable in this study was the students' individual attitudes towards reading as determined by changes reported in the pre-post test questionnaire results. Independent variables were at-risk status, sex and grade level.

Methods of Data Collection

The following timeline was followed for the study:

1.) Sixth and seventh grade students in the fourth session library classes were given permission slips for the study. After the subjects returned the permission slips a questionnaire was administered the first week of class. The questionnaire focused on attitudes towards reading in order to gather data about the subjects' individual behavior and feelings concerning reading.

2.) Lessons were prepared to introduce the Accelerated Reader program to the students. Students participated in demonstrations of the program and became familiar with the computer tracking system. Testing for the AR program was done in the library as each student had his/her own computer to use.

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3.) Each class session was 40 minutes long. There are 6 classes which meet each day and there were approximately 23 students in each class. In order to get the students familiar with the program the class time was rearranged from 20 minutes/lesson and 20 minutes/reading or computer assignment to 10 minutes/sharing reading assignments (possibly 5 students per day) and 30 minutes/ Accelerated Reader program. This included the student reading one or more books and taking an AR test for each book. The students retested if they wished, however, their achievement on tests taken was not being measured. The time change took place in the first three weeks of session 4. The regular library schedule resumed the fourth week of classes. Within this time frame student records from the Accelerated Reader were printed out for observation. By the last week, students again took the questionnaire that was completed in Week 1 and pre- and posttest results were compared and analyzed.

Reliability and Validity

The reliability of the research design is external since studies like this have been completed elsewhere with elementary and middle school settings and students of various reading abilities. The attitude questionnaire was refined so that items could be easily understood and answered with accuracy and that the validity of this project will be ensured. The questionnaire was pretested with session 3 students.

The questionnaire was adapted from the "Rhody Secondary Reading Attitudes Assessment Survey". The survey has a combination of positive and negative statements. However, the survey was revised so that all statements were positively phrased. This did not hinder the students' responses as they were still able to respond in agreement or disagreement.

CHAPTER IV

ANALYSIS OF DATA

Response Rate

A total of 128 sixth and seventh-grade students were provided with permission slips for this study. Fifty students responded with returned permission slips. The respondents completed a reading attitude survey at the beginning and conclusion of the study. The study was completed over a six-week period. The students' responses were then tallied and configured on charts and tables using the Microsoft Excel program.

Procedures/Methods Used

Students completed reading practice quizzes using the Accelerated Reader program. In addition to taking the quizzes, each student filled out a "Book Sharing Worksheet" (see Appendix C) when they had finished reading. The students recalled background information about a book (setting, characters, conflict, events), recorded it on the worksheet and then presented their information at the beginning of each class. The participating students read books from varied reading levels (2nd grade to 5th grade) that they were allowed to choose from and continued to take Accelerated Reader quizzes in conjunction with completing the worksheets the first three weeks of the study. During all six weeks, the researcher observed the students' behavior and collected data.

Some students chose an Accelerated Reader book then proceeded to the computers to take a quiz and never finished reading it. Even though it was explained to them that the book be read first before accomplishing a quiz. It was observed that the majority of 7th graders were reading books that were four grade levels lower than their grade level. Most of the students that were reading four grade levels lower were also observed to be male.

The Accelerated Reader books in our library were marked with colored dots to indicate grade levels ranging from 2nd grade to 8th grade. Once students became familiar with the system, many from both grade levels immediately flocked to the books at lower reading levels. In contrast to this were students who made their way to the paperback fiction books that were only two grade levels below their grade level. Due to the fact these books took some time to read, these students were taking quizzes less frequently than the students who chose lower-grade level books.

Statistical Analysis and Presentation of Results

Pre- and posttest results were arranged for all students in Table 1. Tables 2 through 4 present results that are arranged by grade level and at-risk students. Table 1 provides an overview of the survey respondents and their response totals. The numbers on the top of the table refer to the survey questions in which the students provided responses. The response numbers were equated with varying degrees of agree and disagree answers; number one being "Strongly Disagree" to number five being "Strongly Agree".

Table1

Reading Survey Results

Name	M/F	AT RISK	Grade Lev	#1	#2	#3	#4	#5	#6	#7	#8	#9	#10	#11	#12	before	after
Ayesha W.	F	No	6	1	1	1	1	1	1	1	4	1	1	1	1	2.7	1.3
Britney P.	F	No	6	4	4	2	4	4	4	2	4	4	4	4	4	3.7	3.7
Caroline H.	F	No	6	4	5	5	4	4	3	3	4	3	3	3	4	3.6	3.7
Chris R.	M	No	6	2	5	2	5	5	4	5	5	5	5	3	5	3.5	4.0
Dennis W.	M	No	6	3	4	2	2	2	3	4	4	2	3	4	4	3.3	3.3
Eligio R.	M	No	6	3	4	5	5	4	5	1	1	1	5	3	3	3.5	3.5
Gustavo M.	M	No	6	4	4	5	5	5	4	4	1	4	4	4	4	3.9	3.7
Heather T.	F	No	6	2	4	3	3	3	2	3	4	3	1	3	4	4	2.8
Jacoya S.	F	No	6	4	4	2	2	2	3	3	4	2	3	4	3	3.8	3.1
James W.	M	Yes	6	2	4	2	2	2	4	4	4	4	4	4	2	3.2	3.2
Jenni G.	F	No	6	4	5	3	3	4	5	5	5	5	4	5	2	4	4.0
Josh D.	M	No	6	4	4	4	4	4	2	4	4	2	4	4	4	3.5	3.5
Kristine J.	F	No	6	4	1	4	4	3	3	4	5	4	4	4	5	3.8	3.9
Lauren M.	F	No	6	4	4	2	2	2	5	1	4	2	3	4	1	3.4	3.8
Melissa O.	F	No	6	1	4	1	1	1	2	1	4	1	3	3	3	3.8	2.3
Nick G.	M	No	6	5	5	5	5	5	5	3	5	3	5	5	5	4.5	3.7
Nicole I.	F	Yes	6	4	5	5	5	4	3	3	5	3	5	4	2	3.8	3.8
Noemi M.	F	Yes	6	3	4	3	3	3	4	2	4	4	4	5	5	3.1	3.8
Rachel T.	F	No	6	3	3	2	2	2	2	3	3	2	3	3	3	3.3	2.5
Rob M.	M	Yes	6	4	5	5	5	4	4	4	4	2	4	2	4	3.7	3.8
Sarah F.	F	Yes	6	2	2	2	2	5	2	3	1	4	3	5	1	4.4	2.9
Sarah G.	F	No	6	3	5	4	4	4	4	5	5	1	5	2	3	4.8	3.8
Steven M.	M	No	6	4	4	4	3	5	5	4	5	4	4	5	5	3.4	4.3
Tamara H.	F	Yes	6	2	2	3	2	2	2	1	5	2	4	2	3	3.2	2.3
Tamrika T.	F	No	6	1	4	4	1	2	1	5	5	5	1	5	5	3.7	3.0
Tiffany M.	F	Yes	6	4	4	3	3	3	4	3	4	3	4	4	2	3.5	3.5
Tina D.	F	No	6	2	3	4	3	3	4	1	2	1	4	5	4	2.7	3.3
Anthony O.	M	No	7	3	1	2	1	1	2	3	4	4	3	3	1	2.2	2.7
Ashley C.	F	No	7	1	2	1	1	1	5	4	3	3	2	1	1	3.4	2.1
Ashley S.	F	No	7	4	4	2	3	3	3	2	4	4	4	3	2	3.8	3.1
Brenda K.	F	No	7	5	5	5	4	4	4	3	3	4	4	2	4	3.8	3.8
Chris W.	M	No	7	2	1	1	1	1	1	1	5	1	4	1	1	2.3	1.4
Deanna D.	F	No	7	4	5	5	4	4	4	4	3	2	5	2	5	3.6	4.0
Devon T.	F	No	7	3	4	4	1	3	3	4	4	4	3	4	3	3.3	3.3
Emily B.	F	No	7	4	5	5	5	4	1	2	3	3	3	5	5	4	4.0
Jason M.	M	No	7	3	4	1	1	1	1	4	3	4	1	2	1	2.9	2.3
Jon B.	M	No	7	2	2	2	2	2	3	2	2	2	4	2	2	2.2	2.2
Julie R.	F	No	7	3	4	4	3	4	4	2	4	4	4	3	4	3.7	3.7
Kasand V.	F	Yes	7	1	1	1	4	1	1	1	5	1	1	4	1	1.7	1.8
Krystle W.	F	No	7	4	5	5	5	5	5	4	4	5	5	4	5	3.7	4.2
Lauren F.	F	No	7	3	4	3	3	3	3	3	4	2	3	3	1	2.8	2.8
Magen I.	F	Yes	7	2	4	4	2	2	4	2	4	2	2	2	2	2.7	2.7
Mary S.	F	No	7	3	4	3	3	3	4	4	4	4	4	4	4	3.8	3.8
Nichole P.	F	Yes	7	1	1	2	2	1	1	2	2	4	1	2	2	2.2	1.8
Nicole D.	F	Yes	7	3	3	2	1	3	3	2	3	3	2	3	3	2.3	2.5
Rob W.	M	No	7	4	4	4	4	4	4	5	4	4	2	5	4	3.8	4.0
Ryan H.	M	No	7	3	2	2	5	5	5	3	4	4	5	5	5	4.1	4.1
Sam N.	F	No	7	3	4	2	3	3	2	2	4	4	2	3	2	3.2	2.7
Tiffany T.	F	No	7	2	3	3	2	2	3	2	4	3	3	2	2	2.7	2.5

The five responses are displayed on a copy of the reading survey that was used in the study and can be found in Appendix B.

Tables 2 and 3 are divided by the grade level of the participants. The sixth graders' scores reveal 11 students' scores decreasing while the seventh grade students have 8 students with decreased scores. The sixth grade students had 8 increased scores and 7 that stayed the same. Seventh grade students had 6 increased scores and 9 that stayed the same.

Table 4 shows the responses of the students that were at-risk. Three of the students had scores that decreased, 4 had increased scores and 4 others had scores that stayed the same.

Students were then assessed in three categories: grade level, sex and at-risk in Figures 1 through 8. Fifty-four percent of the students were sixth graders, 46 percent were seventh graders. Sixty-eight percent of the participants were female and 32 percent were male. Twenty-two percent of the participants were at-risk. Finally, the results of the 50 participants were arranged by the number of survey scores that increased, decreased, or stayed the same. This information can be found in Figure 9. Nineteen students' scores decreased (38 percent), while 14 increased (28 percent), and 17 stayed the same (34 percent).

Table 2

Reading Survey Results

Name	M/F	AT RISK	Grade Lev	#1	#2	#3	#4	#5	#6	#7	#8	#9	#10	#11	#12	before	after
Ayesha W	F	No	6	1	1	1	1	1	1	1	1	1	1	1	1	2.7	1.3
Britney P.	F	No	6	4	4	2	4	4	4	2	4	4	4	4	4	3.7	3.7
Caroline H	F	No	8	4	4	5	4	4	3	3	4	3	3	3	4	3.6	3.7
Chris R.	M	No	6	5	2	5	2	4	4	5	5	5	5	3	2	3.5	4.0
Dennis W	M	No	6	3	3	4	2	3	3	4	4	2	3	4	5	3.3	3.3
Eligio R.	M	No	6	5	3	4	5	5	1	1	4	1	5	3	4	3.5	3.5
Gustavo M	M	No	6	4	4	4	5	4	4	4	1	1	4	4	4	3.9	3.7
Heather T	F	No	6	2	2	4	3	2	3	3	4	3	1	3	4	4	2.8
Jacoya S.	F	No	6	3	4	4	2	3	4	3	4	2	3	4	3	3.8	3.1
James W.	M	Yes	6	2	2	4	2	4	4	4	4	4	4	4	2	3.2	3.2
Jenni G.	F	No	6	5	4	5	3	4	4	3	4	5	4	5	5	4	4.0
Josh D.	M	No	6	4	4	4	4	4	2	4	2	2	4	4	2	3.5	3.5
Kristine J.	F	No	6	3	4	1	4	3	3	4	5	4	4	4	5	3.8	3.9
Lauren M.	F	No	6	5	4	4	2	2	5	1	5	2	4	4	1	3.4	3.8
Melissa O	F	No	6	2	1	4	1	2	2	1	4	1	3	3	3	3.8	2.3
Nick G.	M	No	6	5	5	5	5	5	3	3	5	3	5	5	5	4.5	3.7
Nicole I.	F	Yes	6	3	4	5	5	3	3	3	5	3	5	3	4	3.8	3.8
Noemi M.	F	Yes	6	4	3	4	3	4	2	2	4	4	4	5	5	3.1	3.8
Rachel T.	F	No	6	2	3	3	2	2	3	3	3	2	1	3	3	3.3	2.5
Rob M.	M	Yes	6	4	4	5	5	4	4	3	4	2	4	2	5	3.7	3.8
Sarah F.	F	Yes	6	3	2	4	2	2	5	3	1	4	3	5	1	4.4	2.9
Sarah G.	F	No	6	5	3	5	4	4	4	5	5	1	5	2	3	4.8	3.8
Steven M.	M	No	6	4	4	4	4	5	5	5	5	4	4	5	5	3.4	4.3
Tamara H.	F	Yes	6	2	2	2	3	2	2	1	2	2	1	2	2	3.2	2.3
Tamika T.	F	No	6	1	1	1	4	2	4	1	5	5	4	5	5	3.7	3.0
Tiffany M.	F	Yes	6	5	4	4	3	4	3	3	4	3	4	4	4	3.5	3.5
Tina D.	F	No	6	4	2	3	4	4	4	1	2	3	4	5	5	2.7	3.3

Table 3

Reading Survey Results

Name	M/F	AT RISK	Grade Lev	#1	#2	#3	#4	#5	#6	#7	#8	#9	#10	#11	#12	before	after
AnthonyO.	M	No	7		3	1	2	1	2	3	4	2	3	3	4	2.2	2.7
Ashley C.	F	No	7		1	2	1	1	5	2	3	3	2	3	1	3.4	2.1
Ashley S.	F	No	7		4	4	2	3	3	2	4	4	4	3	2	3.8	3.1
Brenda K.	F	No	7		5	5	4	4	4	3	3	4	4	2	4	3.8	3.8
Chris W.	M	No	7		2	1	1	1	1	1	5	1	1	1	1	2.3	1.4
Deanna D	F	No	7		4	5	5	4	4	4	3	2	5	2	5	3.6	4.0
Devon T.	F	No	7		3	5	4	1	3	4	4	4	3	4	2	3.3	3.3
Emily B.	F	No	7		4	5	5	5	4	4	3	3	3	4	5	4	4.0
Jason M.	M	No	7		3	4	1	1	1	4	3	4	1	3	2	2.9	2.3
Jon B.	M	No	7		2	2	2	2	2	2	2	2	4	2	2	2.2	2.2
Julie R.	F	No	7		3	4	4	4	3	3	4	4	4	3	4	3.7	3.7
Kasard V.	F	Yes	7		1	4	1	1	1	1	5	1	1	1	4	1.7	1.8
Krystle W.	F	No	7		4	5	5	5	5	4	4	5	5	4	1	3.7	4.2
Lauren F.	F	No	7		3	4	3	3	3	3	4	2	3	3	2	2.8	2.8
Megen I.	F	No	7		4	4	2	2	2	2	2	4	2	2	2	2.7	2.7
Mary S.	F	No	7		3	4	3	3	4	4	4	4	4	4	4	3.8	3.8
Nichole P.	F	Yes	7		1	1	2	2	1	2	2	4	1	2	2	2.2	1.8
Nicole D.	F	Yes	7		3	3	2	1	3	2	3	3	2	3	3	2.3	2.5
Rob W.	M	No	7		4	4	4	4	4	5	4	3	4	3	5	3.8	4.0
Ryan H.	M	No	7		4	2	4	5	5	3	4	4	5	4	5	4.1	4.1
Sam N.	F	No	7		3	4	2	3	2	2	4	2	2	3	2	3.2	2.7
Tiffany T.	F	No	7		2	3	2	2	3	2	4	3	3	2	2	2.7	2.5

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Table 4																	
Reading Survey Results																	
Name	M/F	AT RISK	Grade Lev	#1	#2	#3	#4	#5	#6	#7	#8	#9	#10	#11	#12	before	after
James W.	M	Yes	6	2	4	2	2	2	4	4	4	4	4	4	2	3.2	3.2
Kasand V.	F	Yes	7	1	4	1	1	1	1	1	5	1	1	1	4	1.7	1.8
Megen I.	F	Yes	7	4	4	2	2	2	2	2	2	4	2	2	2	2.7	2.7
Nichole P.	F	Yes	7	1	1	2	1	1	2	2	1	1	3	2	3	2.2	1.8
Nicole D.	F	Yes	7	3	3	2	4	3	2	3	3	5	2	3	3	2.3	2.5
Nicole I.	F	Yes	6	4	5	5	4	3	3	5	3	3	5	3	4	3.8	3.8
Noemi M.	F	Yes	6	3	4	3	3	4	2	4	4	4	5	5	5	3.1	3.8
Rob M.	M	Yes	6	4	5	5	4	4	3	4	2	4	2	5	4	3.7	3.8
Serah F.	F	Yes	6	2	4	2	5	2	3	1	4	3	5	1	3	4.4	2.9
Tamara H.	F	Yes	6	2	2	3	2	2	1	5	2	4	2	2	1	3.2	2.3
Tiffany M.	F	Yes	6	4	4	3	3	4	3	4	3	4	4	4	2	3.5	3.5

Figure 1 - Male/Female Student Participants

68%

32%

Females
Males

26
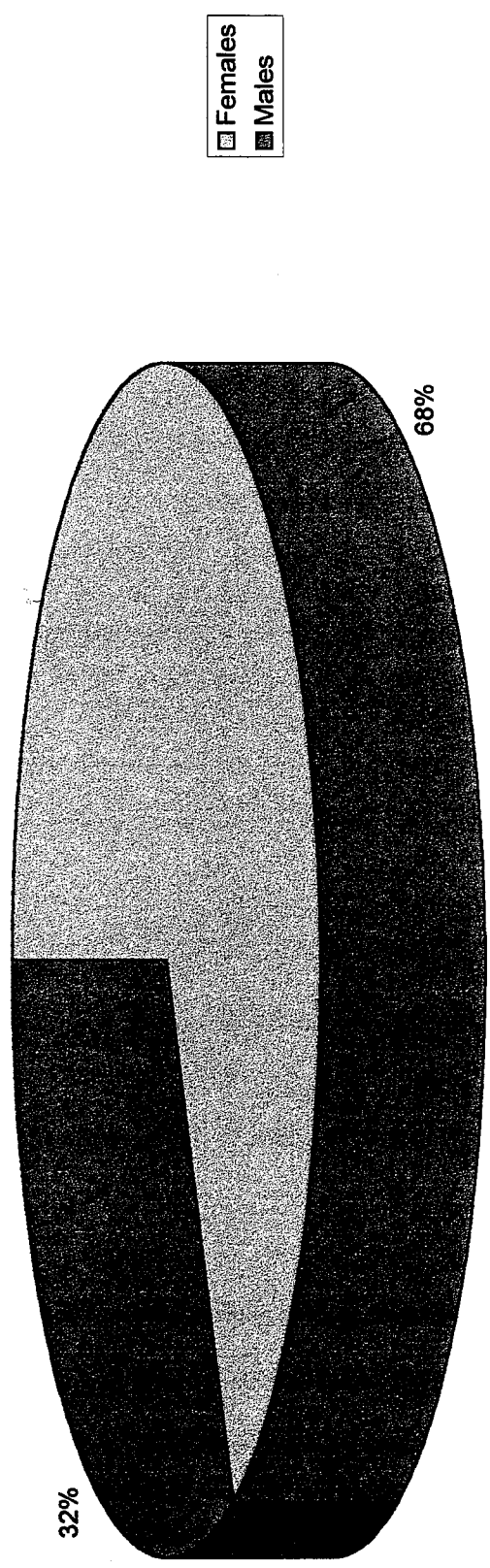
Figure 2 - 6th & 7th Grade Participants

54%

46%
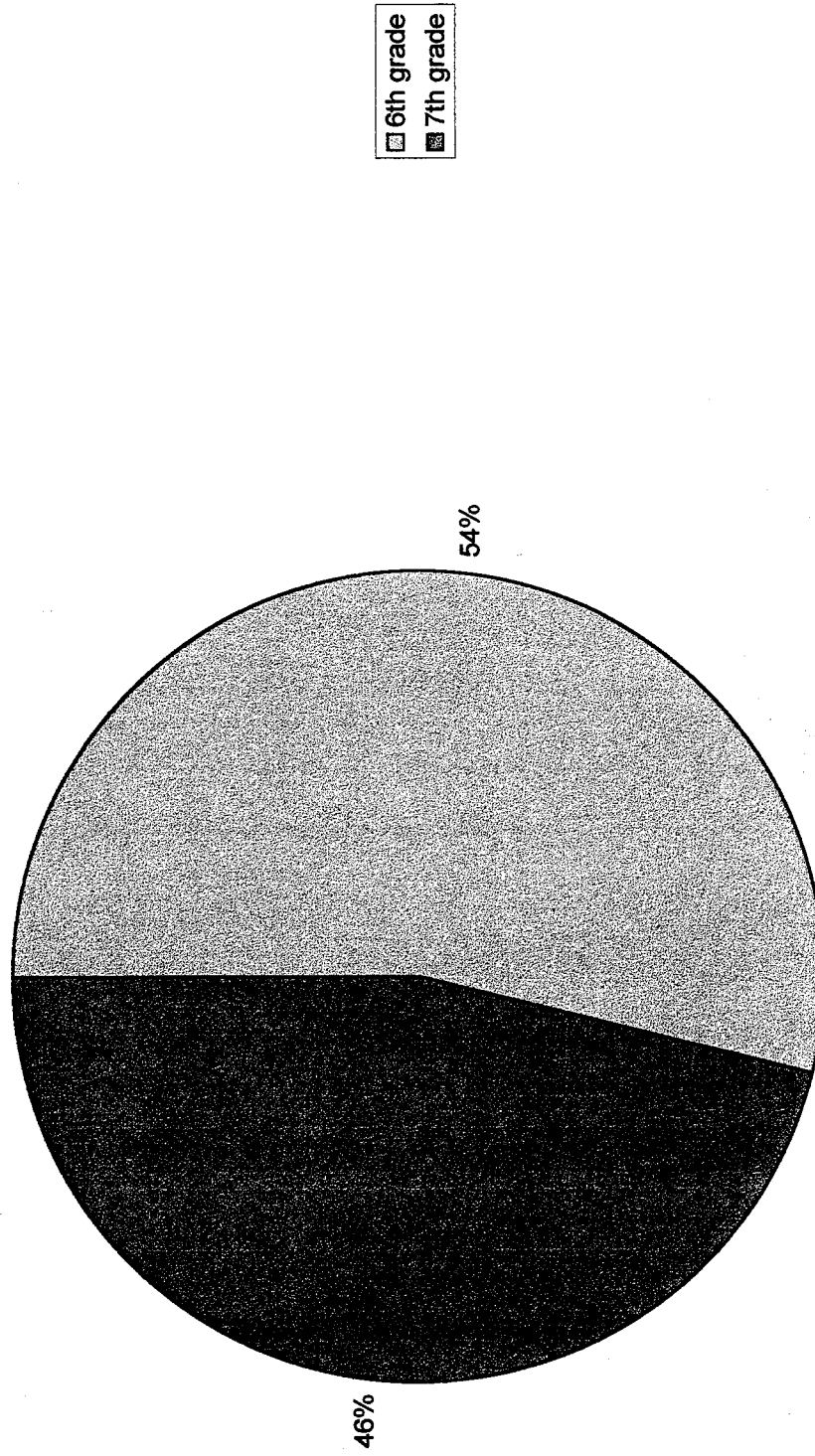
6th grade
7th grade

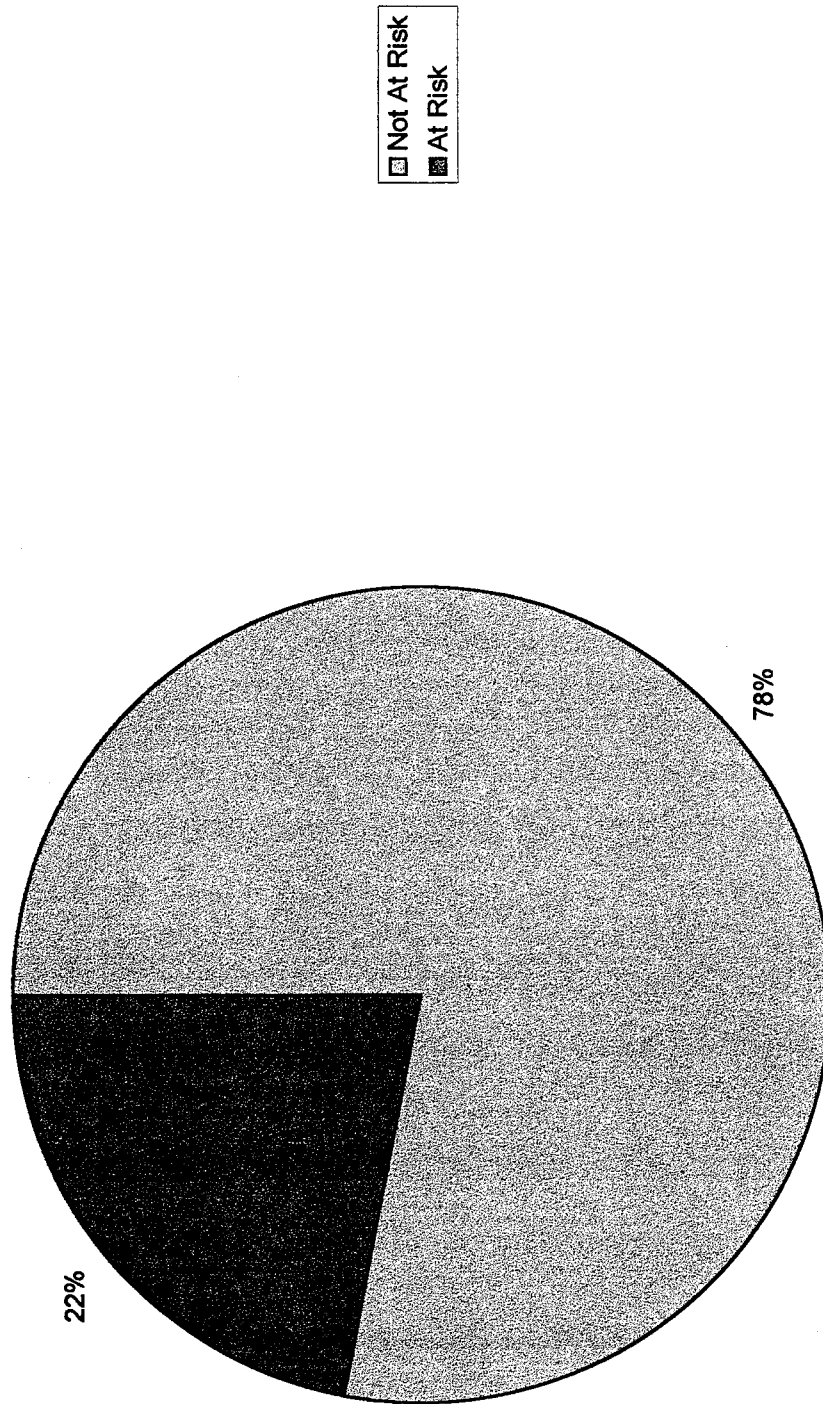**Figure 3 - At-Risk/Not At-Risk Students**
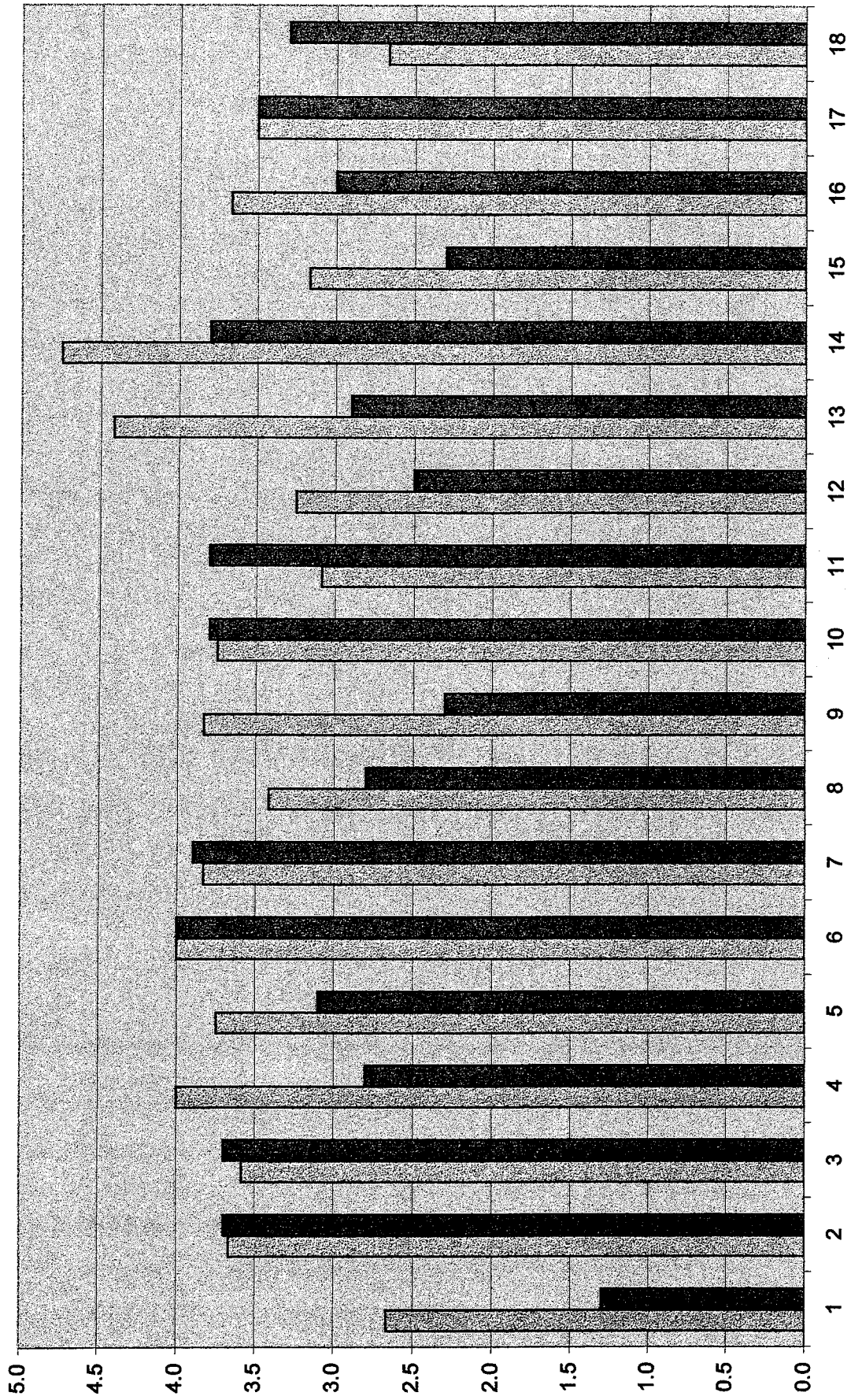

Not At Risk
At Risk

78%

22%

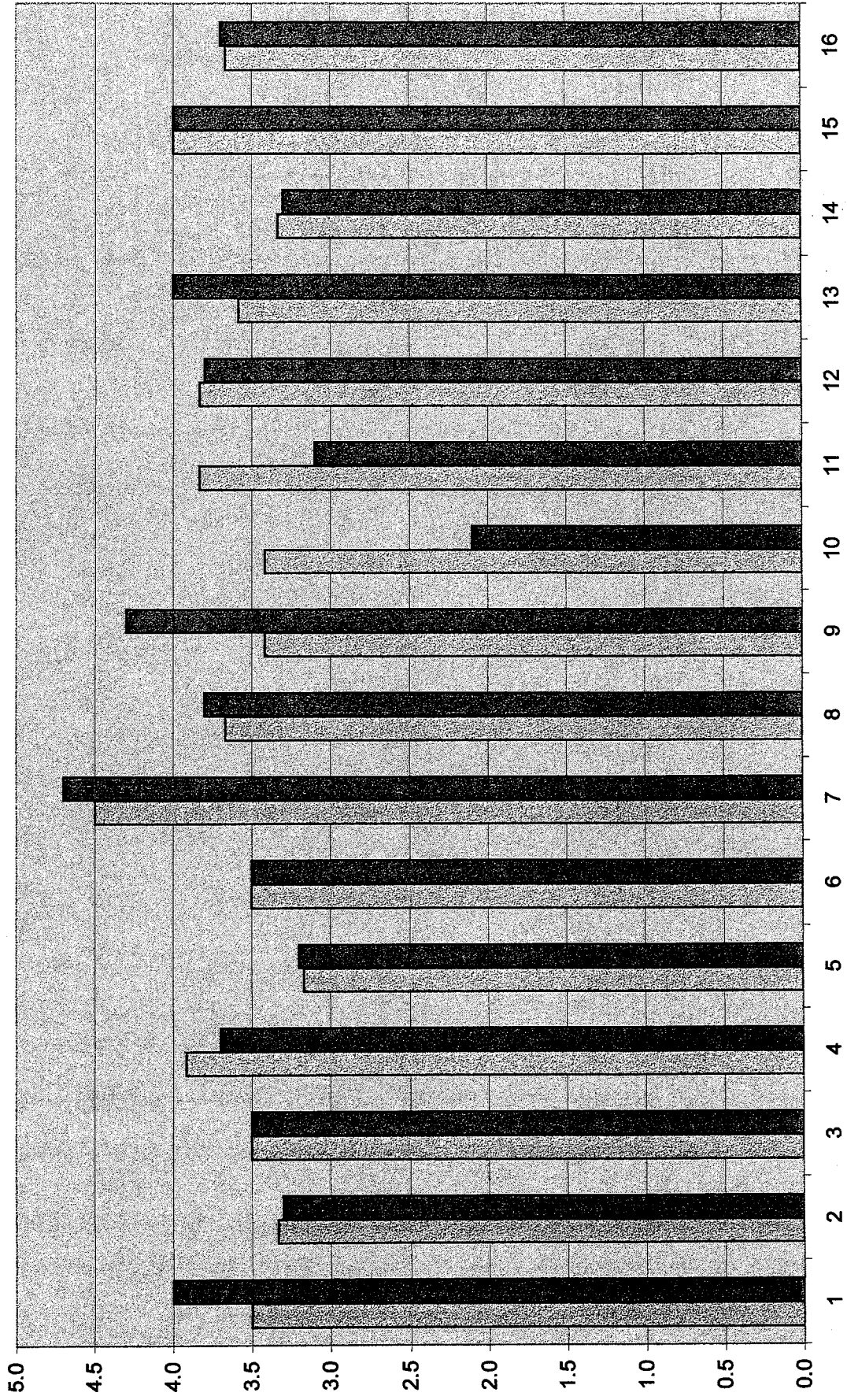Figure 4 - 6th Grade Females

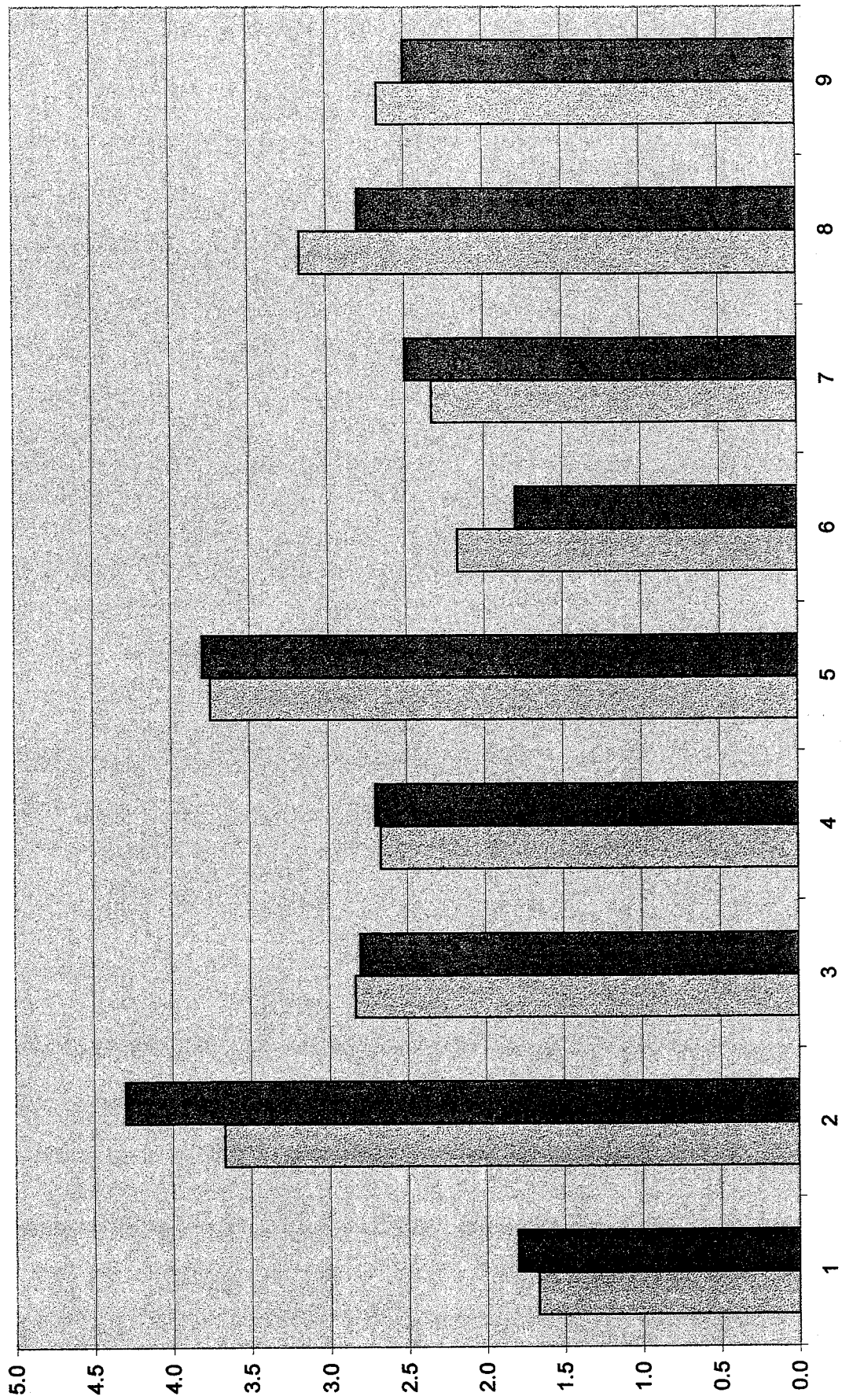29

Figure 5 - 7th Grade Females
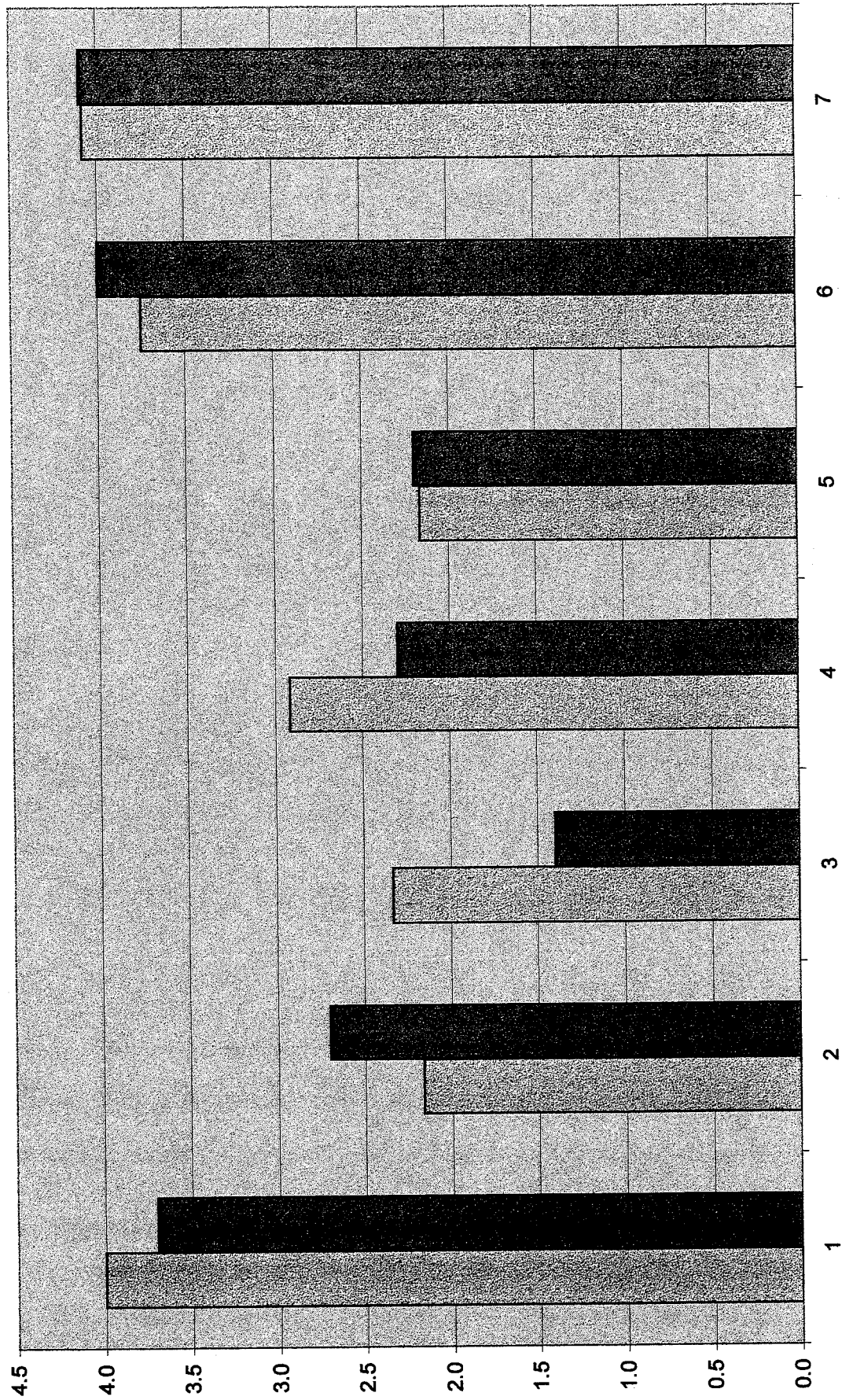
Figure 6 - 6th Grade Males

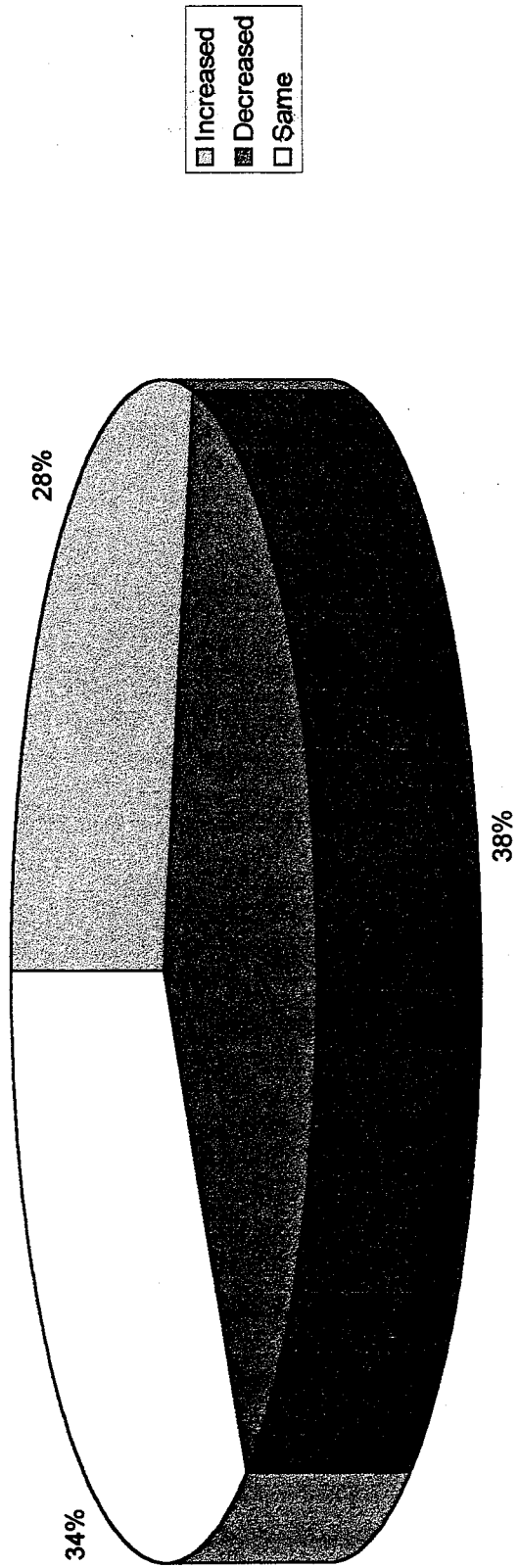Figure 7 - 7th Grade Males

Figure 8 - Male/Female At-Risk Students (n=11)
Pre and Post Test Results

Figure 9 - Score Results

28%

38%

34%

Increased
Decreased
Same

34

CHAPTER V

SUMMARY AND CONCLUSIONS

Summary

The purpose of this experimental study was to determine if attitudes towards reading changed when the Accelerated Reader program was implemented. The study involved six classes of sixth and seventh graders in a six-week period and used a pretest/posttest design to measure changes in attitudes towards reading. A total of 128 students were given permission slips however only 50 students returned them. These fifty participants completed a reading attitudes survey at the beginning and conclusion of the study. The participants also answered a worksheet with questions about the book that they chose to read. Finally, the students completed reading comprehension quizzes through the Accelerated Reader program. Data analysis was achieved through tallying survey results and comparing three categories: sex, grade level and if a student was at-risk. Totals and percentages were computed on tables and figures using Microsoft Excel. Accelerated Reader proved to be useful in student motivation in reading. Approximately two-thirds of the participants' results affirmed the fact that the Accelerated Reader program was useful in fostering reading motivation.

Conclusions

Results of this study provided data which prompted the conclusion that the changes in participants' attitudes towards reading supported the Accelerated Reader program. In this study, seven out of eleven at-risk participants (70 percent) showed improvement. Evidence that more of the participants had scores that increased or stayed the same (62 percent improved scores) is a valid indicator that Accelerated Reader was worthwhile and is a program that works well in Lakeside Middle School Library. Students might benefit further if they were to use Accelerated Reader in their classrooms as well.

One major contributing factor that demonstrated how their attitudes towards reading were affected, were the choices that the students made with selecting books. If students had been given a limitation of choosing only books that were at their grade level or higher, the results of the study might have been misrepresented through an elevated percentage of students whose responses could have reflected a greater decrease as well a decline in circulation. In brief, if further requirements were made with the students' approach to book selection, the results of the students' attitudes towards reading would have produced a lack of participation from the respondents.

Possible Uses of Results

The information culminated from this study justifies that Accelerated Reader was a worthwhile investment and will continue to be used. This study could be used as an updated study using the Accelerated Reader program and its affects on students' attitudes towards reading.

Recommendations for Further Study

Subsequent studies would be beneficial through obtaining information from a larger population of middle school students and recording their attitudes towards reading using similar surveying instruments coupled with the use of the Accelerated Reader program. Other areas for further study might be comparisons with reading achievement, other grade levels, other geographic areas, using a more extensive period of time, and possibly urging students to read on their grade level.

APPENDIX A

Reading Attitude Parental Letter and Consent Form

Dear Parent,

As the media specialist at Lakeside Middle School I am pursuing a Master's degree in School and Public Librarianship at Rowan University. I would like to conduct research with students in the 6th and 7th grade library classes.

I am requesting your permission to allow your child to participate in a study of attitudes toward reading. Each child in the study will be asked to complete a reading attitude questionnaire at the beginning and end of the study. The total time required for the pretest and posttest combined is about thirty minutes.

No ascertainable risks or physical discomforts are associated with this study. The research will not directly affect the students' performance or grades. Knowledge gained from the study will contribute to a better understanding of changes in reading attitudes among our students.

The data collected will be kept confidential and will not be reported in a manner that personally identifies the participants. Any specific information pertaining to your child will be destroyed within thirty days of completion of the study.

You may choose not to allow your child to participate in this study or you may decide to withdraw your child at a later date. No child will be penalized for nonparticipation or withdrawal from the study.

Please address any questions you have about this project to me, Diana Heil at Lakeside Middle School, 856-293-7600. Thank you very much.

Sincerely,

Diana Heil

I have read and understand the above information and agree to allow my child to participate. My child has also read the consent form and agrees to participate in this study.

_____	_____	_____
Name of Parent (print name)	Signature of Parent	Date

_____	_____	_____
Name of Student (print name)	Signature of Student	Date

APPENDIX B

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Reading Attitude Survey

Directions: This is a survey to show how you feel about reading. The score will not affect your grade in any way. Read the statements below silently then circle one of the responses that tells how you feel about each statement.

1. You like to buy books.
   a. Strongly Disagree
   b. Disagree
   c. Undecided
   d. Agree
   e. Strongly Agree

2. You have many of your own books at home.
   a. Strongly Disagree
   b. Disagree
   c. Undecided
   d. Agree
   e. Strongly Agree

3. When you have free time, you like to read.
   a. Strongly Disagree
   b. Disagree
   c. Undecided
   d. Agree
   e. Strongly Agree

4. You love to read.
   a. Strongly Disagree
   b. Disagree
   c. Undecided
   d. Agree
   e. Strongly Agree

5. You think reading is a good use of time.
   a. Strongly Disagree
   b. Disagree
   c. Undecided
   d. Agree
   e. Strongly Agree

6. You like to read books by famous authors.
   a. Strongly Disagree
   b. Disagree
   c. Undecided
   d. Agree
   e. Strongly Agree

7. You check out a book from the library.
   a. Strongly Disagree
   b. Disagree
   c. Undecided
   d. Agree
   e. Strongly Agree

8. You like to share books with your friends.
   a. Strongly Disagree
   b. Disagree
   c. Undecided
   d. Agree
   e. Strongly Agree

9. You would rather read than get answers about books from someone else.
   a. Strongly Disagree
   b. Disagree
   c. Undecided
   d. Agree
   e. Strongly Agree

10. You like to read books that others enjoy.
    a. Strongly Disagree
    b. Disagree
    c. Undecided
    d. Agree
    e. Strongly Agree

11. You like to take your time when reading a book.
    a. Strongly Disagree
    b. Disagree
    c. Undecided
    d. Agree
    e. Strongly Agree

12. You read on a regular basis.
    a. Strongly Disagree
    b. Disagree
    c. Undecided
    d. Agree
    e. Strongly Agree

APPENDIX C

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Book Sharing Worksheet

Use this sheet to share information about the book that you read and use your book to fill in the information that follows. You may complete this sheet anytime before or after taking an Accelerated Reader quiz. You may choose a fiction or nonfiction book to read.

Your name_____**Date**_____

Title of book_____

Author_____

If you are reading a FICTION book, complete the following information.

Where does the story take place?_____

When does it take place?_____

Who are the main characters?(two or three are enough)_____

_____

Descibe what the main event or problem was in the story.

_____

_____

_____

If you are reading a NONFICTION book complete the following.

Describe what your book is about in a few sentences._____

_____

_____.

Describe some facts about the book you read._____

_____

_____.

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