

THE EFFECTS OF SUSTAINED SILENT READING ON ATTITUDES
AND COMPREHENSION ACHIEVEMENT OF DISABLED
READERS AT A SELECTED HIGH SCHOOL

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We hereby recommend that the _____ thesis _____ prepared under
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CHAPTER I

INTRODUCTION

Despite instructional and motivational gimmicks, it is not unusual to find disabled readers in the high school who have never read a book and who are uninterested in reading for its intrinsic value (Gentile & McMillan, 1977). The educational philosophies that have influenced the reading of many of these high school students typically placed emphasis on decoding and the development of separate sub-skills to get growth in comprehension (Vacca, 1980). In remedial reading classes at the Department of Defense Dependent Schools (DoDDS) High School in Kaiserslautern, Germany, students seem to be very comfortable with skill building exercises. However, their reading test scores continue to be below their expected achievement levels, and reading is not thought of as something one looks forward to doing.

Purpose

The purposes of this study were: (1) to determine what effect, if any, sustained silent reading (SSR), a holistic teaching approach, has on students' attitudes toward recreational reading; (2) to determine any changes in the comprehension achievement of high school remedial reading students

following the use of sustained silent reading; and (3) to determine if there is any relationship between attitudes toward reading and reading comprehension achievement of these disabled readers.

Students classified in the group of reluctant readers often experience reading as frustrating. They are convinced that there is little likelihood that they will ever read with facility and pleasure. The objective of the reading program for these students is to convince them that they can improve their reading and that reading can be enjoyable. The rationale for this study was to examine the effectiveness of a holistic approach as a viable remedial reading teaching technique for secondary students.

Operational Definition of Terms

For the purpose of this study the working definitions of certain terms are as follows:

Reading. A concrete definition of reading that is most meaningful for the reading specialists is one that lends itself to diagnosis and remediation. Therefore, reading is defined as a process of recognizing words and understanding words and ideas (Ekwall, 1976). The act of reading itself depends on the situation in which it is accomplished and the intention of the reader. For example, the reading of novels, poems, social studies texts, mathematical formulas, or

telephone directories calls for different ways of reading (Smith, 1978).

The disabled reader. The disabled reader is defined here as the student who scores two or more years below his/her expected achievement on a standardized reading test as well as one whose teachers have observed an inability to deal effectively with the reading materials used for instruction in the classroom (Ekwall, 1976).

Attitudes toward reading. Attitudes toward reading are those feelings which cause the learner to approach or avoid a reading situation (Alexander & Filler, 1976) as measured by the Rhody Secondary Reading Attitude Assessment. The areas of reading attitude included in this study are: (1) school related reading, (2) reading in the library, (3) reading in the home, (4) recreational reading, and (5) general reading.

Sustained Silent Reading (SSR). Sustained Silent Reading programs provide time for students to enjoy reading as a holistic and recreational language activity. Reading is treated as a hierarchial learning task (Sadoski, 1980, p. 721). SSR is a process or instructional technique whereby part of the class period is set aside on a regular schedule for everyone, including the teacher to read interesting literature. There are no other requirements placed on the student except to read.

Interest. Interest is "a characteristic disposition organized through experience which impels an individual to seek out particular objects, activities, understandings, skills, or goals for attention of acquisition" (Fraser, 1978, p. 67). Interest is indeed involved in one's attitude.

Reading Comprehension Achievement. Reading Comprehension Achievement is defined as a measure of the difference in periodic samplings of a person's reading ability as shown by test scores (Harris & Hodges, 1981) measured by The Stanford Diagnostic Reading Test, Level II, Form W.

CHAPTER II

REVIEW OF THE LITERATURE

In order to enjoy reading, a student must be able to read fluently, and fluency is gained through practice. If a student makes numerous errors or if he is forced to stop frequently to figure out an unknown word, he will lose interest and will cease practicing (Smith, 1978). Undoubtedly, instruction in the techniques of reading is essential. Without instruction many students would not learn to read at all. However, is it instruction more than practice that produces fluency?

Research has been conducted on the effect that SSR has on achievement and on attitudes toward reading (Cline & Kretke, 1980; Minton, 1980; Otto, 1977; Petre, 1977; Sadoski, 1980; Vacca, 1980; Wilmont, 1975). When the effects of holistic and subskill instruction are analyzed, neither instructional approach appears to be better than the other in affecting students' reading comprehension. However, the consensus is that SSR is useful in developing more positive attitudes toward reading.

One study determined that improved attitudes are related to building comprehension skills (Wallbrown, Brown & Engin, 1978). SSR takes advantage of catching the student's

interest. Belloni and Jongsma (1978) conducted a study of secondary students whereby interest proved to be a significant influence on the comprehension scores of the students involved in the study.

So far, research supports the theory that remedial readers are more likely to feel negatively about reading and less likely to enjoy it while viewing themselves as having difficulty reading (Shannon, 1980; Wallbrown, Vance & Prichard, 1979). While not all studies agree that improved attitudes toward course content will effect a positive growth in achievement (Simonson, 1977), researchers have found that average readers do have a good attitude toward reading (Wallbrown, Vance & Prichard, 1979).

". . . The way students feel about reading is closely involved with their reading achievement . . ." (Tullock-Rhody & Alexander, 1980, p. 609). "Direct experience with an attitude object may produce an attitude that is better defined and more confidently held than an attitude formed through more indirect means" (Fazio & Zanna, 1978, p. 399). It was also noted that "the more certain an individual is of his attitude toward some object, the more likely it is that this attitude will affect his behavior toward the object" (Fazio & Zanna, 1978, p. 399).

This leads one to question whether a reader who has increased the amount of his/her reading (direct experience

with an attitude object), will come to feel more positively about reading and have less difficulty reading. Researchers recognize the need for more study to be done in the area of attitudes toward reading as they affect comprehension gains before one can generalize that remedial readers feel negatively about the intrinsic value of reading (Wallbrown, Vance & Prichard, 1979).

Specific studies have been made in the area of the military child in European DoDD Schools that should be mentioned here. In the area of intelligence, a study made in 1973 showed the military child in the DoDD Schools is superior to the average civilian child. The California Test of Mental Maturity (CTMM) measured the U.S. dependent was a mean IQ of 112. "The civilian CTMM median IQ score of 100 was taken to represent the general U.S. student" (Ritter, 1979, p. 18).

In the area of scholastic achievement, two studies were conducted--one by Likens in 1962 and the other by Scott in 1963. Both studies indicated the average military student in the DoDD Schools is achieving above that of the general U.S. average. Recent studies in reading achievement made on a sampling of Kaiserslautern American High School students in 1979 support these studies. Nevertheless, there is still a need for reading improvement classes.

After a review of the literature, one can conclude that having a good attitude toward reading does not necessarily cause a student to be a better reader. Sustained silent reading offers a direct experience with an attitude object, and it may produce an attitude that is more confidently held. Researchers in every case reiterated the idea that more research should be done with different student populations before one could generalize the effects of SSR on reading comprehension skills and attitudes toward reading. Thus, the significance of this study was to determine if one can generalize the effect of SSR on reading comprehension achievement and attitudes of high school disabled readers attending the DoDDS High School in Kaiserslautern, Germany.

CHAPTER III

METHOD AND PROCEDURE

Method

The method was basically the experimental method of research which tests two hypotheses concerning the probability of a significant relationship between SSR and attitudes, and between SSR and reading achievement. As a part of the data analyses, a correlational study was made to estimate how related the two variables were, attitudes and reading achievement. Direct manipulation was made by the researcher of the independent variable, SSR. The independent variable takes the form of presence versus absence in the hypotheses (Gay, 1981). Because the experimental method was used on students in the classroom, the study was approved by the Human Research Committee and a copy of the consent form to be signed by parents was submitted before the actual experiment began.

Subjects

The secondary remedial readers in these groups are dependents of civilian and military Americans stationed in Kaiserslautern, Germany, and surrounding military

installations. As a result of the parent's job description, mobility of the family and living in a foreign country overseas, home life may be stressful. There are also increasing numbers of students in the school system who speak English as a second language.

The military job description involves long duty hours, frequent transfers to different duty stations throughout the world, and paternal separation from the family due to military unaccompanied tours of days, weeks, months, and even a year at a time. "Extreme stress is placed upon all family members in their individual attempt to adapt and cope with the problems of not having a father on a daily basis" (Ritter, 1979).

As for the mobility of the job, students in this particular set of reading improvement classes have moved on an average of six times in their lifetimes. For some students, it is their first move, while for others it is their tenth move. Many periodic moves within a child's school career "has a distinctly negative and harmful effect upon a student's educational development and achievement if he has the slightest weakness" (Ritter, 1979, p. 20).

The population is multicultural, with bilingual students, as well as students from mixed marriages. The following is a sample of the heritages of students in the four classes: French, Turkish, German, Korean, Vietnamese,

Anglo-American, Black-American, Mexican-American, Vietnamese-Anglo-American, Korean-Anglo-American. For various reasons, some of these students are learning to speak and read English for the first time.

There were approximately 30 students involved in each of the two groups in the study. According to Gay (1981), 15 subjects per group is an acceptable minimum in order to control for extraneous variables. The students enroll in a semester-long remedial reading class and receive one-half unit of English credit. Students are admitted to the class based on various combinations of parent request, history of reading problems in school, recommendations of classroom teachers and reading specialists from feeder schools, and a standardized reading test score of two or more grade levels below expected achievement level. Feeder schools are the junior high schools which students have previously attended. Reading specialists from these schools often make recommendations for students who have been in their reading programs and who would probably benefit from continued help.

A comparison of the two groups showed that they had an average pretest comprehension score of 5.9 and 5.85 with an average pretest attitude score of 80 and 78 respectively. The groups were also comparable in sex and race. There were eight more freshmen and sophomores and four less juniors and seniors in the experimental group; therefore, on an average

the experimental group was younger. However, an overall look at the two groups shows that they fitted the requirement of having similar characteristics.

Instruments

The Stanford Diagnostic Reading Test, Level II, Form W, second edition was used to measure the comprehension achievement of all of the students. This test was chosen based on recommendations from the DoDDS Language Coordinator, as well as the Reading Coordinator for the Right to Read Program working with adults who are stationed in Germany for DoD. Ekwall (1976) gave the test a good concurrent review concerning the content validity in his book Diagnosis and Remediation of the Disabled Reader. He says that "the authors have done a good job devising subtests that, for the most part, test in a situation that would be analogous to actual reading" (Ekwall, 1976, p. 96). The test is a group diagnostic survey. The breakdown of reading comprehension into two categories called "literal" and "inferential" is a positive difference from other comparable reading tests (Ekwall, 1976).

Construct validity is proven by the fact that the subtests are intercorrelated with correlations below the reliability coefficient and yet nowhere near zero, 0.48, 0.56, and 0.51 for the four different reading levels. The median

subtest reliability coefficients for reading comprehension at the four different levels are 0.78, 0.91, 0.92, and 0.97 (Karlsen, Madden & Gardner, 1966).

Other reasons for choosing this particular test include: (1) teacher input was important to the authors, (2) items were tested individually with pupils in clinical and classroom settings, (3) it is said to be a more reliable measurement for slower pupils than for average or above average students, (4) the test was purposely designed to lower test frustration for poor readers (Karlsen, Madden & Gardner, 1966), (5) it was readily available to the researcher, and (6) the researcher was familiar with the test.

Attitudes were measured using The Rhody Secondary Reading Attitude Assessment (RSRAA). This particular scale was chosen because of its reliability, ready availability, the ease of grading, as well as the fact that it is designed specifically for secondary students. The reliability coefficients should be in the upper brackets of r values usually 0.70 to 0.98. The r obtained for the RSRAA was 0.84, which is well within the validity range. The scale appears to have construct validity due to the fact that it was reported to be consistent with teacher observation of students perceived as having negative attitudes. Finally, the scale items were generated from an open-ended questionnaire to students; thus, the items are based on information from

students about how they themselves feel about reading (Tullock-Rhody & Alexander, 1980).

Materials

Paperbacks which are high interest, low level readability, ranging from second grade to eighth grade level, were available in the room, as well as comic books, comic digests, magazines, and the daily newspaper. Home libraries, elementary, junior high, and high school libraries, base libraries, post book store, and book clubs were available as other sources for reading material to be used during SRR. Four different book clubs of varying degrees of interest and difficulty were ordered from on a monthly basis by all the classes.

Skill building instruction was dealt with using: Reading Laboratory 3a, by Don H. Parker, Director, Institute for Multilevel Learning International, published by Science Research Associates, Incorporated; Junior RFU, Reading for Understanding, by Thelma Gwinn Thurstone, published by Science Research Associates, Incorporated; the workbook, Be A Better Reader Basic Skills Edition, with levels A - I, by Nila Banton Smith and published by Prentice-Hall, Incorporated; and the current Scope Magazine, published by Scholastic Magazine.

Design

The nonequivalent control group design, a quasi-experimental design was used. This design does not involve random assignment of subjects or groups, but rather it involves a cluster sampling where the treatment is randomly assigned to groups with similar characteristics. Two existing groups were pretested for attitudes and reading comprehension achievement. This pretest was used primarily to qualify students for the class. One group was administered the experimental treatment, while the other group continued with the traditional instruction. Then both groups were posttested for attitudes toward reading and reading comprehension achievement.

Identifying and Labeling Variables

A number of variables have been found which seem to correlate with attitudes toward reading: achievement (Norris, 1973), self-concept (Felker, 1974), parents and the home environment (Hansen, 1976), the teacher and the classroom atmosphere (Schubert, 1978), instructional strategies (Belonni & Jongsma, 1978; Collins & Collins, 1975; Oscanyan, 1977), attitude assessments (Boning & Boning, 1974; Estes, 1971; Frasher, 1978; Kennedy & Halinski, 1975; Oiller & Perkins, 1979), and student interests (Alexander & Filler,

1976; Spache, 1974). However, for the purposes of this study, focus was on (1) the instructional strategy of SSR, (2) the measurement of attitudes, and (3) comprehension achievement.

The independent variable, cause or treatment believed to make the difference, was the instructional strategy SSR. It seems that some instructional strategies work especially well with certain students while seeming to be unsuccessful with others (Ekwall, 1976). A philosophy of sustained silent reading (SSR) is that "Reading is a language process--a holistic activity--and not merely the sum or various decoding and comprehension skills" (Vacca, 1980, p. 512).

The dependent variables, or the effects, were the changes of attitudes toward reading and changes in comprehension achievement. Attitudes were assessed by means of attitude scales that require subjects to report how they feel about themselves.

Self-reports involve such problems as inadequate measures "just as thermometers are more reliable than subjective determinations of temperatures" (Oiller & Perkins, 1979, p. 417). The validity of self-reports must take into account not only answers designed to please the teacher, but also coming to terms with such words as "love," "hate," and "anxiety" (Oiller & Perkins, 1979).

Structured teacher observation of relevant behaviors over a period of time is one of the most valuable (if not the most valuable) ways to assess attitudes (Alexander & Filler, 1976). However, among the problems involved with observation as a tool of measurement is the idea that attitudes do not necessarily predict behavior. However, it is significant to this study that "attitude-behavior consistency was found to be significantly related to the amount of direct experience upon which the subject's attitude was based" (Fazio & Zanna, 1978, p. 398). In other words, the more an attitude is based upon direct behavioral experience, the more likely it is that the attitude predicted a subsequent behavior. Ransbury (1973) found that parents and teachers perceived one set of behaviors as indicative of a person who likes reading while their children associated with a completely different set of behaviors. Therefore, it is important to state the behaviors that were significant...

Improved attitudes toward reading were demonstrated by the fact that the student read more books, magazines and newspaper articles on his own than he did before having SSR used as a teaching technique. Unsolicited comments about the merits of reading and enjoying a particular book were noted, as well as comments from parents who noticed that their child had coupled reading with other activities or interests (Ransbury, 1973). Significantly improved

attitudes toward reading were measured by The Rhody Secondary Reading Attitude Assessment (RSRAA) (Tullock-Rhody & Alexander, 1980) (see Appendix B).

Despite problems of self-report, several attitudes surveys have been written and published and seem to have a certain measure of validity with studies being conducted on different populations (Alexander & Filler, 1976; Tullock-Rhody & Alexander, 1980; Wallbrown, Brown & Engin, 1978; Wallbrown, Vance & Prichard, 1979). RSRAA was chosen because it met the criteria of being on an interval scale and being a test for secondary students.

The last dependent variable was comprehension achievement. For the purposes of this study, comprehension achievement will be defined in terms of scores on the first test of the Stanford Diagnostic Reading Test, Level II, Form W (SDRT II), the second edition (Karlsen, Madden & Gardner, 1966).

Threats to Internal Validity

The factors which threaten internal validity were noted and every effort was made to control for them.

1. History, which refers to the events which are not part of the experimental treatment and the passage of time which could affect performance on the dependent variable (Gay, 1981). In the present study, history includes

attitudes toward reading and reading comprehension achievement in this study.

2. Maturation refers to physical and mental changes which may occur within the subjects over a period of time (Gay, 1981).

3. Testing refers to the improvement of posttest scores which are a result of subjects having taken a pretest (Gay, 1981). Since an adequate period of time passed, the performance on the posttest was not affected by the pretest.

4. Instrumentation refers to the reliability or inconsistency in measuring when pretesting and posttesting with tests that are unequal in difficulty (Gay, 1981). For this study the same test was used since a sufficient amount of time passed between pretesting and posttesting to permit the use of the same test.

5. Differential selection of subjects was not a problem because all students were having difficulty reading, especially in the content areas. Therefore, the groups were relatively equivalent in reading achievement.

6. Mortality is not controlled for by the experimental design, and because of the definition of the subjects, mortality was a limitation. Students were highly mobile, moving on short notice, and absenteeism was a problem.

students in DoDD Schools, Northern Germany Region. (5)
Contamination was also a variable that could not be controlled for. The researcher was familiar with the subjects and did administer the experimental study.

Hypotheses

The null hypothesis form was chosen for this study. Based on the problem statement, the following hypotheses were formulated and tested:

- H₁ There will be no significant difference between the mean attitudes toward reading, as measured by The Rhody Secondary Reading Attitude Assessment (RSRAA), after one semester's time for secondary disabled readers who receive a program including a daily period of SSR with skill building and of secondary disabled readers who receive a program of all skill building.
- H₂ There will be no significant difference between the mean comprehension achievement, as measured by the Stanford Diagnostic Reading Test, Level II, Form W, (SDRT II), after one semester's time for secondary disabled readers who receive a program including a daily period of SSR with skill building instruction and of secondary disabled readers who receive a program of all skill building instruction.

- H₃ There will be no significant correlation between attitudes toward reading, as measured by the RSRAA, and reading comprehension achievement, as measured by the SDRT II, after one semester's time exhibited by the experimental groups of secondary disabled readers who will receive a program including SSR along with skill building instruction and the experimental group.

Procedure

In late January of 1982, students enrolled for the spring term in reading improvement classes at Kaiserslautern American High School (KAHS) in Kaiserslautern, West Germany. During the month of January students were tested with the SDRT II, Form W, second edition. Once classes began, the RSRAA was given to both experimental and control groups.

The curriculum for the experimental groups provided the SSR approach four days a week for 25 minutes during each class period and a 20 minutes period of skill building instruction completed the class period. The guidelines for SSR were closely followed (see Appendix A).

The ground work was laid with advertisement of the program by means of a bulletin board. The teacher talked to the students about the program, and the rules were worked out and posted in the classroom. Books were collected by the students. Parents in the community donated old

magazines and books of interest to adolescents. The classroom also had available the daily newspaper, the monthly student newspaper, and issues of recent student magazines published semi-annually in the school.

A "Do Not Disturb" sign was made and a student in each class volunteered to put it up and take it down before and after the SSR period. Everyone read including the teacher. No reports were required. The teacher kept only a record of what the students were reading to insure that the students were not using this time to do homework or read books that were later turned in as book reports which were considered the homework assignment for this particular class. No questions were asked about what was read except in an encouraging way to get the students to open up and share a good reading experience. Often books were shared among the students and between teacher and students before the reading period began, during the five minutes used to prepare to read.

The teacher usually read adolescent literature that could be shared with students. Upon occasion, the teacher read certain selections from the books being read during the SSR period.

Lessons were given on how to select books that are appropriate for the student's interest and ability. The "Fist Readability test" was taught to help the student

choose a book that was easy to read. The Fist Readability test simply involves counting the problem words on any given page. If the reader puts a finger down for every problem word on a page and counts five problem words, a fist is formed, thus determining that the book is too difficult to be read for pleasure.

To determine whether or not a book is interesting, the technique of "dipping" into a book to read a page or two at the beginning, middle, and end was taught, as well as the technique of reading book jackets, backs of the paperback books, and the table of contents in books of non-fiction.

The experimental class was given individually assigned levels in the Reading for Understanding Kit (RFU) (Thurstone, 1963) and Reading Lab 2a (Parker, 1978) to complete the class period. Scholastic's Scope Magazine (1982) was used for oral reading and to beat the boredom of a double period day when class periods are two hours long. It served the same purpose in the control group. This hour was also used in both experimental and control groups to build interest or to work on grammar. Film strips and video movies of current books of interest were shown. The instructor often used this time to introduce reading techniques for speed and comprehension. Therefore, one class period per week was used to vary the activities of the week and add interest to the reading program for everyone.

The control groups were assigned the traditional curriculum of skill based materials which include RFU (Thurstone, 1963), Reading Lab 3a (Parker, 1978), and Be a Better Reader Basic Skills Edition (Smith, 1977) according to the appropriate individually prescribed level.

Both groups were required to give six book reports as their homework assignment during each semester. The administrator made it a point to prevent students from doing other assigned studies during SSR periods in order to (1) maintain the idea that the SSR period is an instructional approach assigned during the instructional time frame, not time to do their homework; (2) to control for equal amounts of reading time at home for both groups; (3) to maintain the traditional homework assignment which controlled for the novelty effect; and (4) to control for the placebo effect (Gay, 1981) where it appeared that all groups were being treated the same, and none of the subjects felt special because they had class time allotted for completing their homework.

Students in all groups were required to meet the same amount of time each week. Posttests using the same instruments used for pretesting were given to all four classes the middle of May. At the end of the course, an informal survey of the SSR Program was also given (Sadowski, 1980).

The students were asked not to sign the papers in order to protect their identity and allow for the most honest answers. The five questions were multiple choice. A large number of the students in the experimental group responded positively. Most of them said they did a significant amount of reading. Most of them said they gained a significant amount of interest in reading and that they read a significant amount more than before. They said that they usually came prepared to read during the SSR periods. They were asked to make comments if they wished, and no one responded negatively. The few who did comment made positive statements such as, "I hope you have sustained silent reading periods again next year."

CHAPTER IV

DATA ANALYSIS

The type of measurement scales were the nominal scales which are based on predetermined ranking intervals. Nominal scales were chosen since the reading comprehension test and the attitude scale fall within this category (Gay, 1981).

The two types of descriptive statistics used in this particular study were measures of central tendency and measures of relationships. The measure of central tendency determined the average score of a group, the average attitude score and the mean reading comprehension achievement. The measure of relationship indicated to what degree the two sets of scores were related, attitudes and reading comprehension achievement (Gay, 1981).

Data were graphed to see the distribution of scores. This could have influenced the choice of another descriptive statistic (Gay, 1981).

The standard deviation of the mean was computed for comprehension scores and attitude scores on only the posttest. Tests of significance were applied to the resulting posttest data. Tests of significance were based on an estimation of the standard deviation. They also test the null hypothesis.

The test of significance was made at the preselected probability level of five, $p = .05$ (Gay, 1981). In this study, the test of significance was two-tailed and the null hypothesis stated that there is no difference between the groups ($A \neq B$). This also allowed for the possibility that a difference could occur in either direction $A > B$, $B > A$ (Gay, 1981).

A parametric test was the type of test of significance chosen for this study since it was more likely to reject a null hypothesis that is false (Gay, 1981). The t test of nonindependent samples was used to determine whether two means were significantly different at the probability level of five (Gay, 1981). The t test was run on attitude posttests and also on comprehension posttest scores.

A Pearson r was calculated to determine if there was a significant relationship between attitudes and reading comprehension achievement using the posttest scores.

Findings

The purpose of this study was: (1) to determine what effect, if any, sustained silent reading (SSR), a holistic teaching approach, had on attitudes toward recreational reading of high school disabled readers; (2) to determine any changes in the comprehension achievement of these disabled readers; and (3) to determine if there is any

relationship between attitudes toward reading and reading comprehension achievement of these disabled readers. The rationale of this study was to examine the effectiveness of a holistic approach as a viable remedial reading teaching technique for secondary students. The effect of this holistic approach on comprehension achievement was measured by the Stanford Diagnostic Reading Test II, Form W, a test used as part of the testing program of the school in which students were enrolled. The effect of this approach on attitudes toward reading was measured by the Rhody Secondary Reading Attitude Assessment (RSRAA).

The t test of significance, a test of nonindependent samples, and the Pearson r correlation coefficient was used to analyze the data obtained. The data did not reject the null hypotheses of the three aspects of the question. The findings of the research hypotheses are presented below.

The Effect of Sustained Silent Reading on Reading Attitudes and Comprehension Achievement

Hypotheses to be Tested. There is no statistically significant difference at the .05 level to indicate that sustained silent reading has a greater effect on attitudes toward reading or on the comprehension achievement of disabled readers. There was also no statistically significant relationship at the .05 level between attitudes toward

reading and reading comprehension achievement of these disabled readers as measured by the RSRAA.

Results of Statistical Analysis. A t test of significance indicated that no significant difference exists between posttest scores on attitude and comprehension of the experimental and control groups. Therefore, the null hypotheses in both cases were retained (see Table 1). The determined value of t must be equal to or greater than the critical value of t before one can reject the null hypothesis.

The posttest data from the RARAA was used to test the significance SSR had on attitudes toward reading again using the t test of significance. The results were similar to the previous test. The null hypothesis was retained (see Table 2), since the determined value of t was not greater than or equal to the critical value of t.

A Pearson r correlation coefficient was used to test the relationship between attitudes toward reading and reading comprehension achievement. It was determined that there is not a relationship between attitudes toward reading and comprehension achievement. The null hypothesis was retained since the obtained value for r was less than the critical value for r at the .05 level of significance (see Table 3).

Table 1

t Test of Significance and Level of Significance of SDRT, II, W

Scores of Comprehension Achievement After a Period of
Instruction Using Two Methods of Teaching

	Sum of the Scores (X)	N	Mean of the Scores (\bar{X})	Standard Deviation (S^2)	df	Critical Values of <u>t</u>	Determined Value of <u>t</u>
Experimental Group	219.2	31	7.07	3.94	30	2.042*	-.060
Control Group	206.4	29	7.1	3.24			

*Level of significance for a two-tailed test at .05

Table 2

t Test of Significance and Level of Significance of RSRAA Scores of
Attitude After a Period of Instruction Using Two Methods of Teaching

	Sum of the Scores (X)	N	Mean of the Scores (\bar{X})	Standard Deviation (S^2)	df	Critical Values of <u>t</u>	Determined Value of <u>t</u>
Experimental Group	2323	29	80.1	125.54	28	2.048*	.57
Control Group	2262	29	78.0				

*Level of significance for a two-tailed test at .05

Table 3

The Pearson r Correlation Coefficient and Level of Significance of RSRAA

Scores of Attitude and SDRT, II, W Scores of Comprehension Achievement

After a Period of Instruction Using Sustained Silent Reading

in an Experimental Group

Sum of the posttest on attitudes times the posttest on comprehension (XY)	N	Mean of the posttest on attitudes (\bar{X})	Mean of the posttest on comprehension (\bar{Y})	Standard deviation for the sample on attitudes
17716.3	31	80.1	7.07	11.2

Standard Deviation for the sample on comprehension	Critical value of r	Obtained value of r
1.98	.355*	.230

*at the .05 level of significance

CHAPTER V

SUMMARY, DISCUSSION, AND RECOMMENDATIONS

This chapter consists of three sections: a summary, discussion, and recommendations. A summary of the investigation and the results of this study are presented first. Next, the discussion drawn from the findings and comments regarding the researcher's experience in conducting this study. Recommendations are then offered for the further use of sustained silent reading in a class for disabled readers at Kaiserslautern American High School.

Summary

Summary of Investigation

The significance of this study was to determine if one could generalize the effect of sustained silent reading (SSR) on reading comprehension achievement and attitudes toward reading of secondary disabled readers and particularly of those disabled readers in an overseas military dependent school. The rationale for such a study was to examine the effectiveness of a holistic approach like SSR as a viable remedial reading technique for these secondary students. The purpose was to determine what effect, if any,

SSR has on attitudes toward reading; to determine any changes in the comprehension achievement of high school disabled readers following the use of sustained silent reading on a daily basis; and to determine if there is any relationship between attitudes toward reading and reading comprehension achievement.

The research done by Otto (1977), Minton (1980), Petre (1977), Cline and Kretke (1980), Sadoski (1980), Vacca (1980), and Wilmont (1975) seemed to indicate that when the effects of holistic and subskill instruction were analyzed, that neither instructional approach appeared to be better than the other in affecting students' reading comprehension. However, the consensus was that SSR could be useful in developing more positive attitudes toward reading. The question remains in the realm of long-term goals for students. Are more positive attitudes toward reading important?

Research of the literature indicated that "the more certain an individual is of his attitude toward some object, the more likely it is that this attitude will affect his behavior toward the object" (Fazio & Zanna, 1978, p. 399). So perhaps one could say that the better one's attitude is toward reading, the more one might read; but not necessarily that one could read better just because their attitude was positive.

After a review of the literature one could conclude that more research should be done with different student populations before one could generalize the effects of SSR on reading comprehension and attitudes toward reading.

The subjects of this study included 60 students who were in the ninth, tenth, eleventh, and twelfth grades and who scored between 1.2 and 7.9 on the Stanford Diagnostic Reading Test II, Form W. The sample was drawn from a population of high school students in an overseas military school. The population was multicultural and in a sense they were nomadic people having moved from six to ten times in their lifetime.

The students were placed by administrative policy in remedial reading classes used in this study. The experimental group was made up of two classes of 15 and 16 students, and the control group was made up of two classes with 15 and 14 students in each class. The experimental groups were chosen randomly. Both groups were taught by the same teacher. They were both taught in the same manner, except that the experimental group was given a 25 minutes SSR period at the beginning of each class session four days a week. The method of teaching has been previously described.

At the end of the three and one half months' teaching period of the study, the SDRT, II, W and the RSRAA were administered to both groups. These posttest scores were used to

determine if a significant difference existed between the two groups in comprehension achievement and in attitudes toward reading. The posttest scores of the experimental group were used to determine if there was a correlation between reading comprehension achievement and attitudes toward reading.

Summary of Findings

The findings showed that the null hypotheses should be retained in all three cases. There was no significant difference between the two groups in either their attitudes toward reading or in their reading comprehension achievement. In other words, neither instructional approach appears to be better than the other in affecting students' reading comprehension or attitudes toward reading as was supported in the literature. The t test was on the difference between two means. If the means came from two different populations, the chances of them being significantly different from one another (probability) is measured by the t distribution. In this case, there is at least 95% probability that the two means did come from different populations if t is greater than or equal to the critical value of t and 5% or less probability that they did not.

No conclusions can be drawn about the effects of SSR if t is less than the critical value of t , because, in all

likelihood, the means came from the same population. In other words, SSR did not create a new population of students significantly different from the population who did not get SSR.

It is also possible that the null hypotheses were retained because of confounding variables, for example, time of day when control and experimental groups meet attendance, and number of students involved in the experimental and control groups. Also there was no way of knowing if the students really read.

It was also determined that there is no significant relationship between attitudes toward reading and comprehension achievement when using the RSRAA to assess student attitudes.

Discussion

Instruments

After having used the RSRAA to assess attitudes toward reading an uneasy feeling came to the administrator. Several of the students were confused by the questions and unsure that their answers reflected the answer they wanted to give. It is the opinion of the investigator that perhaps a more widely used instrument should have been used. Perhaps one that was more easily interpreted by disabled readers.

Although the questions were read to the students, the lack of interest on the part of some for filling out such a form was evidenced in the fact that many rushed to finish without waiting for any explanation.

It is also the opinion of this investigator that perhaps the informal inventory of the SSR program gave a better insight into what SSR did for the students than the RSRAA showed. Unfortunately, this survey was not included in this particular study and does not show up statistically. Further research should be done concerning this aspect of attitude measurement, since the informal survey indicated that most students in the experimental group participated in the SSR periods; most students noted that they gained a significant amount of interest in reading, and that they read a significant amount more than before.

Population

Many questions arise when one begins to contemplate generalizing the results of this study. Even if one were to keep the generalization confined to the disabled readers in overseas military secondary dependent schools, one should question the size of the sample. Was it large enough? Were there any accidents of sampling? What about the idea that what is good for one student isn't always good for another? Naturally, the population was definitely specific and not

one that allows for generalization to other disabled reader populations.

Correlation of Attitude and Ability

If it is true that there is no correlation between attitude and ability for disabled readers, and if it is true that neither the holistic approach nor the subskill approach is better than the other in affecting students' reading comprehension, then what does affect the ability to comprehend better? Is it IQ? Is the reader disabled because of his attitude? Perhaps there is a correlation between the amount of reading and one's comprehension level. Is there a correlation between good writing and good reading? Would forcing students to write make them better readers? What do energy levels have to do with ability?

Recommendations

Based on the findings of this study, the observations of the teacher, and the research of the literature neither the holistic nor subskill instructional approach appears to be better than the other in affecting students' reading comprehension. Although the RSRAA did not show an improvement in the students' attitudes toward reading, an informal survey of the SSR program indicated that a majority of the students did benefit from this program. It is recommended

that the SSR program remain a part of the activities for the remedial reading classes at Kaiserslautern American High School. However, it is recommended that the program should not follow such strict time constraints. Perhaps SSR could be part of the program on a nine-week basis for three days a week and then used as an incentive on days following a busy week. The SSR periods were very difficult to inspire on warm, sunny days following a long, dark winter. Perhaps with more flexibility for days such as these the SSR program could have shown more positive results.

It is also recommended that further study be made in constructing an attitude survey that would be more easily understood by disabled readers. Further research should also be conducted in the area of the relationship of attitude and comprehension achievement, as well as in the area of what does affect one's ability to comprehend on a higher level.

APPENDICES

APPENDIX A

GUIDELINES FOR SUSTAINED SILENT READING

Guidelines for Sustained Silent Reading

The following information was taken from Gambrell, L. B. Getting started with sustained silent reading and keeping it going. Reading Teacher, December 1978, 32, pp. 328-331.

1. Lay the groundwork.

Advertise SSR

Share books

Book display

Bulletin boards

2. Collect reading materials.

Magazines

Comic books

Pupil produced books

Paperbacks

Newspapers

Send a note home explaining to parents and requesting donations of old books and magazines.

Cut apart old basal readers and content books to make individual stories.

3. Determine an appropriate time period.

Daily doses of SSR are recommended

"Do Not Disturb" sign on the door

Begin with short periods of time and build up to 35 minutes

4. Discuss the SSR guidelines with the students several days before starting.

- a. Discuss the pleasurable aspects of reading.
- b. Discuss the importance of having time to do personal reading.
- c. Everyone, including the teacher, will read.
- d. No reports will be required.
- e. No records will be kept.
- f. No questions asked about what is read.
- g. Put guidelines in writing and post them.

5. Maintaining Interest.

- a. Remember that everyone reads, especially the teacher. To make SSR active and productive for the teacher, he/she can (1) read good books he/she always wanted to read; (2) read the professional journals; and (3) read adolescent literature that can be shared with students.
- b. Have the children get their reading material selected before the SSR begins each day.
- c. Use the period of time when pupils are getting reading material to work individually with various students as you try to sell them on books. Encourage students to share with others good books they've already read.

- d. Help the student learn how to select materials that are appropriate for his/her interest and ability.
 - (1) If a student should miss five or more words on a page, then the book is too difficult to read for pleasure.
 - (2) Teach the technique of book selection.
- e. Use a variety of ways to share books without actually giving a formal book report. A good time to share is just after the SSR period.
- f. Encourage students to read a complete book rather than coming unprepared for the SSR period.

APPENDIX B

RHODY SECONDARY READING ATTITUDE ASSESSMENT

Rhody Secondary Reading Attitude Assessment

Taken from R. Tullock-Rhody and J. E. Alexander. A scale for assessing attitudes toward reading in secondary schools. Journal of Reading, 1980, 23, pp. 609-614.

Directions: This is a test to tell how you feel about reading. The score will not affect your grade in any way. You read the statements silently as I read them aloud. Then put an X on the line under the letter or letters that represent how you feel about the statement.

SD - Strongly Disagree

D - Disagree

U - Undecided

A - Agree

SA - Strongly Agree

SD D U A SA

1. You feel you have better things to do than read.

2. You seldom buy a book.

3. You are willing to tell people that you do not like to read.

4. You have a lot of books in your room at home.

5. You like to read a book whenever you have free time.

SD D U A SA

6. You get really excited about books
you have read.

7. You love to read.

8. You like to read books by well-
known authors.

9. You never check out a book from
the library.

10. You like to stay at home and read.

11. You seldom read except when you
have to do a book report.

12. You think reading is a waste of
time.

13. You think reading is boring.

14. You think people are strange when
they read a lot.

15. You like to read to escape from
problems.

16. You make fun of people who read
a lot.

17. You like to share books with
your friends.

18. You would rather someone just tell
you the information so that you
won't have to read to get it.

SD D U A SA

19. You hate reading.

20. You generally check out a book

when you go to the library.

21. It takes a long time to read

a book.

22. You like to broaden your interests

through reading.

23. You read a lot.

24. You like to improve your vocabulary

so you can use more words.

25. You like to get books for gifts.

Scoring: A very positive response receives a score of 5, and a very negative response receives a score of 1. On items 4, 5, 6, 7, 8, 10, 15, 17, 20, 22, 23, 24, and 25, a response of "strongly agree" indicates a very positive attitude and should receive a score of 5. On the remaining items, a "strongly disagree" response indicates a very positive attitude and should receive the 5 score. Therefore, on the positive item, "strongly agree" receives a 5, "agree" receives a 4, "undecided" receives a 3, "disagree" receives a 2, and "strongly disagree" receives a 1. The pattern is reversed on the negative items. The possible range of scores is 5 x (125) to 1 x 25 (25).

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