DOCUMENT RESUME

ED 392 025 CS 012 360

AUTHOR Tillman, Gail
TITLE Will Implementing Reading Computer Assisted Instruction Compared to Traditional Reading Instruction Produce More Effective Comprehension at the Elementary School Level?
PUB DATE [95]
NOTE 81p.
PUB TYPE Reports - Evaluative/Feasibility (142) -- Tests/Evaluation Instruments (160)

EDRS PRICE MF01/PC04 Plus Postage.
DESCRIPTORS Comparative Analysis; *Computer Assisted Instruction; Grade 5; *Instructional Effectiveness; Intermediate Grades; Reading Achievement; *Reading Comprehension; *Reading Instruction; Reading Research
IDENTIFIERS New York (Brooklyn)

ABSTRACT

A study examined whether implementing reading computer assisted instruction compared to traditional reading instruction will produce more effective comprehension at the elementary school level. Subjects, 30 fifth-grade boys and girls in a low socioeconomic area of Brooklyn, New York, were divided into experimental and control groups. Subjects in the experimental group used a computer 1 day a week for 9 weeks to read and answer questions on reading passages. Subjects in the control group read and answered questions on reading passages using handouts. Results indicated that both groups increased their reading comprehension scores, and that no statistically significant differences in reading comprehension between the groups existed. Results also indicated that even though both groups had an overall positive attitude toward reading and computers, the experimental group's positive attitude seemed more definite. The implication for instruction is that if a group of students is given access to computer assisted reading instruction, reading scores and reading comprehension will increase. (Contains 37 references, 8 appendixes of data, and 4 survey instruments.) (RS)

Will Implementing Reading Computer Assisted Instruction Compared to Traditional Reading Instruction Produce More Effective Comprehension at the Elementary School Level?

byGailTillman

TABLE OF CONTENTS

Introduction

Since 1881, civil service jobs were assigned based on merit instead of political favors. Their personnel had to be tested in order to occupy the position. During World War I, pencil and paper tests began. The test was called Army Alpha. It was used to decide the promotability of the tested soldiers. The test was used to classify and rate, rank and assign the enlisted population. Their fate was sealed by this exam. In the 1920's, testing administrators found that multiple choice testing method could be applied to virtually every aspect of human nature, but especially in the measurement of educational achievement. According to Strommen (1994), technology and testing are a natural partnership. "The reason there are bubble sheets and No. 2 pencils in the first place is because they make machine scoring possible." (p. 48) After all these years, it is no wonder that we use tests to quantify our subjects. It is just natural. Now technology is being incorporated into our school system all across the country, but it is no longer just for marking tests. Technology can now be used to assist teachers in the classroom.

Almost every elementary school in the United States has a computer program. The students are receiving some type of computer instruction, whether it is pull out, lab or in class operational use. Great sums of money have been devoted to implementing computers into the primary school situation. Yet, according to Becker (1992), there has been little evidence of this investment paying off in improved student learning.

We have many people who are convinced that computers and their software are the answers to all of our educational problems. Computers can help in the office--bookkeeping; in the classrooms--pinpointing specific scholastic problems and correcting them, and even motivating the students to do tasks that they usually find mundane; but change is not easy to gain in the educational system.

Levinson (1990), suggested that there are four components that will facilitate effective change in the educational system. In order to change, researchers must identify the problem to be solved, be clear in decisions and obtain a consensus (negotiate), integrate the components of change because differing factions will have individual agendas and finally, administrators and teachers must develop new roles and responsibilities. (Balajthy, 1987)

If all these factors are handled, it is widely believed that computer assisted instruction will create significant increases in children's reading ability--especially comprehension. Yet different studies show conflicting findings--some show no significant difference; while others find significant change. There is conflicting evidence that will support either hypothesis.

Statement of Problem

Will implementing reading computer assisted instruction compared to traditional reading instruction produce more effective comprehension at the elementary school level?

Review of Literature

Bialo & Sivin (1990) stated "when the computer first became available to our nation's schools, some saw it as a magic cure for all that ails our educational system." (p. 4) This was an unrealistic view of things to come. Bracey (1992) stated that the people who saw computers as a magic cure have been "chastened by the predictions about what personal computers would do in education, are also reluctant to be enthusiastic about ILSs for fear of being burned again." (p.60)

Yet computer assisted instruction is being seen as quite motivational to students. Becker (1992) stated "motivation is key to learning, and perhaps the teacher's most critical job is to see that students are motivated to work on instructional tasks until they can accomplish the objectives he or she has set." (p. 9) Some people believe that with the proper motivation the "teachers" as we know them today will become extinct. One way in which the teacher can be "replaced" (supplemented) is found in a study by Stephenson (1992), which focused on 41 college level business statistic students. Subjects were randomly assigned by spreadsheet and computer experience. They formed dyads when working on their spreadsheets on the computer. In Dyads, functions of the teacher were taken over by the dyad partner! This suggests that at some levels of education a "teacher" may not be necessary.

Bolak (1985) stated "the computer adds another dimension to our activities and one that is greatly enjoyed if care is taken to avoid confusion and disappointment in the student." (p. 18) Irwin (1985) wrote about combining

reading, language arts, and computers. She supported Bolak's theory stating, "People read for information and enjoyment. If students get information and enjoyment when engaged in the reading process, they are learning to read and reading to learn." (p. 7) Yet Bolak went on to state that students should not rely solely on computers for their reading instruction because "too much computer instruction causes the motivational value to decrease." (p. 17)

Computer assisted instruction does allow students to progress at their own pace and allows them to make mistakes without their classmates being aware of it. Then these same students are able to realize and correct their errors without the risk of ridicule. To illustrate, Wepner (1989) did a study involving reading software. She concluded "the computer's ability to combine sound reading practices with non-threatening humanistic feedback in a pleasingly structured environment makes it ideal for students with reading problems." (p. 69)

Researchers have come to the realization that student learning partially depends on the expectations of the teachers, administration, society, family, etc. Brunner & McMillan (1994) suggest that we as educators must learn to "shift our focus from measuring student outcomes on standardized tests to investigating what teachers needed to make good use of the new technology to produce those student outcomes." (p. 22) Yet we need some type of instrumentation to measure, not only student progress but also our own effectiveness.

Researchers have been testing the effectiveness of computer assisted instruction in the area of reading since microcomputers have become available in the school setting. Yet there are constantly conflicting statements about their outcomes. In my quest as a researcher, I have found seven research studies that have found that computer assisted instruction makes no significant difference in their selected discipline. But I also found sixteen research studies that have found that computer assisted instruction does make a significant difference in many areas.

The studies that showed no significant difference are as follows: In 1984, Abram randomly selected 53 first grade students, out of a population of 103, to evaluate the effect of computer assisted instruction on phonics and mathematics. The study lasted twelve weeks with the control group receiving a traditional method of education, while the experimental group received three fifteen minute computer assisted reading sessions per week for a total of 486 minutes. Even though the entire experimental group scored higher than the control group, there still was no significant difference because they only scored marginally higher.

Jones (1993) and Hardman (1994) chose 30 third and 21 fourth graders. They targeted reading achievement, both groups used the Iowa's Test of Basic Skills for pretest and post test. Neither found a significant difference in the test scores after a year's exposure to computer assisted instruction.

In 1991, Decker designed an experiment to teach her subjects to read by interacting with the computer. She chose fourth grade students who were predominantly black, in an urban and rural setting. The subjects were pretested in vocabulary, reading recognition, and reading comprehension on two tests-- the MAT and CAT. She discovered a significant gain in language arts and spelling, but not reading.

In 1983, Pitts conducted a study that tested effectiveness of computer software in monitoring comprehension. He used two groups of fifth grade students. There were 40 subjects that were randomly selected from the population and then randomly assigned to either the control or experimental group. Each was shown identical passages. The control group was given written text. The experimental group had the passage displayed on the computer screen with comprehension strategies flashed to assist the students with the passage. When post tested, the experimental group utilized more of their newly discovered strategies yet there was no significant difference between the control and experimental groups scores.

Becker (1992) confirmed the fact that computer assisted instruction had a limited effect on the reading performance. What he did find that was interesting was that integrated learning systems work best for students in the upper group. And when the ILSs are well developed, they also help the students in the lower group. However, they are much less likely to help the students in the middle distribution of the class. These students, he reasoned, are less likely to need a

different level or pace of instruction compared to what they would receive in the traditional whole-class teaching.

In 1986, Zuk & Danner chose 55 third and fifth grade students to read two stories. The control group used regular written text and the experimental group used stories that were on the microcomputer. Even though the subjects preferred the stories to be on the microcomputer, it took longer to complete the task and once again there was no significant difference.

On the other hand, the sixteen research studies that support computer assisted instruction had different outcomes. They found that computer assisted instruction has a significant impact in different subject areas. Their findings were as follows: In 1991, Rhodes focused on English skills. The researcher randomly selected 211 English/Spanish bilingual fifth graders to teach irregular English verbs. They were divided into 4 treatment groups. The categories were as follow: V-visual group- received regular text with a drill and practice format on the computer, when tested the subjects were offered A or B multiple choice answers; V + E-visual and emphasis- received enhanced or highlighted text on the computer with A or B multiple choice answers; V + K-visual and kinesthetic- received the same format as V, but when tested these subjects were expected to spell out the entire answer; V + E + K-these subjects received the enhanced or highlighted text described in V + E, but they too were expected to type in their answers rather than the A or B response. Every group got identical material to master including the control group which consisted of students who did not receive any computer

assisted instruction at all. The researcher found that the V + K group scored the highest of all the groups. Therefore, she concluded that this was the most effective method of presentation. V + E had the second greatest difference, with V and V + E + K following in effectiveness. The V + K group was the only treatment group with a significant difference. But all scored significantly higher than the control group.

In the subject of Writing, Childers & Leopold (1993) selected 55 rural schools in West Virginia. The researchers chose to use The Appalachian Regional Commission/ International Business Machine Writing to Read. This program was designed to develop the writing as well as the reading skills of kindergarten and first grade students. It was implemented over a three year period. In essence, during this program approximately 7,000 students were served in these lab settings. When compared to kindergarten and first grade students who received no computer enhancement (WTR), the treatment groups had an increased motivation to write. The program improved their writing attitudes. (Erickson, 1989)

Becker (1990) conducted a two year study on the use of computer assisted instruction in mathematics. It was conducted by 47 teachers in 31 schools across 16 states. No exact data was at hand. Becker concluded that properly used computer assisted instruction could be beneficial in the area of math and in the performance on some standardized tests. (Kulik, 1981)

In the area of reading there were overwhelming resources that found a significant difference because of computer assisted instruction. Rupley & Chevrette

(1983), cited three reasons why students in computer assisted instruction reading programs often have higher achievement in reading than traditional reading students. The first reason is the care and skill with which the programs are designed for individualized instruction. The second is the motivational aspect offered by immediate feedback in computer assisted instruction. The final reason being that the students are actively engaged in the learning task.

In regard to the seventh grade, Salomon (1989) had a population of 74 students. These seventh grade subjects were housed in two separate classes, in Tel Aviv. The subjects had a middle to lower middle class economic status.
The students were randomly assigned to three treatment groups. They hypothesized, "computer tools that provide models, opportunity for higher level thinking, and metacognitivelike guidance can serve in a learner's zone of proximal development; they can develop competencies through internalization." (p. 620)
The first group of 25 was given 11 texts ranging from 150-350 words with accompanying metacognitive guidance to be responded to. The second group of 25 was given the same text accompanied by multiple choice factual and inferential questions. The third and final group of 24, had the same text accompanied by nothing. This was the control group. Each subject was pretested, randomly assigned to one of the three groups, as well as the day in the computer lab. The Israeli Standardized Reading Comprehension Test was used as the instrumentation of measurement. The results showed that the metacognitive group showed a significant difference over both the inferential/factual and control group. Salomon

stated, "Improvements in reading and writing were statistically accounted for by subjects ability for metacognitive reconstruction. The study reinforces previous findings pertaining to the role of metacognitions in reading and shows that well-designed computer tools can cultivate competence." (Arroyo, 1992).

On the sixth grade level. Williams (1993) conducted a study on 54 Chapter I students. The researcher implemented reading and math computer assisted instruction for these at-risk students. The subjects received two 20 minute sessions per week in a computer lab, 10 minutes in each subject. Computer Curriculum Corporation supplied the software. This CCC software "provided immediate feedback, allowed students to work and progress at their own level, varied the amount of response time, provided up-to-date analysis of individual and class progress." (p.15) Even though, the researcher found that there was little or no change in math; there was a significant difference in reading. (Forester, 1985)

On the third grade level, Shelton (1993) attempted to remediate four slow third graders by using computer assisted instruction. This researchers goals were to increase the subjects instructional reading level and comprehension: subjects will exhibit mastery in all areas; subjects will show increased motivation to read aloud. The subjects met three times per week over a twelve week period. At the end of the implementation period, the posttest was given. The posttest was given in two manners. The subjects read the material and the material was read to the subjects. Because of the subjects remedial problems, when they read the test

questions themselves they all scored lower than they had on their pretest; but when the test was read to them, each of the subjects scored higher than they had on the pretest. There was a significant difference.

On the fourth and fifth grade level, Boyer (1984) initiated a study done to increase comprehension by at least an entire grade level. The subjects were fourth and fifth grade students. There were 35 regular students and 19 computer students in the sample. Out of this population, three groups were created. There were two groups of 7 fifth grade students and 5 fourth grade students which made up the experimental or CAI students. This group worked on the computer 35 minutes each week and 35 minutes in the accompanying workbook. This gave them a total of 14 hours extra reading comprehension experience over a three month period. Thus, the emphasis was on the computer, not the amount of time allotted to computer use. When the time factor is delineated it comes to approximately 70 hours a week or less than 15 minutes per day. This minute amount of time spent on the computer eliminated time as a variable in this study. While the control group received the traditional reading instruction with no extra reading lessons. The "Reading Comprehension" and "Our Weird and Wacky World" were the programs utilized. She showed a significant increase in comprehension skill. There was an average gain of 1.5 year increase in the post test scores.

On the fifth and sixth grade level, Reinking (1988) randomly selected 33 boys and girls. The sample was racially heterogeneous. The CAT pretest scores ranged from 3rd to 95th percentile with a normal distribution. Below the 50th

percentile was considered a poor reader; there were nineteen of them with a mean score of 29.5. The 50th percentile and up were considered good readers; there were fourteen of them with a mean score of 68.2. Each group was given six 140-180 word passages with six-item multiple choice tests. There were four different scenarios. The first was off-line, printed text. The second was on-line with no assistance options. The third was on-line with free choice of options. The fourth and final group was on-line with automatic assistance options. The better readers continued to be the most successful readers. The results indicated that the subjects achieved higher comprehension scores when the computer offered optional or mandatory assistance rather than when they read passages without any assistance. This study exemplifies how CAI may increase comprehension on standardized reading tests.

Many researchers have found that computer assisted instruction does not necessarily have a positive effect on the reading comprehension skills of an elementary school student. However, the overwhelming majority indicate that this method of instruction does create significant differences.

Statement of Hypothesis

Implementing reading computer assisted instruction will produce more effective comprehension than traditional reading introduction, exhibited by increased reading test scores on the Degrees of Reading Power test, at the elementary school level.

Methods

Subjects

The subjects are 30 fifth grade boys and girls. They all live in a low socioeconomic area in Brooklyn, N.Y. The subjects are 36.6% Hispanic--Puerto Rican or Dominican, 11 out of 30. The other 63.4% are Black--African American. African or Caribbean-Jamaican, Guyanese, Cayman, or Haitian, 19 out of 30. Their pretest raw scores range from 21 to 54 out of 70 questions. A student with a raw score of 42 is considered to be on grade level; therefore, there were nine subjects on or above grade level and twenty-one below. There were four boys on or above grade level and nine below. There were five girls on or above grade level and twelve below.

Most of the subjects have had limited previous computer contact. The school had a computer lab two years ago; therefore, in the third grade most of the subjects visited the lab. The lab consisted of 17 Apple IIe's. This lab seemingly was a dinosaur's resting place because there were constant problems with the hardware. The software seemed to be antiquated as well. The lab was open to each class once a week for one 45-minute period for two consecutive years. For most of these subjects, this was the only contact they have had with computers. Yet there were seven subjects who did not have computer lab. Perhaps they did not attend this school that particular year. Two of those seven subjects had access to a computer at home. Therefore, there were only five students who had no computer

experience at all. Though eight students have access to a computer at home, none in the entire population considered himself or herself anything more than a beginner.

The subjects included 27 of my assigned students and 3 volunteers from the other fifth grade class. There are 15 students in the population that are involved in the Chapter One Reading Lab on a daily basis. One girl is part of the ESL (English as a Second Language) program and two girls are in Resource Room. The thirty students were pretested by an objective practice Degrees of Reading Power (DRP) reading test. The raw scores ranged from 21 to 54 correct responses out of a possible 70 questions. Those scores were used to implement the matched pairs system of grouping. This technique entailed the researcher matching as closely as possible the highest to the lowest scoring students. I began by rewriting the scores on small pieces of paper. This allowed me to manipulate the groups without the knowledge of who the students were. As the researcher, I took any grade that appeared at least twice and assigned that slip of paper to one of two groups. After all duplicated grades were assigned, I took the remaining grades to run a total on them. Next I divided the sum by two; then using that quotient I picked up the remaining grade slips to the desired total without exceeding 15 students. When the quotient total and the correct number of subjects had been reached; it was simple to combine the new group with either one of the duplicate groups. At the end, the groups had a sum of scores that totaled 570 and 571. This enabled the

researcher to make the groups as equal as possible, matched groups, without excluding the bottom scoring group. Next I went back to the actual pretests and formed my groups by matching the scores with the appropriate names. Finally, a coin was tossed to randomly decide which group would receive computer assisted reading instruction. The randomization process is very necessary to eliminate the possibility of sample bias.

DEMOGRAPHIC SURVEY

SAMPLE (30)		CONTROL (15)		EXPERIMENTAL (15)	
BOYS	GIRLS	BOYS	GIRLS	BOYS	GIRLS
13	17	7	8	6	9

AGES			AGES			AGES		
9 YRS	10 YRS	11 YRS	9	10	11	9	10	11
6	21	3	5	9	1	1	12	2

READING LEVEL		READING LEVEL		READING LEVEL	
ON/ABOVE	BELOW	ON/ABOVE	BELOW	ON/ABOVE	BELOW
9	21	5	10	4	11

COMPUTER EXPERIENCE			COMP. EXPER.			COMP. EXPER.		
LAB	HOME	NONE	LAB	HOME	NONE	LAB	HOME	NONE
23	6	5	11	3	3	12	3	2

LANGUAGE AT HOME					LANG AT HOME							LANG AT HOME						
SPAN/ENG/FREN/AFR/SE					S	E	F	A	SE	FE	AE	S	E	F	A	SE	FE	AE
2	19	1	1	7	0	11	0	0	3	1	0	2	8	0	0	4	0	1

SCHOOL LUNCH		SCHOOL LUNCH		SCHOOL LUNCH	
PAID	FREE	PAID	FREE	PAID	FREE
0	30	0	15	0	15

TESTED LAST YEAR		TEST LAST YR		TEST LAST YR	
ATTENDED	ABSENT	ATT	ABS	ATT	ABS
28	2	15	0	13	2

*School Lunch indicates socioeconomic status

**Tested Last Year indicates availability of pretest scores

***Languages Spanish (S), English (E), French (F), African Dialect (A), Spanish/English (SE), French/English (FE), African/English (AE)

This demographic survey data indicates that both the control group and the experimental group are relatively equivalent in all ways. The ratio of boys to girls is 7:8 in the control group and 6:9 in the experimental group. The student's reading level was 5:10 and 4:11. The first number indicates how many of the students were on reading level. In the area of computer experience, 11 of the control group students had lab prior to this study, while 12 of the experimental group students had the same prior knowledge. In both groups 3 students implied that they had access to a computer at home. Three students in the control group had never had any prior contact with a computer; two of the experimental students had a similar situation. Both groups were predominantly English speaking though each group had incorporated bilingual lifestyles. Every single student involved in the study received free lunch; this indicates, on paper, that all these students are from indigent households.

The only two major differences between the two groups were exhibited in the ages of the subjects. The control group had five 9 year old subjects; the experimental group had only one 9 year old. The control group had a mean age of 9.33 and the experimental group's mean age was 10.07. By the time the posttest is given, all but one of the subjects will be at least 10 years old. The other difference was in whether or not they were tested last year. The sample population had only two new admits, both of which randomly were assigned to the experimental group.

Setting

The experimental subjects used the computer software one day a week, either Monday, Tuesday or Friday for a total of nine weeks. Because there is no longer a computer lab in this school, the subjects must use the software in the classroom. The school's computers, which happened to be the antiquated Apple IIe. had to be shared throughout the school. My room was designated only one machine. I went into the old lab and took pieces of "broken" computers and created another computer. I might have been able to piece together another one, but the room only has one outlet and there was only two discs available on grade level. Therefore, on Mondays, Tuesdays and Fridays, the experimental subjects, two by two, are allowed to utilize the computers which are located in the front of the classroom. Meanwhile, the other students are doing reading comprehension skills in text form utilizing pencil and paper, doing dictionary skills or finding synonyms for their vocabulary words.

Instruments

The instrument used to measure the achievement level in the groups will be the Degrees of Power Reading Tests (DRP). The DRP Test is a cloze test, where some of the words are omitted from the selections, the subject must read. The subject's job is to fill in the missing words. In each case, the subject is given five words to choose from. Usually, more than one word could conceivably be used in the blank, but only one makes sense in the selection. The previous year's results, on the DRP, will be used as the pretest. After the study is completed, the current year's results

will be used as the posttest to measure the effectiveness of the technological intervention.

The MMY (Ninth Edition, 1985) stated that there was a reliability problem with the DRP test. The problem was the acquisition of a technical manual. The MMY stated "its more general absence keeps most of the available evidence on DRP reliability and validity out of the hands of potential DRP users. Even recognizing that the DRP has had a multi-year and painstaking developmental history that the manual attempts to capture, the situation is clearly inappropriate for a test that is being widely marketed." (p.443) Even though there is a problem with availability in the draft form, according to MMY, the DRP data indicates that the reliability is generally good. In other words, if a similar test were given, the results would be very close to the same.

Due to this aforementioned problem of acquiring the technical manual, this researcher has opted to set the passing grade on the practice DRP test. Because the practice test had 70 questions and 42 out 70 is 60%, the researcher used this as the cut off point. Therefore, any subject that had a raw score of 42 or above would be considered, for this experiment, on or above grade level.

The DRP test has high correlations between itself and the results on the California Achievement Test (CAT) and the Word Completion Test (WCT). The DRP test can be used to predict with relatively reasonable accuracy the scores on the

CAT and the WCT. The results on the DRP are directly related to "the degree of match or mismatch of curriculum materials readability with the reading ability in the classes. (p.443-444)" (See Appendix m)

Design

The design chosen in this experiment is called the pretest-posttest control group design. More commonly identified by the following symbols.

C R:O X O

E R:O X O

The C represents the "C" in control or the control group. The E represents the "E" in experiment or the experimental group. The "R" represents the "R" in random which is the method by which each group has been selected. "O" represents the outcomes; the first "O" represents the pretest outcome and the second "O" represents the posttest outcome. "X" represents the treatment or whatever changes that are being made in the traditional style of instruction.

The Pretest Posttest Control Group Design was the method chosen in this study because it has far more positive aspects than other designs and the information necessary to utilize this design was easily accessible. One major drawback to this design is the testing effect. The testing effect can be described as the advantage the subject may obtain because he or she knows what is being tested, because of pretesting. That is the main reason for allowing a two week

break between the pretest and the actual implementation of this study. The subjects were unaware that they were being used in a study; therefore, that alleviated any stress involved in the experiment. It also eliminated the John Henry Effect.

The subjects were not chosen randomly. I chose to use my assigned class because it would not cause an inconvenience to anyone involved in this experiment. But the groups were matched so that they would be as equivalent as possible at the onset of the experiment. If random group assignment were used there might not be initial equivalent group scores, which may lead to more sample bias. Therefore, once the groups were assigned there was random assignment of treatments, the groups were randomly selected to be either control or experimental groups.

Procedure

The subjects were pretested, the practice test was scored, and the raw scores were made available to the researcher. The subjects were assigned to the researcher so that as little inconvenience as possible would be created to all persons and personnel involved. The object was to begin this study with two equal groups; therefore, the groups were created using raw score grades as the criteria in the manner mentioned earlier, matched pairs. If random group assignment was used, there might not be initial equivalent groups, which could definitely be considered sample bias. Once the groups had been assigned, a coin was tossed to

decide which group would be the control group in contrast to the experimental group. The experimental group had access to the computer once a week. They were not timed; each subject was instructed to read three passages per week until all three levels were complete. In total, the treatment was implemented over a nine week period.

Reading for Comprehension, Level D, a Continental Press Corporation product is used for this study. This software contains a direction's section, which defines the six major comprehension skill areas. These areas consisted of the following: 1) Understanding the Main Idea, 2) Remembering the Details, 3) Deciding on Your Own-Inference, 4) Remembering Time Order, 5) Joining Cause and Effect and 6) Fact or Opinion.

At the end of each reading passage there were six questions that were from each of the aforementioned categories. If the student answered the question correctly, the computer would respond with positive feedback. If the student answered incorrectly, the computer would allow them to reread the article or it would direct them to the specific area that held the clues to the answer by highlighting those specific sentences. If the subject was still unable to answer correctly, the computer would tell them the answer. At the end of the questions, if the subject has answered five out of six correctly, the computer would give him/her a bonus which is a game that involved completing an analogy statement. It would allow the subject to play an educational game for 10 seconds. If the subject answered all of the questions correctly, the subject would be allotted 25

seconds of bonus time. Accomplishing this feat, would signify that the subject understood what he or she had read. If all of these areas are mastered, increased comprehension is inevitable.

The computer has a management system that the researcher has access to. At any given time the progress of the subject is but a few pushes of a button away. Each subject's strengths and weaknesses are displayed individually or grouped by the skill that has not been mastered. It also divides the results by level. So you can see whether the subject is gradually mastering any given skill.

Comprehension means "understanding." Good readers comprehend what they read. This program claims that you can become a better reader as you go through this program and focus on understanding. The selections became more and more complicated.

Contrary to the experimental group, the control group had traditional text. Each subject was given handouts to read once a week. After reading the passage, the student was expected to respond to six relative questions. The five questions stressed five comprehension skills and the sixth question had them engaged in higher order thinking skills. The five comprehension skills were as follows: 1) Recalling Details, 2) Using Context Clues, 3) Recognizing the Main Idea of a Paragraph, 4) Completing an Analogy Statement and 5) Understanding Multiple-Meaning Words, Making Valid Inferences, or Applying Classification Skills. After the subjects read and answered the related questions, the handout was collected and corrected by the researcher. The following week, the control group read the

handout aloud and the correct answers were discussed. It was the researcher's responsibility to monitor the progress of the control group deciding which types of questions appeared to give which subjects the most problems. When the control group reread the materials, the researcher would select the subjects who previously had trouble with a specific type of question to answer that specific type of question. This continued over the same nine weeks that the experimental group was engaged in their portion of the study.

The control group read five passages each week over a nine week period, while the experimental group completed an average of 27 articles during the same period.

Results

Table 1
Means, Standard Deviations, and t Tests for the Experimental and Control Groups Reading Comprehension Scores

Test	Experimental	Control	t
(Pretest)			
M	38.07	38.00	
SD	7.49	8.12	-0.02*
(Posttest)			
M	47.07	45.07	
SD	8.78	9.65	0.59**

Note: Maximum score for posttest= 70
n= 15 for each group
*p>.05. **p>.05.

The table on the previous page shows the means, standard deviation, and 't' test for the Reading Comprehension raw scores affiliated with this study . The pretest data was as follows: the experimental group had a mean score of 38.07; the control group had a mean score of 38.00. The experimental group had raw scores that ranged from 21-52 producing a standard deviation of 7.49. The control group's raw scores ranged from 27-54 with a standard deviation of 8.12. This mean scores differed by (.07) seven hundredths of a point. While the standard deviation differed by (.63) sixty-three hundredths of a point. This generated a 't' value of (-0.02) or negative two hundredths. This indicates the near equivalency of the two groups.

After the implementation of the treatment, the pretest and posttest grades for the experimental group were compared. The pretest mean score was 38.07 with a standard deviation of 7.49; the posttest mean score was 47.07 with a standard deviation of 8.78. There was a nine point increase in mean scores. The scores range changed from 21-52 on the pretest to 28-65 on the posttest. The actual range changed from 31 to 37 points a difference of 6 points; the standard deviation increased by 1.29 points which indicates that after implementation the grades increased an average of nine points and the disparity of grades increased as well.

The final analysis was the comparison of the dependent variables. The mean posttest scores of the experimental group was 47.07 as compared to the mean posttest scores of the control group which was 45.07. The difference between the

two groups is that the experimental group scored two mean score points higher than the control group. There was little difference in the mean scores and the 't' test score for the posttest entries was 0.59. This indicates that there was no significant change in the difference of mean scores; therefore, the hypothesis was not supported.

Attitude Survey: The Attitude Survey used to assess how the subjects felt about the two instructional methods used a Likert Scale to measure the results. The responses on the survey were Strongly Agree, Agree, Don't Know, Disagree and Strongly Disagree. Each response was given a numerical value ranging from one to five points respectively. If when the final scores are tallied, the subjects that scored 26-50 points were considered to have a negative attitude toward reading and computers. Whereas, if the scores were between 0-25, these subjects would be considered to have a positive attitude. When the actual scores were tallied, the majority of the subjects had a positive attitudes toward reading and computers in both groups. The control group had eleven subjects that had positive attitudes and four that had negative attitudes. The experimental group had ten subjects with positive attitudes and four negative. One subject was lost to mortality at this point of the study.

At first glance, it seems that these two groups are very close in scoring, but when the group scores were counted the difference showed. The control group had

a total of 374 point in comparison to the experimental group's 335. While the control group seemed to score close to the experimental, 11:4 and 10:4 respectively, the control group had overall higher scores. Their scores ranged from 18-33, but only two subjects scored 20 or below and three scored above 30.

Whereas, the experimental group's scores ranged from 17-36, four subjects scored under 20 and only two scored above 30. Even though both groups had an overall positive attitude toward reading and computers, the experimental group positive attitude seemed more definite.

Discussion

The researcher's hypothesis was that with the implementation of treatment the experimental group would produce a more positive difference than traditional reading instruction, exhibited by reading comprehension test scores at the elementary school level. The statistics related to this particular study do not confirm this hypothesis. The statistics imply that both groups increased their scores, while in actuality only two subjects scored lower than they had on the pretest. Both of the lowered scores were from the control group. The boy who scored lower dropped two raw score points; however, the girl, who happened to be the ESL student, dropped 13 raw score points. As researcher, this was expected for both these students. The boy, along with several other control group students, had begun to draw on his handouts. This was an indication that he was no longer interested and was not concentrating. Meanwhile, the female subject's weekly

reading grades had gotten worse since the beginning of the study. It was hard to tell whether or not she was even reading the material before answering the questions because she was consistently getting so many wrong.

Meanwhile, every single student involved in the experimental computer assisted instruction group scored higher than he or she did on the pretest. The smallest increase being three raw score points and the largest being twenty raw score points. Meanwhile the control group who simply read text and answered six questions related to comprehension also showed an overall improvement as well, even though two subjects scored lower on the posttest than the pretest. The experimental group had a nine point average increase; the control group had only a seven point average increase. It is obvious that the experimental group scored higher than the control group, but the difference was ever so slight. In accordance with the 't' test, the post test scores had a 't' value of 0.59, which indicates that there was not a significant difference in the posttest scores. There were increases shown in the experimental posttest mean scores. But because of the increase in the control group mean scores, the experimental score increases were not significant by 't' test qualifications. What is impressive is that every single subject in the experimental group had an increase. The increase is indicated in raw score points, not percentage points. If it were transferred to percentage points the average score would increase almost fifteen points.

At this point, a non-independent 't' test was calculated to see if the experimental group's increase in raw scores was actually significant. (see appendix g) The findings were consistent with the independent 't' test calculations; once again they were insignificant. This indicates, to this researcher, that in order to have 't' test significance, there must be huge increases. Obviously an average increase of nine points is not enough.

Even though sixteen out of twenty three of the literature review resources supported the original hypothesis, this study was consistent with the other seven resources in different diversified areas of study--Abram (1984), Jones (1993), Hardman (1994), Decker (1991), Pitts (1983), Becker (1992), Zuk & Danner (1986). Abram (1984), Jones (1993), and Decker (1991) all conducted studies utilizing subjects similar to this study, though their focus was on phonics and math, writing to read and language arts, spelling and reading, respectively. Pitts (1983), Becker (1992), Hardman (1994) and Zuk & Danner (1986) all did their studies in the same content area as this study. Their studies either had demographics or grade level information which was similar to this study. Each of these seven research studies implemented computer assisted instruction into their setting and found no significant difference in their posttest scores. The results indicated that the training utilized by the experimental groups did not produce a great enough gain in the tested skill area to be considered statistically significant.

Because the subjects were not randomly selected from a greater population, there are many limitations to the external validity of these findings. The subjects

of this study were assigned to the researcher and therefore do not in any way represent the total population of the school, county, city, state or country. It would be difficult to generalize these findings to a larger population, though other studies have been able to do so.

Another external problem may have been the size of the group. It is difficult to generalize to a large population the results of this study because of the many variables that relate to just this population. You may be able to generalize these results to a population that is very close to the demographic makeup of these subjects. But another sample may have a totally different result due to other variables that do not apply to these subjects.

Let us not forget the limitations associated with the small amount of time in which this study was implemented. These limitations present problems with internal validity. Because the entire study was done in a ten week period, nine weeks of implementation, there is the possibility of the testing effect entering into the equation. That is when the subject's pretest and posttest are so close together that the subject has an idea of what the researcher is after and gives him what he wants.

The implication for instruction is that if a group of students are given access to computer assisted reading instruction, they will increase comprehension and reading scores. Other teachers should adopt this method of reading instruction if it is at all possible. It is not an expensive means of teaching reading, but it can be quite beneficial to the students. Remember every single student made increases

that range from 3 to 20 raw score points or 4.26 to 28.4 percentage points, with an average of 12.78 percentage points. What was most obvious was the fact that the experimental group was highly motivated. If any subject was absent during his turn on the computer, he was adamant about making me aware of the fact. While the control group would sigh whenever I began to hand out its text. The motivational aspect is one of great importance to every educator. It could possibly be this motivation that caused the increases in the scores. Because the increases made by these subjects was not 't' test significant, motivation could be the cause for the increases. Unless the results are 't' test significant, the increases may be attributed to any number of variables.

One implication for researchers is that this same experiment would have greater significant changes if the hardware and software were not so antiquated. Because the hardware is so old-fashioned, it limits the amount and type of software available to this researcher. The software had its own limitations. Whenever the student did not score well on a particular type of article or level, it gave the user an option which would explain or define what the skill was and give an example. But if there were still difficulties in that area when the student went back to get the additional help he or she was faced with the same example time and time again. They knew the answer from the last time; therefore, it was no help at all. If there had been a series of examples that they could have practiced with, there probably would have been even larger increase in the computer assisted instruction group.

For future researchers interested in doing this experiment, it is this researcher's suggestion that the control group be given less text per week. Because of the immediate feedback that the experimental group was getting, this researcher thought that the control group should have extra text to practice on to improve their skills. The control group had to wait anywhere up to 4 days to receive the results from their reading passages-- feedback. The experimental group read three articles per week on computer, while the control group read five articles per week over the nine week implementation period. If the researcher had given the control group three passages per week, just like the experimental group had, the final results may have been different and possibly significant.

Though most researchers at this junction, with no significant difference in scores and 't' values, would not recommend this form of reading to be implemented in the future, I would not agree. It is this researcher's recommendation, that in the future, implementation of this method of reading instruction should still be considered for most children. The motivational level alone is reason enough, but also the individual rate of progress is great because children get to work at their own pace without any negative feedback from their peers. Even the most limited children in the experimental group made progress. The better readers may be given the opportunity to surpass what would be given in group instruction, because most instructors teach to the mid level or bulk of their students. A child in the upper portion of the class is sometimes thwarted. When using computers those children's needs are met as well. They may leave their grade level and go on to the

next. The possibilities are endless. Though this particular study did not show 't' test significance, this researcher will not suggest throwing in the towel because there was definitely a significant change in their motivation and all the experimental subjects made some type of progress.

REFERENCES

Abram, S. L. Ed. D. (1984). The affect of computer assisted instruction on first grade phonics & mathematics achievement computation. ERIC DOC 251814

Arroyo, C. (1992). What is the effect of extensive use of computers on the reading achievement scores of seventh grade students?. ERIC DOC 353544

Balajthy, E. (1987). What does research on computer-based instruction have to say to the reading teacher?. Reading Research and Instruction v. 27(1), 54-65

Becker, H.J. (1990). When powerful tools meet conventional beliefs and institutional constraints: National survey findings on computer use by american teachers. report no. 49. ERIC DOC 337142

Becker, H.J. (1992). Model for improving the performance of integrated learning systems?. Educational Technology, 6-15

Becker, H.J. (1992). Computer based integrated learning systems in the elementary and middle grades- a critical review and synthesis of evaluation. p. 1-41 ERIC DOC 446212

Bialo,E., Sivin J. (1990). Report on the effectiveness of microcomputers in schools: Overview. ERIC DOC 327177

Bolak, G. (1985). The effective use of computers in the reading curriculum. ERIC DOC 357047

Boyer, N.W. (1984). Reading comprehension and the computer. ERIC DOC 312608

Bracey, G.W. (1992). The bright future of integrated learning systems. Educational Technology, 60-62

Brunner, C., & McMillan, K. (1994). Beyond tests scores. Electronic Learning, 22-23

Childers, R.D., & Leopold, G.D. (1993). A followup study of the arc/ibm writing to read project in kentucky, virginia and west virginia final report, 1-17 ERIC DOC 363474

Decker, B. (1991). Early literacy instruction with computers and whole language: An evaluation of the writing to read computer program with disadvantaged minority children. ERIC DOC 335635

Ekman, B. (1988). How to start a computer literacy program in an elementary school. Phi Delta Kappan, 78-79

Electronic Learning Special Edition (1992) Turned on to reading & writing, 12-18

Erickson, B.G. (1989). We can do--22 percent better: computers and the writing process. ERIC DOC 347522

Forester, N. (1985). The use of computers in the reading program a district approach. ERIC DOC 357047

Hardman, R. (1994). The effect of CAI on reading achievement. ERIC DOC 373311

Irwin, M. Dr. (1985). Reading and computers: A partnership. ERIC DOC 357047

Jones, Z. (1993). Writing to read: Computer-assisted instruction and reading achievement. ERIC DOC 365980

Kulik, J.A. (1981). Integrating findings from different levels of instruction. ERIC DOC 208040

Levinson, E. (1990). Will technology transform education or will the schools co-opt technology? Phi Delta Kappan, 121-126

Ninth Mental Measurement Yearbook. (1985) University of Nebraska--Lincoln, Nebraska. Volume 1, no. 1-713

Novak, D. (1985). Computerized comprehension. ERIC DOC 357047 ,14-16

Pitts, M.M. (1983). Comprehension monitoring: Longitudinal unobtrusive measurement with microcomputers. ERIC DOC 233309

Reinking, D. (1988). Computer-mediated text and comprehension differences: The role of reading time, reader preference, and estimation of learning. Reading Research Quarterly v23 (4), 484-498

Rhodes, F.G. (1991). Improving teacher prepared computer software for better language teaching/learning. ERIC DOC 343433

Rupley, W.H., Chevrette, P. (1983). Computer assisted reading instruction: A promising tool for enhancing teacher effectiveness. Reading World, 236-239

Salomon, G. (1989). The computer as a zone of proximal development: Internalizing reading-related metacognitions from a reading partner. Journal of Educational Psychology v.81 (4), 620-627

Shelton, D. (1993). Computerized reading instruction for remediating deficiencies of slow learners: Our forgotten at-risk elementary students. ERIC DOC 369040

Sherry, M. (1990). Implementing an integrated instructional system: critical issues. Phi Delta Kappan, 118-119

Stephenson, S.D. (1992). The effects of student-instructor interaction on achievement in a dyad computer-based training environment. ERIC DOC 362245

Strommen, E. (1994). Can technology change the test? Electronic Learning, 44-49

Turned on to Reading & Writing. (1992). Electronic Leaning Special Edition, 12-18

Wepner, S.B. (1989). Stepping forward with reading software? Journal of Reading, Writing, and Learning Disabilities International. v. 6, 61-83

Williams, G.R. (1993). Efficacy of computer assisted instruction in the areas of math application and reading comprehension. ERIC DOC 371752

Zuk, D., Danner, F. (1986). The effects of microcomputers on children's attention to reading tasks. ERIC DOC 272859

APPENDIX

a. Pretest Control Scores and Standard Deviation

b. Pretest Experimental Scores and Standard Deviation

c. Pretest "t" Test

d. Posttest Control Scores and Standard Deviation

e. Posttest Experimental Scores and Standard Deviation

f. Posttest "t" Test

g. Experimental Non-Independent 't' test and scores

h. Perfect Table

i. Demographic Survey

j. Attitude Survey

k. Pretest

l. Posttest

PRETEST SCORES
(CONTROL)

01. 27
02. 28
03. 31
04. 32
05. 33
06. 35
07. 34
08. 34
09. 39
10. 40
11. 42
12. 43
13. 47
14. 51
15. 54

STANDARD DEVIATION FOR SAMPLES & POPULATION

Statistic	Value
Number of scores	15
Sum of scores	570.00
Mean	38.00
Sum of squared scores	22584.00
Sum of squares	924.00
Standard deviation for population	7.85
Standard deviation for sample	8.12

a

PRETEST SCORES
(EXPERIMENTAL)

01. 21
02. 29
03. 33
04. 36
05. 35
06. 34
07. 37
08. 39
09. 40
10. 40
11. 41
12. 42
13. 45
14. 47
15. 52

STANDARD DEVIATION FOR SAMPLES & POPULATION

Statistic	Value
Number of scores	15
Sum of scores	571.00
Mean	38.07
Sum of squared scores	22521.00
Sum of squares	784.93
Standard deviation for population	7.23
Standard deviation for sample	7.49

b

Pretest t-Test for Independent Samples

Statistic	Value
Number of scores in group one (control)	15
Sum of scores in group one	570.00
Mean of group one	38.00
Sum of squared scores in group one	22584.00
SS of group one	924.00
Number of scores in group two (experimental)	15
Sum of scores in group two	571.00
Mean of group two	38.07
Sum of squared scores in group two	22521.00
SS of group two	784.93
t-Value	-0.02
Degrees of freedom (df)	28

c

POSTTEST SCORES
(CONTROL)

01. 36
02. 44
03. 49
04. 53
05. 41
06. 52
07. 52
08. 51
09. 54
10. 34
11. 48
12. 44
13. 49
14. 51
15. 18

STANDARD DEVIATION FOR SAMPLES & POPULATION

Statistic	Value
Number of scores	15
Sum of scores	676.00
Mean	45.07
Sum of squared scores	31770.00
Sum of squares	1304.93
Standard deviation for population	9.33
Standard deviation for sample	9.65

d

POSTTEST SCORES
(EXPERIMENTAL)

01.	40
02.	28
03.	36
04.	39
05.	47
06.	49
07.	48
08.	47
09.	48
10.	47
11.	51
12.	52
13.	65
14.	54
15.	55

STANDARD DEVIATION FOR SAMPLES & POPULATION

Statistic	Value
Number of scores	15
Sum of scores	706.00
Mean	47.07
Sum of squared scores	34308.00
Sum of squares	1078.93
Standard deviation for population	8.48
Standard deviation for sample	8.78

e

Posttest t-Test for Independent Samples

Statistic	Value
Number of scores in group one (control)	15
Sum of scores in group one	676.00
Mean of group one	45.07
Sum of squared scores in group one	31770.00
SS of group one	1304.93
Number of scores in group two (experimental)	15
Sum of scores in group two	706.00
Mean of group two	47.07
Sum of squared scores in group two	34308.00
SS of group two	1078.93
t-Value	0.59
Degrees of freedom (df)	28

Pretest Scores	Posttest Scores
34	40
21	28
29	36
33	39
40	47
35	49
40	48
39	47
37	48
36	47
41	51
42	52
45	65
47	54
52	55

t-Test for Non Independent Samples

Statistic	Value
Number of pairs of scores	15
Sum of "D"	135.00
Mean of D's	9.00
Sum of "D squared"	1443.00
t-Value	8.637
Degrees of freedom (df)	14

Results

Table 1
Means, Standard Deviations, and t Tests for the Experimental and Control Groups Reading Comprehension Scores

Test	Experimental	Control	t
(Pretest)			
M	38.07	38.00	
SD	7.49	8.12	-0.02*
(Posttest)			
M	47.07	45.07	
SD	8.78	9.65	0.59**

Note: Maximum score for posttest- 70
en- 15 for each group
*p>.05. **p>.05.

h

DEMOGRAPHIC SURVEY

Please answer every question as honestly as possible.

NAME: _____

AGE: _____

SEX: M _____ F _____

RACE: Caucasian _____ African-American _____ African _____

Haitian _____ Dominican _____ Puerto Rican _____

Chinese _____ American Indian _____ Caribbean _____

LANGUAGE SPOKEN HOME: English _____ Spanish _____ Creole _____

Chinese _____ French _____ Other _____

FREE LUNCH: Yes _____ No _____

TESTED LAST YEAR: Yes _____ No _____

COMPUTER LAB: (Have you ever had lab in school?) Yes _____ No _____

COMPUTER HOME/ACCESSIBLE:

(Do you have a computer at home?) Yes _____ No _____

If you have access, how often do you use it? _____

What is your estimated level of expertise?

Beginner _____ Intermediate _____ Advanced _____

*FREE LUNCH WILL INDICATE SOCIOECONOMIC LEVEL

**TESTED LAST YEAR TELLS WHETHER PRETEST SCORES ARE AVAILABLE

ATTITUDE SURVEY

NAME _____ Total _____

Below you will find ten statements. Please read each carefully and answer them as honestly as possible. The scale used to respond to the statements is directly below the statements themselves. Please write the code next to your response on the first line next to each statement. The codes are a follows: for Strongly Disagree write SD, Disagree write D, Don't Know write DK, Agree write A, and Strongly Agree SA. After responding to all the questions please assign a number value to each response in accordance to the Likert Scale at the bottom of this page in the second blank space.

	Code	Numbers
1. I like going to school.	_____	_____
2. I like to read.	_____	_____
3. I like to work on computers.	_____	_____
4. Reading is my favorite past time.	_____	_____
5. Doing projects on-line is great fun.	_____	_____
6. I like to visit the library.	_____	_____
7. I help people when they get stuck on the computer.	_____	_____
8. I help younger children with their reading.	_____	_____
9. I can run different software programs.	_____	_____
10. I like learning new things in school.	_____	_____

S D-5 points D-4 points D K-3 points A-2 points S A-1 point

**Add all the points together and enter total on the line at the top of the page.

Student Booklet **Level E** **Form 1**

COMMUNITY SCHOOL DISTRICT
THIRTY-TWO

FELIX R. VAZQUEZ
COMMUNITY SUPERINTENDENT

32

CLOZE READING MANAGEMENT SYSTEM

To the Teacher:

You must read this before administering this CRMS test.

Important: Use only #2 black lead pencil on answer cards

1. **Fill in both sides of the CRMS Answer Cards completely**. Make sure that the student identification numbers are entered and the corresponding circles are completely filled in on the Answer Cards.

2. **Once your students have finished taking this test...** Make sure that the appropriate response circles are completely filled in. Collect the answer cards and rubber band them.

3. **Return the Answer Cards to us with a copy of the CRMS Teacher Record Form.** Make sure you indicate the level and grade on the CRMS Teacher Record Form. Rubber band the cards.

4. The Answer Cards from each class must be rubber banded separately.

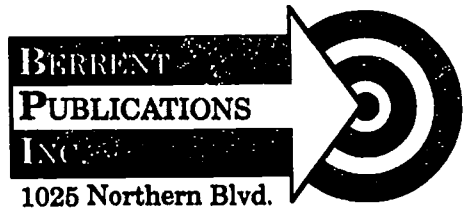
5. Make sure there are no stray marks on answer card.

Call us immediately if a problem arises.
(516) 365-4040

BERRENT PUBLICATIONS INC.
1025 Northern Blvd.
Roslyn, NY 11576
1-800-74-LEARN

Arthur Hirshon & Edith Hirshon

Second Printing 1994



1025 Northern Blvd.
Roslyn, NY 11576
(516) 365-4040
1-800-74-LEARN

CLOZE READING MANAGEMENT SYSTEM (CRMS)

To The Teacher:

1. Have students fill out non-test-related information on the back of the CRMS Computer Score Card (or you can duplicate the Student Answer Sheet on page 23 of the CRMS Manual).

2. Administer the test to the entire class under *untimed* testing conditions within one sitting.

3. The students are <u>not</u> to write in the test booklets. They are to write their answers on the CRMS Computer Score Card (or on the Student Answer Sheet) using a number 2 pencil.

4. This is a test, so the teachers are <u>not</u> to assist students in the completion of any response. If a question arises, the teacher should state, "Do the best you can."

5. The teacher should read aloud the "To The Student" page that appears in this student test booklet.

6. The test booklets and the CRMS Computer Score Cards should be collected and returned to the test administrator. Follow the directions on the front cover of this test booklet.

7. We are trying to *simulate testing conditions*. Therefore, do not discuss or review any part of this test with your students.

To the Student:

You are about to read a series of passages. Each passage is missing several words. Each missing word is shown by a blank space and a line with a number on it. Next to the passage, you will find the same number with five word choices listed beside it. Each of the words has a letter before it: *a, b, c, d, or e.* You must choose one of the words that will make sense in the blank space by selecting the proper letter.

Before starting the test, write your name, class and other test information as directed by your teacher. Each test contains ten passages. Wait for your teacher's directions before you begin.

When answering questions, make sure that the number on the blank line in the passage is the same as the number on the answer sheet. Once you have made your choice, darken in the circle that has the same letter as the word you have chosen. There is only one correct answer for each blank space, although all five choices will make sense in the sentence with the blank. Do not darken more than one circle for any answer. If you wish to change your answer, completely erase your first choice before you darken in your new answer.

Within all of the passages, there are clues that will help you choose the correct word for the blank space. Read carefully and remember to read past the blank space because some clues will often come after the missing word. You will be given as much time as you need, so there is no reason for you to rush through the test.

As you read through the test, the passages will become more difficult. You may not be able to complete all of the answers, but you are expected to do your best.

PASSAGE A

One of the differences between monkeys and apes is that monkeys have tails. A monkey's tail is a special part of its body. It can grab things. It's like having another ___1___.

The monkey also uses its tail to hang. This frees its hands and feet to do other things. It can ___2___ a tree. It hangs from a limb with its tail or grabs fruit with both of its hands and feet. This enables the monkey to ___3___ things it would not be able to without a tail.

This kind of tail is called a *prehensile tail.* The prehensile tail can grab on to things. The monkey can ___4___ from tree to tree using its hands, its feet, or its tail. This is how the monkey can move without touching the ground. The tail is a very ___5___ part of its body. A monkey's tail helps the animal to balance itself while running, jumping, and climbing on vines and in trees.

The monkey and the ape have feet that look like hands. Both hands and feet are flexible. They both have thumbs. Thumbs allow them to pick up things. Humans do not use their feet to ___6___. The big toe on a human foot cannot be bent like a thumb. That makes it hard to pick up things.

Monkeys and apes use the thumbs on their feet to grab on to trees and branches. They can ___7___ things with them, too. Wouldn't it be nice to be able to use hands and feet for the same job? If you got tired of writing with your hands, you could use your feet instead.

1. a. nose b. body c. arm d. shoe e. ear

2. a. saw b. lift c. carve d. plant e. climb

3. a. reach b. smell c. taste d. make e. change

4. a. fall b. swing c. run d. skip e. hop

5. a. colorful b. useful c. heavy d. large e. dangerous

6. a. eat b. write c. grasp d. drink e. fly

7. a. break b. touch c. bury d. build e. hold

PASSAGE B

Good nutrition is important for health and survival. It comes from eating many ___1___ foods. What you eat helps your body to grow. You must eat foods from all of the food groups. This will give you the nutrients your body needs.

1. a. cooked b. fried c. similar d. salty e. different

There are four basic food groups. There is a milk group, a meat group, a bread and cereal group, and a fruit and vegetable group. Each day's meals should include foods from every group.

Milk is an important part of nutrition. Babies, children, and adults should drink milk. It is good for all ___2___. Do you have milk with your lunch? Milk is sold in school lunchrooms. It is found in most homes.

2. a. people b. cats c. horses d. cows e. mice

Milk is a dairy product. If you do not like milk, you may like cheese, yogurt, butter, sour cream, or cottage cheese. All of these are also dairy products. They help your body grow. They are good for you. Many people like the ___3___. Dairy products make up only one of the four food categories. Each one of the four ___4___ is good for you in many different ways.

3. a. diet b. snacks c. calories d. look e. variety

Sandwiches are often eaten for lunch. Bread is made from grain. Some examples of grains are wheat, corn, rye, oats, and barley. Rye bread is made from rye. Whole wheat bread is made from wheat. White bread is also made from wheat. These grains are not only tasty, but they are also good for you. They are an ___5___ part of a meal.

4. a. areas b. drinks c. exercises d. subjects e. lessons

5. a. historical b. incorrect c. important d. unusual e. unwelcome

Peanut butter, chicken, hamburger, tuna fish, and eggs are necessary as well. Your body uses protein to grow and all of these foods provide it. This helps you become ___6___.

6. a. happier b. better c. stronger d. richer e. smarter

Doctors have discovered that eating nutritious food is good for you. It helps you stay ___7___. If you only eat "junk food," you might get sick.

7. a. here b. young c. still d. healthy e. awake

PASSAGE C

People breathe air in order to live. The air, which is composed of different kinds of elements and chemicals, goes into people's lungs. It is all around the earth. Without it, we would all ___1___. Without air, there would be no live plants or animals on earth. A person can only stay alive for a few minutes without air. You can stay alive longer without food or water.

1. a. die b. tremble c. cry d. sneeze e. sleep

The air we breathe surrounds the earth and keeps it warm. When the sun heats the earth, the earth in turn heats the air. The air is like a ___2___. It traps warm air like a cover you put on to keep warm. Air has no color, smell, or taste, but you can feel it when it moves. You can feel air against your face. You can see tree branches move as air pushes them. You can see sailboats and windmills moving from the force of air.

2. a. hat b. balloon c. blanket d. guard e. furnace

When air is heated, it expands and becomes lighter. Therefore, hot air rises. When you turn on the heat in a room, the air next to the radiator gets warm. The warm air rises to the ___3___. As more and more air is heated, the entire room gets warm.

3. a. sky b. wall c. ceiling d. window e. clouds

During a fire, the hot smoke rises. People should stay ___4___. This way they can crawl out of the room safely. Sometimes it is good to wet a towel and hold it over your ___5___. This will help to keep the smoky air out of your nose and mouth. You will be able to breathe more easily.

4 a. low b. home c. quiet d. alone e. out

5. a. arms b. body c. leg d. hair e. face

Firefighters wear ___6___ when they fight fires. They wear them over their eyes, nose, and mouth. This ___7___ them. They can stay in a smoke-filled room longer.

6. a. shirts b. jeans c. boots d. masks e. socks

For the most part, sounds are brought to us through the air. If there was no air in the world, we would have no sound.

7. a. fools b. protects c. scares d. cools e. hides

PASSAGE D

Where do you live? You live in a town or a city. But you also live on a huge ball in space. This is called the planet Earth. It is very ___1___. We can only see a small part of the earth at one time.

The earth is billions of years old. Many rocks contain layers that tell us about the history of the earth. Only astronauts flying way above it can see the entire earth. Astronauts fly around the earth many times. They ___2___ the earth.

The earth is almost round. If you look into the sky, you can see the sun, moon, and stars. The sun and moon are like the shape of the earth. You may think that the earth's surface looks ___3___. Remember, you are only on a very tiny part of it. You cannot see the earth's true shape. It is hard to see that the earth really ___4___. You do not see that the earth is round unless you look at it from a distance.

Every person and every thing is pulled to the earth. This pull is always happening. This is a very important action. This pull has a name. We call this pull gravity. This is what keeps people on the ___5___. This is also why rockets need such big engines to help them move away from the earth. This also is true of planes, helicopters, and hot-air balloons. When a football player kicks a ball into the air, he actually uses a force greater than that of gravity.

We have night and day on the earth. The sun gives us light. The rays travel in a ___6___ line. Light cannot move around something that is in its way. It cannot bend. Light comes from the sun to the earth. It shines only on one ___7___. Half of the earth has night while the other half has day. For example, while somebody in New York is eating breakfast, a person in Japan is getting ready for sleep.

1. a. noisy b. powerful c. smooth d. large e. small

2. a. miss b. circle c. photograph d. love e. dislike

3. a. high b. green c. flat d. large e. pretty

4. a. shines b. travels c. spins d. revolves e. curves

5. a. ground b. team c. move d. water e. telephone

6. a. broken b. straight c. jagged d. curved e. parallel

7. a. city b. hill c. person d. side e. country

PASSAGE E

The sun is a huge ball of gases at the innermost part of our solar system. Many heavenly bodies, including the Earth, revolve around it. All of the planets, meteors, comets, and other objects make up the solar system. The sun is the ___1___.

1. a. oldest b. center c. coolest d. smallest e. highest

Planets revolve around the sun in elliptical routes. Each one follows a set ___2___. This is called the planet's orbit. The planets are very large in size and so far away from each other that the distances are hard to imagine.

2. a. pattern b. road c. guide d. system e. path

The first four planets closest to the sun are relatively ___3___. The second four planets are much larger. In fact, these planets are called ___4___ planets. Yet, the last planet, Pluto, is the smallest of all the planets.

3. a. small b. barren c. cold d. close e. colorful

4. a. dwarf b. pretty c. cold d. giant e. sunny

The sun is one of billions of stars in the universe. But it is the most important star because without both the heat and light from the sun, there would be no life on earth.

All of the planets move in two ways. Each one revolves around the sun in its own orbit. On Earth, this cycle creates the four seasons. It takes the Earth one year to ___5___ it. Each planet also spins like a top or rotates on its axis. Each time the earth rotates, 24 hours pass. One rotation equals one ___6___.

5. a. reach b. create c. destroy d. change e. complete

6. a. week b. month c. year d. minute e. day

The sun gives off a form of radiation which travels to the Earth. When the sun's rays reach the Earth, the radiation provides light and heat. It is amazing that the rays travel so ___7___. The distance is enormous. It is about 93 million miles. The temperature of any place on Earth depends on the position of the sun in the sky.

7. a. often b. slowly c. accurately d. far e. haphazardly

PASSAGE F

A salmon is a type of fish that lives in the ocean. There are seven species of salmon, ranging from Atlantic Salmon to Sockeye Salmon. All salmon, except for the Atlantic Salmon, live in the Pacific Ocean. However, baby salmon cannot live in ocean water due to the salt. They must be born in fresh water. In the ocean, they would ___1___ very quickly.

1. a. swim b. breathe c. grow d. smell e. die

Fresh water is found in streams. When salmon are going to lay their eggs they must leave the ocean by swimming upstream. They return to a shallow part of the fresh water stream to spawn (reproduce). They do this so their babies can ___2___.

2. a. learn b. survive c. eat d. rest e. cry

As the fish travel upstream, both their shape and color change. For instance, all male salmon develop a hooked mouth. Pink salmon males grow a large hump on their back.

Many people fish for salmon because they are quite tasty. Sport fisherman take home millions of salmon every year. People know that salmon swim upstream when they are going to lay their eggs. Therefore, they know where to ___3___ the fish.

3. a. cure b. catch c. help d. prepare e. buy

Most salmon spawn during the summer or autumn months after swimming upstream as far as 2,000 miles from the ocean. A lot of salmon are unable to swim upstream because it is so difficult. Due to the fact that it is so difficult, only the ___4___ salmon make it to the quiet parts of the fresh water streams. There they lay their eggs, which can total between 2,000 and 10,000. The parent salmon do not survive the spawning process. Salmon that live in the Pacific Ocean spawn once and then die a short time afterward. They never live to see their ___5___.

4. a. lightest b. leanest c. brightest d. strongest e. heaviest

5. a. children b. partners c. friends d. projects e. homes

The eggs hatch after three or four months and the babies lie in the gravel for a few weeks. Once the baby salmon have hatched, they must swim downstream to the ocean. Once again, only the most powerful make it to the ___6___. Once they get to the ocean, they swim to different parts of the world. When they are full-grown and ready to lay their eggs, they return to the same stream in which they were born. They ___7___ the process again.

6. a. river b. harbor c. food d. sea e. mountain

7. a. change b. shorten c. try d. violate e. begin

PASSAGE G

Thousands of years ago, the Egyptians observed a star named Sirius that came up over the horizon with the sun every 365 days. At the same time, the Nile River would ___1___. Later, when the river waters would recede, rich new soil was deposited on the banks of the river. The day that Sirius and the sun rose together was thought to be the start of a new year. It was an easy way to remember when to plant crops. A ___2___ was created. It kept track of passing time.

1. a. flood b. freeze
   c. disappear d. stop
   e. turn

2. a. recipe b. machine
   c. solution d. method
   e. problem

The ancient Indian tribe known as the Mayas also created a way to keep track of the days. They created a ___3___. Instead of using one star, they used the sun, the moon, Venus, and Mars as their ___4___. They followed the changes and movements of these bodies to plan their seasons.

3. a. position b. calendar
   c. timer d. statue
   e. religion

4. a. subjects b. interests
   c. guides d. gods
   e. selections

The sky is used for other things, too. Sailors use it to ___5___. For centuries, people have been able to sail all over the world using only the sun and the stars. To find a ship's position, a sailor picks three stars, measures the angle that each makes with the horizon, and looks up each star's earthly position in an almanac. By using the angles and location of the stars, the sailor can find his position at any time.

5. a. navigate b. read
   c. command d. dream
   e. fight

We have been studying the stars since ancient times. Because of telescopes, astronomers can now study the skies better than people thousands of years ago. Through the use of this ___6___, scientists have collected a huge amount of data. For example, they know there are at least 135 billion stars in the sky. Astronomers classify stars in several ways, including brightness, color, and size.

6. a. microscope b. computer
   c. instrument d. machine
   e. chronometer

Certain groups of stars are called constellations. Constellations are said to look like objects, people or animals. A constellation that can be seen without a telescope is the Big Dipper. It is a group of seven stars. What is unusual is that they are in the ___7___ of a soup ladle.

7. a. shape b. bottom
   c. reflection d. handle
   e. contents

PASSAGE H

The United States is often divided into sections so that it can be more easily studied. The Midwest region of the U.S. includes such states as Iowa, Minnesota, Wisconsin, and Illinois. These states are close to the middle of America.

Natural resources are abundant in this ___1___ area. Rich farming soil as well as deposits of coal, iron, copper, and other minerals are found here. This region does not border any ___2___. However, the Great Lakes and the Mississippi River are found in the Midwest. Therefore, it has very busy waterways, even though it is not on the East or West Coast of the United States.

The land is used for growing corn or wheat, and for raising cattle or hogs. There is also a lot of ___3___ there. The Midwest has many factories. Much of the nation's steel is produced there as well as most of our automobiles and farm machines. The ___4___ your family owns is probably from the Midwest.

The climate is well-suited for growing crops. Depending on how far south you travel, the growing season is between four and seven months long. It lasts about half a ___5___. During the winter, it snows and is quite cold. The lakes and rivers ice over so that special ships have to be used to break up the ice. These ice-breakers make paths. As a result, ___6___ are able to get through. Then the freighters float through the waters again.

Many of the people who settled in the Midwest emigrated from the northeastern states. Those states had become ___7___ and the people wanted to leave. They moved west to start new lives in the middle of America where the population was less dense.

1. a. outer b. warm c. bottom d. central e. northern

2. a. cities b. ponds c. oceans d. towns e. mountains

3. a. industry b. air c. noise d. water e. heat

4. a. table b. car c. dog d. furniture e. clothing

5. a. day b. mile c. month d. week e. year

6. a. friends b. boats c. animals d. trucks e. ambulances

7. a. taxed b. flooded c. dangerous d. barren e. overcrowded

PASSAGE I

Photography is one of the most popular hobbies in the world. It allows a person to take pictures of family, friends, vacations, and important events. Photographs preserve a person's most treasured memories.

Photography allows people to make a visual record with their camera of anything they see. The word "photography" means "writing or drawing with light." A camera picture is a picture drawn with rays of light.

Located inside the camera is a special type of paper called film. Film is paper treated with various chemicals that allow it to react quickly and easily to light. Film is ___1___. The negative film is located at one end of the camera, while a hole is located at the other end. The hole allows light to___2___ the box.

In front of the hole is a shutter which opens quickly and closes when released so that just enough light comes into the camera and goes onto the film. The shutter opens for a ___3___. Some can open and close at various ___4___. This allows the photographer to adjust how quickly the shutter will move in order to allow the right amount of light into the camera. If the shutter is fast enough, it can stop action. A picture of a moving object will look like there is no movement at all. A camera with this kind of shutter can take a stop action picture of a horse running. The photograph will show the horse as if it is ___5___.

The lens is a glass cover in front of the shutter. Its opening is similar to the iris in the human eye because it controls the amount of light that reaches the film just as the iris controls the amount of light that reaches the eye. Turning the lens ___6___ the picture. This will change, depending on where the object is. By adjusting the lens you can clearly photograph things that are near or far. This process of adjustment allows one to determine whether the object will appear sharp or unclear in the picture.

On some cameras, choosing the correct shutter speed and adjusting for clarity is done by the camera itself. These recent advancements make picture-taking easier. Everything is done ___7___. Now the only things that photographers have to do is point the camera and shoot.

1. a. expensive b. colorful c. neat d. cheap e. sensitive

2. a. brighten b. enter c. leave d. hit e. destroy

3. a. moment b. season c. week d. minute e. breeze

4. a. objects b. speeds c. targets d. levels e. locations

5. a. alone b. eating c. sleeping d. happy e. still

6. a. measures b. tapes c. focuses d. frames e. draws

7. a. frequently b. incorrectly c. accidentally d. beautifully e. automatically

PASSAGE J

The climate of a region is based on the weather of that area over a long period of time. Climates may be very hot, very cold, or moderate. There is a wide band of hot weather which surrounds the earth. Generally, this weather is in the area of land near the equator, an imaginary line around the middle of the earth. Moving toward the North or South Poles, away from the ___1___, it becomes cooler. In areas that are near the equator, the direct rays from the sun are so strong, they produce high temperatures on the ground. It is for this reason that most regions near the equator have a warm to hot climate. However, distance from the sun isn't all that affects a region's climate.

1. a. mountains b. forest
   c. center d. lakes
   e. continent

Water heats and cools more slowly than land does. Oceans, for example, cause adjoining lands to have warmer winters and cooler summers. The air above the ocean is warmed or cooled by the water. The warm or cool wind from an ocean is then blown over the nearby land, causing it to have a warmer winter or a cooler summer. Inland areas are far from the ___2___. They do not benefit from the cooler or warmer air.

2. a. cities b. activities
   c. breezes d. tourists
   e. parades

A region's ___3___ can also effect its climate. The higher an area is above sea level, the cooler the air becomes. Some areas are covered with snow all year long even when the lower lands are having a hot summer. People who live in these places can ___4___ whenever they would like.

3. a. humidity b. seasons
   c. winds d. population
   e. altitude

4. a. eat b. travel
   c. read d. fly
   e. ski

Mountains block areas of land that get little ___5___. Air that blows against one side of a mountain is forced up the mountain. This cools the air and promotes rainfall. Warm air retains greater quantities of moisture. The mountain keeps the cooler air on one side. The cooler air is unable to ___6___ much water. Thus, the land on the other side will receive ___7___ rain. The mountain serves to separate sections that experience different amounts of rainfall. For example, mountain slopes that face moist ocean winds have heavy rainfalls. Therefore, a place located on a mountain usually has a cooler and wetter climate than a place at a lower elevation.

5. a. precipitation b. attention
   c. funding d. sunlight
   e. publicity

6. a. chill b. hold
   c. disperse d. freeze
   e. purify

7. a. freezing b. fierce
   c. acid d. less
   e. frequent

BERRENT PUBLICATIONS INC.
1025 Northern Blvd.
Roslyn, NY 11576
(516) 365-4040
1-800-74-LEARN

Student Booklet Level E Form 3

COMMUNITY SCHOOL DISTRICT
THIRTY-TWO

FELIX R. VAZQUEZ
COMMUNITY SUPERINTENDENT

32

CLOZE READING MANAGEMENT SYSTEM

To the Teacher:
You must read this before administering this CRMS test.
Important: Use only #2 black lead pencil on answer cards

1. **Fill in both sides of the CRMS Answer Cards completely.** Make sure that the student identification numbers are entered and the corresponding circles are completely filled in on the Answer Cards.

2. **Once your students have finished taking this test...** Make sure that the appropriate response circles are completely filled in. Collect the answer cards and rubber band them.

3. **Return the Answer Cards to us with a copy of the CRMS Teacher Record Form.** Make sure you indicate the level and grade on the CRMS Teacher Record Form. Rubber band the cards.

4. The Answer Cards from each class must be rubber banded separately.

5. Make sure there are no stray marks on answer card.

Call us immediately if a problem arises.
(516) 365-4040

BERRENT PUBLICATIONS INC.
1025 Northern Blvd.
Roslyn, NY 11576
1-800-74-LEARN

Arthur Hirshon & Edith Hirshon

Printed in the United States of America.

Second Printing 1994

1025 Northern Blvd.
Roslyn, NY 11576
(516) 365-4040
1-800-74-LEARN

CLOZE READING MANAGEMENT SYSTEM (CRMS)

To The Teacher:

1. Have students fill out non-test-related information on the back of the CRMS Computer Score Card (or you can duplicate the Student Answer Sheet on page 23 of the CRMS Manual).

2. Administer the test to the entire class under *untimed* testing conditions within one sitting.

3. The students are <u>not</u> to write in the test booklets. They are to write their answers on the CRMS Computer Score Card (or on the Student Answer Sheet) using a number 2 pencil.

4. This is a test, so the teachers are <u>not</u> to assist students in the completion of any response. If a question arises, the teacher should state, "Do the best you can."

5. The teacher should read aloud the "To The Student" page that appears in this student test booklet.

6. The test booklets and the CRMS Computer Score Cards should be collected and returned to the test administrator. Follow the directions on the front cover of this test booklet.

7. We are trying to *simulate testing conditions*. Therefore, do not discuss or review any part of this test with your students.

To the Student:

You are about to read a series of passages. Each passage is missing several words. Each missing word is shown by a blank space and a line with a number on it. Next to the passage, you will find the same number with five word choices listed beside it. Each of the words has a letter before it: *a, b, c, d, or e.* You must choose one of the words that will make sense in the blank space by selecting the proper letter.

Before starting the test, write your name, class and other test information as directed by your teacher. Each test contains ten passages. Wait for your teacher's directions before you begin.

When answering questions, make sure that the number on the blank line in the passage is the same as the number on the answer sheet. Once you have made your choice, darken in the circle that has the same letter as the word you have chosen. There is only one correct answer for each blank space, although all five choices will make sense in the sentence with the blank. Do not darken more than one circle for any answer. If you wish to change your answer, completely erase your first choice before you darken in your new answer.

Within all of the passages, there are clues that will help you choose the correct word for the blank space. Read carefully and remember to read past the blank space because some clues will often come after the missing word. You will be given as much time as you need, so there is no reason for you to rush through the test.

As you read through the test, the passages will become more difficult. You may not be able to complete all of the answers, but you are expected to do your best.

PASSAGE A

Fish tanks are fun to have because you can watch many different kinds of fish. One kind of fish you can have is tropical fish. These fish are able to live in aquariums we keep in our homes.

Tropical fish live in hot climates. The water therefore must be ___1___. The temperature of the water must be between 70 and 80 degrees Fahrenheit. Seventy-two degrees is the safest water temperature. Heaters should be placed at the edge of the tank. They help keep the water at a ___2___ temperature. A thermometer should be placed at the other end of the tank. It should be placed in a spot where it can be read easily. Any large change in the temperature of the water may be harmful to the fish. Large changes in the temperature can cause them to ___3___.

Before the aquarium is set up, the tank should be washed. The tank should be placed on a ___4___ surface. Because it will be heavy, you want to be sure that the surface can support it. There should be an electric outlet close by. Do not place the aquarium near heat, drafts, direct sunlight, or radiators.

It is important to wash the gravel. Then, it must be placed on the bottom of the tank about one inch deep. This is the first step in setting up a home aquarium. After, the tank can be filled halfway with water. Plants can be used to decorate the tank. They are kept in place by the gravel. Plants make the aquarium look more ___5___. They also provide food and shelter for the fish. The plants are ___6___.

A catfish is one kind of fish that finds and eats particles of food that are not eaten by other fish. They help keep the tank ___7___. It is important not to overcrowd the aquarium. Most aquarium fish need to be fed only twice a day.

1. a. fresh b. distilled c. cold d. salted e. warm

2. a. bad b. constant c. wrong d. different e. high

3. a. jump b. move c. eat d. sleep e. die

4. a. high b. colored c. strong d. low e. shiny

5. a. natural b. messy c. crowded d. complete e. attractive

6. a. unsafe b. dry c. flowers d. helpful e. wild

7. a. messy b. clean c. moving d. working e. full

PASSAGE B

A kite is a toy that flies in the air at the end of a line and has a light wooden frame. A kite can be made out of paper or cloth. But the paper or cloth must be light. If it is too ___1___, it will not fly. A kite is made to fly high. It can be seen in the ___2___. A string should be used by the person on the ground to hold onto the kite.

Kites come in a variety of sizes and shapes. Kites can be plain, fancy, bright, or dull. You can make your own kite or buy one. Toy stores have many kinds of kites. But, it is easy to ___3___ your own. You can make it any color or size you want.

You need to have the right ___4___ in order to make your kite. You will need two light sticks, a yardstick, a pencil, a file, string, glue, lightweight paper, paint, and old cotton cloth. Use the ___5___ paper you can find. The best paper to use is tissue paper.

The two light sticks and some string will make up the ___6___. This structure is the base for your kite. One stick should be a yard long and be crossed by another stick about ten inches from the top. The second stick should have slits filed into each end. Then, a string can be put into the slits and run around the outside for support. The kite can then be covered by paper. The paper should be larger than the string outline of the kite. The edges of the paper should be neatly folded over the string shape and glued into place.

The kite can then be painted. A tail can be added to the longest point of the body to aid in the kite's flying. Attach two-inch strips of cloth to a string that is tied to the end of the kite. Tie one end of a ball of string to the cross points of the wooden base. Now the kite is ___7___. Let it go up to the clouds!

Kites have also been used for other purposes, including the building of bridges. For instance, a kite line was used to begin the building of the suspension bridge at Niagara Falls.

1. a. strong b. heavy c. old d. big e. thin

2. a. road b. sky c. ocean d. trees e. water

3. a. tear b. see c. borrow d. find e. create

4. a. help b. place c. supplies d. idea e. books

5. a. thickest b. heaviest c. darkest d. oldest e. thinnest

6. a. fence b. frame c. weapon d. style e. design

7. a. unusual b. ready c. wet d. flimsy e. pretty

PASSAGE C

Railroads are one of the most important kinds of transportation we have today. Some trains carry people, while others transport lumber, coal, and other products. Trains travel all over the world. They are very ___1___. Almost every country has at least one railroad. Only airplanes can get from place to place more quickly.

1. a. harmful b. good
   c. small d. fast
   e. expensive

People do not drive trains the same way they drive cars or boats. This is because trains travel along tracks that guide them. Engineers are able to make trains move at different speeds. But it is the track that ___2___ the train.

2. a. steers b. fixes
   c. elevates d. brakes
   e. reverses

The first railroads were used in England. Soon they spread to other ___3___. These early trains were run by steam engines. Now trains are run by electricity and you can find them everywhere.

3. a. zones b. countries
   c. tracks d. stations
   e. streets

There are two different kinds of railroad trains. There are passenger trains and freight trains. Passenger trains carry people, while freight trains carry cargo from place to place. The two ___4___ of trains are very important. They serve different ___5___.

4. a. brands b. levels
   c. colors d. types
   e. photographs

Railroads operate both commuter and intercity trains for passengers. Commuter trains carry people between larger cities and suburbs, while intercity trains make longer runs. Therefore, intercity trains provide both sleeping and dining cars for the passengers. Some trains called elevated trains run above the street. Other trains operate ___6___ the street. They are called subways.

5. a. employees b. meals
   c. purposes d. buildings
   e. governments

6. a. below b. behind
   c. across d. near
   e. on

Every day many people ride the trains for different reasons. Students take trains to school. Other people take trains to ___7___. They must get to their businesses quickly. It is sometimes easier to take a train than a car in big cities.

7. a. work b. resorts
   c. emergencies d. relax
   e. friends

PASSAGE D

Bats are very unusual-looking mammals. Their bodies look like those of mice and yet they have very large wings. These wings actually have fingers and thumbs. They are like hands. Bats' ___1___ are usually used just to hang upside down. They are rarely used for walking.

1. a. teeth b. nails c. tails d. hooks e. hands

Most types of bats hang upside down when resting. They rest during the day and care for their young in secret roosts. They are ___2___ there. No one will notice them or be able to find them. Many roost in caves, mines, wells, or underground shelters. Bats can be found in large groups, known as colonies. At times, there can be thousands, even millions of bats in one colony. Other times, bats can be found living alone or in smaller groups.

2. a. remembered b. wanted c. comfortable d. hidden e. found

Right before nightfall, bats start to move around. They take ___3___ flights. They do remain in one place for a very long period of time. The bat's ability to fly and find its way in the ___4___ makes it different from other mammals. No other animal is as good at night flying as the bat. In fact, they are the only mammals that can fly.

3. a. scenic b. short c. dangerous d. scary e. bumpy

4. a. rain b. dark c. fields d. jungles e. mountains

On their brief flights they usually head for feeding grounds. Some feed in ___5___, while others like heavily wooded areas or jungles. Bats are able to roam great distances at night for their meals. If necessary, they can travel very ___6___. Most bats feed on insects that fly at night. This is the most common ___7___ that bats eat. On occasion, bats have been known to eat plants, as well as fish, birds, or rodents. Some even eat other bats!

5. a. ditches b. fields c. ponds d. rivers e. trees

6. a. far b. well c. quietly d. noisily e. steadily

7. a. vegetable b. time c. flower d. food e. way

PASSAGE E

Hotels are places to sleep when you are away from home. There are many different kinds of hotels that range from the elegant to the basic. Some hotels are quite ___1___. It is usually expensive to stay in one of these elaborate hotels. The rooms in these hotels may have cable television, VCRs, and even a telephone in the bathroom. They have beautifully carpeted floors with large and decorative beds. These are ___2___ places to stay.

1. a. empty b. ugly c. large d. fancy e. crowded

2. a. luxurious b. healthy c. dangerous d. cold e. lonely

Sometimes people do not want to spend a lot of money just for a place to spend the night. They want a ___3___ room. There are smaller types of hotels that are usually less expensive. They are called motels. The word "motel" came from combining the words motor and hotel. Motels are generally ___4___ than hotels. They have fewer floors and fewer rooms and are usually found near exits off major highways. That is why they were thought of as motor hotels. When drivers get sleepy, they can usually stop at a motel more easily. They need to ___5___ before they continue. Travelers usually do not have to reserve these rooms in advance. Motel owners hang a "Vacancy" sign outside the office of the motel if they still have rooms available for the night.

3. a. quiet b. different c. cheaper d. corner e. living

4. a. smaller b. older c. prettier d. taller e. larger

5. a. wash b. sit c. read d. rest e. stand

Some hotels are called resort hotels. The guests tend to stay here for a full holiday, not just for the night. It is a good idea to make reservations at these hotels since they are usually crowded at certain holiday times of the year. Travelers spend their entire ___6___ there. These hotels have dining areas where guests can eat their meals and various other services. Resort hotels may also provide ___7___ for their guests. For example, they offer swimming, tennis, and golf. Many times the concierge will arrange for sightseeing tours, or days of skiing or boating.

6. a. fortune b. vacation c. day d. life e. dinner

7. a. books b. foods c. activities d. towels e. soaps

PASSAGE F

Do you want to learn more about yourself? Do you want to remember important people, places, and events? If your answer is yes, you may enjoy keeping a diary. A diary is a secret book where you can write down your own thoughts, words, wishes, and dreams. These thoughts are ___1___. No one else needs to read your diary.

Entries may be many pages long, or they may be only a few words that create a mood or a tone. The ___2___ doesn't matter. Some diary keepers enjoy including special things in their diaries such as theater tickets or pictures. These items remind them of people and events. These things help them to ___3___.

Stationery stores and gift shops sell beautifully bound diaries with days and dates entered in for the full year. Many people, however, ___4___ simple ruled notebooks. Even loyal diary writers do not always write every single day. A plain notebook allows the writer to date entries as they are made. Then he or she does not have to stick to the ___5___ pages.

Some beginning writers find making diary entries difficult. They claim that nothing much happens to them from day to day. It is ___6___ for them to write. They say making diary entries based on such sameness is boring. But with a little patience, a diary-keeper can learn to make daily observations and mental notes that later can be ___7___. This provides a written account of memories to treasure.

Keeping a diary can be enjoyable. It gives you the chance to find out more about yourself. The time to start a diary is now.

1. a. happy b. private c. important d. loving e. temporary

2. a. length b. time c. person d. answer e. paper

3. a. decide b. forget c. remember d. know e. speak

4. a. hate b. sell c. prefer d. lose e. abandon

5. a. blank b. lined c. white d. predated e. thin

6. a. wise b. fun c. exciting d. interesting e. hard

7. a. found b. forgotten c. eliminated d. told e. recorded

PASSAGE G

Millions of people read newspapers everyday. Newspapers tell us about what is going on in the world. They contain a great deal of ___1___. Newspapers also keep people aware of happenings that take place in their own neighborhoods.

1. a. information b. problems c. ink d. holes e. dates

The people in charge of a newspaper are called editors. The editors correct stories which are to be printed. They must fix all the ___2___. Reporters write stories about things they have investigated. They are always searching for interesting ___3___. When they find a story that is newsworthy, they look for the facts. They use this data to write their articles.

2. a. codes b. windows c. bicycles d. races e. errors

3. a. bargains b. books c. antiques d. recipes e. events

People buy newspapers for many reasons. Many people like to read about athletics. For this reason, newspapers have ___4___ sections. Reporters are sent to various games. The reporters write about what has happened both on and off the field.

4. a. advertising b. sports c. circulation d. editorial e. financial

Most newspapers have movie and theater critics. They are always going to see ___5___. It is their job to view a movie or a play and give the readers their opinion. Newspapers list the movies that are currently playing so that people can pick the one they want to see.

5. a. houses b. cars c. shows d. trials e. restaurants

Businesses pay to have their messages printed in newspapers. Advertisements appear throughout the newspaper in various sizes. These ads are a major source of income for newspapers. They raise ___6___. Many newspapers are daily publications. They are ___7___every day. The papers printed on Sunday are larger than the papers printed on other days. Most people do not go to work on Sunday, so they have more time to read larger newspapers. There are also papers which are printed once a week called weeklies.

6. a. money b. prices c. crops d. stocks e. salaries

7. a. wrapped b. copied c. ignored d. ruined e. distributed

PASSAGE H

The United States Senate has one hundred members. The people in each state vote for two senators. Senators must be ___1___. Each one is chosen for a six-year term. One-third of the Senate is chosen every two years.

1. a. seen b. elected c. driven d. honored e. examined

There are certain requirements that a person must fulfill in order to become a senator. Senators must be at least thirty years old, they must be citizens of the United States for at least nine years, and they must be residents of the states they represent. They must ___2___ there. Since senators reside in the states they represent, they can better understand the local problems and issues there.

2. a. sleep b. visit c. go d. vacation e. live

The Vice President of the United States serves as the President of the Senate. In this role, he or she ___3___ the group. Senators have a very important function. They help make the laws of the United States and argue all the issues that arise. Some senators speak in favor of a bill, while others may speak against it. They will speak about the issues that relate to the bill. When the ___4___ is over, the senators vote. If most of the senators vote in favor of a bill, it becomes a new law.

3. a. leads b. gathers c. needs d. hires e. teaches

4. a. day b. session c. debate d. term e. summer

Senators work in Washington, D.C., in a building called the Capitol. The building has a large domed roof. Each year millions of people visit the Capitol while they are on vacation. Some of these ___5___ go to Washington D.C., just to see this building.

5. a. reporters b. tourists c. authors d. parents e. teachers

Sometimes college students are able to work for a senator if they are interested in this type of work. These students are called "pages." Their job consists of running errands, delivering packages, and sometimes making phone calls. Pages ___6___ senators.

6. a. escort b. help c. challenge d. fight e. greet

Senators have very important decisions to make. They must ___7___ the issues. The amount of money people have to pay in taxes is one of the problems that senators must think about and act upon.

7. a. display b. consider c. ignore d. list e. advertise

PASSAGE I

People have just begun to realize the benefits of regular exercise. In fact, it has been recently reported that consistent exercise increases one's life span. Exercise is any type of physical activity that uses the muscles of the body. It is important to continue doing this throughout one's life. Previously, losing strength and flexibility with advancing age was taken for granted. Now it is known that people are able to stay ___1___. People who exercise develop firm muscles and have good posture.

1. a. asleep b. alive c. healthy d. pretty e. away

There are many approaches to beginning an exercise program. The most important factors are interest and enjoyment. You have to ___2___ to be involved. If you begin with a program that you don't enjoy, you will be less likely to "stick to" the regimen. If you choose something that you look forward to doing, you will be well on your way to establishing an exercise routine. It is important to ___3___ the program. Playing sports is one of the most popular ways of exercising.

2. a. refuse b. speak c. run d. want e. vote

3. a. continue b. reject c. examine d. view e. escape

Exercise can be divided into various categories. One major division is whether or not the exercise is aerobic. Aerobic exercise puts extra stress on the heart and lungs. This forces them to work harder and more efficiently. When a person is doing "aerobics," they need more oxygen so they must breathe harder. They need to ___4___ their oxygen levels. Jogging, skipping rope, and cross-country skiing are all examples of aerobic exercises.

4. a. decrease b. maintain c. measure d. increase e. observe

Other types of exercises are called anaerobic. They require strength, endurance, and flexibility, but the exerciser does not usually feel "winded" at the end of the session. The exerciser does not breathe ___5___. Examples of anaerobic exercises are stretching and yoga. To have a well-rounded exercise program you must include some aerobic and some anaerobic types of exercise. Both are ___6___.

5. a. longer b. faster c. better d. less e. freely

6. a. strange b. fun c. unwise d. easy e. necessary

What you wear for your exercise program will depend largely on what type of exercise you choose. It is always best, however, to dress in layers. In this way, you are able to remove pieces of clothing as you become warmer. You will not become ___7___. You can stay cool while you exercise if you dress correctly.

7. a. thirsty b. bored c. overheated d. hungry e. drowsy

PASSAGE J

Bicycling has become a very popular form of transportation. More people are ___1___ than ever before. The total number of bikes in the U.S. is approximately one hundred million. Seventy-five percent of the people in the Netherlands own bicycles. In Japan and China, using a bicycle is a way of life.

A bike will pay for itself with even moderate use. It can save a considerable amount of ___2___. A person may be able to get to his or her destination sooner with a bicycle than with other forms of transportation. It also saves money for people who own their cars. This is especially true now that gasoline is so ___3___.

From a ___4___ point of view, cycling makes a great deal of sense. It is a good form of exercise. Bicycling causes less strain on the joints and muscles than jogging. People who may have joint problems are ___5___ to bike.

Regular exercise helps a person feel better and live a longer life. Exercise keeps the blood in your body circulating, keeps your heart moving, and builds up your lungs. Of course, biking also gets the arm, leg, shoulder, back, and stomach muscles working. Its ___6___ are numerous.

Bicycling can be a useful aid for weight control. Regular cycling burns off about three hundred calories per hour. Bicycling uphill or racing burns about six hundred calories per hour. Bicycle racing is a popular sport in many countries.

It is important to take it easy after cycling. Get off your bicycle and walk for several minutes. This allows your body to slowly ___7___ and return to normal.

Bikes are good for getting to and from work. They are also terrific for light shopping, visiting friends, and most other neighborhood trips. Bicycling is both healthy and fun. In the United States, children use bicycles for various reasons, including getting to school and doing errands. Adults use bicycles for transportation to work and for recreation. In countries where automobiles are not very common, the bicycle is usually the main method of transportation. This is especially true in less populated countries or places where the cost of automobiles is too expensive.

1. a. eating b. riding c. walking d. moving e. asking

2. a. time b. energy c. resources d. stress e. calories

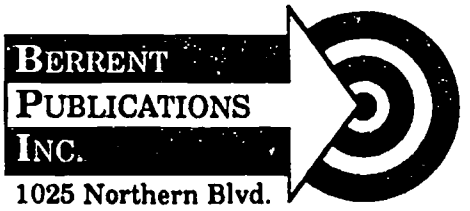
3. a. cheap b. common c. costly d. poisonous e. dangerous

4. a. statistical b. social c. medical d. business e. political

5. a. forced b. unable c. helped d. paid e. advised

6. a. benefits b. payments c. travels d. designs e. disadvantages

7. a. walk b. grow c. tire d. relax e. accelerate



1025 Northern Blvd.
Roslyn, NY 11576
(516) 365-4040
1-800-74-LEARN