

AN EXPERIMENTAL STUDY
USING AUDIOTAPED MATERIAL TO
INCREASE READING COMPREHENSION

MASTER'S PROJECT

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CHAPTER I

INTRODUCTION TO THE PROBLEM

Purpose of the Study

Reading is an integral part of daily living. It is an essential skill taught in school. Because all students have different needs and different learning styles, it is also essential that these reading skills are taught using a variety of methods. A review of some of the literature pointed to this need for classroom teachers to use a variety of teaching strategies to meet the needs of different types of learners. However, the researcher felt that this was not taking place in schools today. Students with poor reading skills often have poor academic achievement in the content areas. Research indicates that 15% of students are learning disabled because of difficulty in reading (Kavner, 1985).

One such reading difficulty develops when students have poor vision. Approximately 73% of children with reading difficulties have a vision disorder (Seiderman and Marcus, 1989). Students with vision difficulty often have trouble comprehending written material, sequencing ideas and remembering a series of directions (Huston, 1987; Watson, Wright and De l'Aune, 1992). The researcher felt it was necessary for classroom teachers to use a variety of

strategies to meet the needs of such students.

Research indicates that students with vision difficulty can improve reading skills such as comprehension, vocabulary, word recognition and oral reading by using a variety of techniques (Sudzina and Foreman, 1990; Conte and Humphreys, 1989). One such technique was the use of audiotaped material in conjunction with printed material. Students with vision difficulty benefit from the repetition of audiotaped material (Huston, 1987).

Every student learns differently and has different needs. The researcher believed that listening to books on tape would benefit students with vision difficulty by increasing their comprehension of printed material.

Statement of the Problem

The purpose of this study was to determine the effect of listening to books on tape on the comprehension scores of sixth graders with vision difficulty.

Hypothesis

There will be no significant difference in mean pre and post reading comprehension test scores of students with vision difficulty after listening to books on tape.

The researcher made the following assumptions in carrying out this study. First, the tests measured what they were designed to measure. The reading tests measured comprehension of the literature book in use at the time of the study. Second, the researcher assumed that the students performed to the best of their ability on the comprehension tests.

Limitations

The researcher found several limitations affecting this study. One limitation was that in using the T₁ X T₂ design, there was no control group. Another limitation was the small number of students involved in the study. Due to the nature of the study, only a limited number of students were involved. The final limitation, the influence of the pretest, affected the internal validity of the design.

Definition of Terms

Dyslexia is a language communication disability. It can be both visual and auditory. (Huston, 1987).

Physiological Disorder is a type of vision disorder in which there is a problem in how the eyes function as directed by the brain. (Seiderman and Marcus, 1989).

Visual Perception is how a person uses the information from the eyes. (Seiderman and Marcus, 1989).

Mnemonic Devices are used to improve or develop the memory. (Huston, 1987).

CHAPTER II

REVIEW OF THE RELATED LITERATURE

Types of Vision Difficulty

One type of vision difficulty is dyslexia. Dyslexia is a language communication disability. Children may have visual or auditory dyslexia. Children with visual dyslexia may experience difficulty in the sequencing of numbers, letters or events in a story. They may also experience reversal of letters, numbers or words on a printed page. Children with auditory dyslexia may experience difficulty comprehending words or phrases as they are presented orally. Words are not heard in logical order and so they do not make complete sense. Children with a combination of visual and auditory dyslexia may experience a number of these difficulties. Children with visual dyslexia may be somewhat better listeners than children with auditory dyslexia, but sequencing and retention of information are still problems for both (Huston, 1987).

Another type of vision difficulty is poor visual perception. Children with poor visual perception have difficulty using the information the brain receives from the eyes. Sequencing information and retention of information become difficult. They often read at slow rates.

Having information presented orally often increases comprehension. (Seiderman and Marcus, 1989).

Another type of vision difficulty is a physiological disorder in which there is a problem in how the eyes function as directed by the brain. Children with this type of disorder may experience difficulty focusing on words in their proper sequence or seeing words in the order they appear. They may reverse numbers, letters and/or words. Thus, comprehension of printed material becomes a problem. Using a guide (such as an index card) may be helpful in focusing on printed material, but again, listening to information may be more beneficial. (Seiderman and Marcus, 1989).

Reasons for Listening to Books on Tape

One reason for listening to books on tape is that children with vision difficulty need oral reinforcement to increase comprehension of printed material. They benefit from looking at print as they hear the words being spoken. Answering questions orally is often a truer assessment of progress. (Seiderman and Marcus, 1989).

Another reason for listening to books on tape is that children with vision difficulty often have trouble comprehending printed material. Sequencing events and recalling visual images, techniques used to increase

comprehension, are also difficult. Listening to books on tape enables children with vision difficulty to listen to material more than one time. (Beatty and Payne, 1984).

Another reason for listening to books on tape is that children with vision difficulty benefit from looking at print as they hear the words orally. Visually dyslexic children benefit from the combination of visual and oral readings. Saying words orally (as opposed to in written form) is a truer assessment of progress for visually dyslexic children. (Rokicki, 1990).

A final reason for listening to books on tape is that children with vision difficulty need repetition to increase memory skills. Visually dyslexic children often have trouble remembering a series of directions because of sequencing problems and difficulty with short term memory. Having books or a series of directions on tape enables children to listen to material over and over again. This repetition will help to increase memory and sequencing skills. (Beatty and Payne, 1984).

Effects of Listening to Books on Tape

One effect of listening to books on tape is that repetition of the tape increases sequencing skills. Having books on tape enables children with vision difficulty to stop

and discuss the tape and repeat as often as necessary. This helps the children put events in proper sequence. Repetition also enables children to create mnemonic devices to increase comprehension and sequencing skills. (Huston, 1987).

Another effect of listening to books on tape is that oral reinforcement increases comprehension skills. Listening to material orally enables children with vision difficulty to have material presented in a way they can understand. Difficult material can be rewritten and presented on tape in a more understandable way. If children understand the material presented, their comprehension will increase. (Bancroft and Bandinelli, 1982).

A final effect of listening to books on tape is that it improves vocabulary. Repetition of the tape familiarizes children with the words on the tape. The more the words are heard in meaningful context, the more the children can use and understand them. (Tait and Ward, 1982).

CHAPTER III

PROCEDURE

Subjects

The study was conducted with eight sixth graders who have vision difficulty. There were five boys and three girls participating in the study.

Setting

School. The study was conducted in a Catholic Diocese of Columbus elementary school. The study took place in one of the school's two sixth grade classrooms.

Community. The study was conducted in a large metropolitan area in central Ohio. This residential area is mostly a low-middle income, multi-ethnic background population.

Data Collection

Construction of the Instrument. The researcher constructed an achievement test focusing on comprehension of material heard on tape. The twenty items for this test were taken from the sixth grade literature book in use at the time

of the study, Number the Stars by Lois Lowry.

Administration of the Instrument. The eight students with vision difficulty read Number the Stars independently and were pretested on this material. The reading achievement pretest was administered before the eight students listened to the book on tape. After a three week period of reading the book in conjunction with listening to it on tape, the eight students with vision difficulty were given a parallel reading achievement posttest. The achievement tests both focused on comprehension of the book and were in written form. The achievement tests are located in the Appendix.

Design

The researcher used a classical $T_1 \times T_2$ design in which one variable was manipulated. The T_1 represented pretesting of reading achievement. The X represented the independent variable of listening to the book on tape. The T_2 represented posttesting of reading achievement.

Treatment

The researcher's independent variable for this study was listening to books on tape. The eight students with vision difficulty listened to the book on tape as they followed the corresponding printed material. Each of the eight students

had their own book and their own book on tape. If necessary, the eight students were able to stop the tape and listen to material again.

CHAPTER IV

RESULTS

Presentation of Results

The researcher computed the mean as the measure of central tendency and the standard deviation as the measure of variance for pre and posttest scores on the reading comprehension tests.

TABLE I
Results of Reading Comprehension Test

TEST	N	X	S
Pretest	8	70.6	6.8
Posttest	8	81.9	7.5

The t-test was measured at .05 level of significance. The t-test score had an observed value of 2.45

Discussion of the Results

The results of the pre and posttests support the ideas presented in the related literature. The improvement in test scores support Beatty and Payne's (1984) idea that repetition of material presented orally helps to increase comprehension of printed material. Students had the opportunity to stop and repeat any part of the tape they had difficulty understanding. This repetition, along with following the book in print, helped to increase comprehension.

The idea of following print as words are spoken orally is supported by Seiderman and Marcus (1989). They believe that comprehension increases when material is presented orally. The results of the pre and posttest scores support this belief. Seiderman and Marcus (1989) also support the idea of students using an index card as a guide when they are following printed text.

Listening to books on tape enables students with vision difficulty to have material presented in a way they can understand. Results from the tests show that material presented in a meaningful way increases comprehension.

Presenting material in a meaningful way and using a variety of teaching techniques help students' comprehension. One such technique is listening to material presented orally and following corresponding printed material. This technique

has been shown to be effective in increasing comprehension scores of students with vision difficulty. Thus, the null hypothesis, or hypothesis of no difference, was rejected. There appeared to be an increase in comprehension, evidenced by the improvement in test scores.

CHAPTER V
SUMMARY, CONCLUSIONS AND RECOMMENDATIONS

Summary

Reading is an integral part of daily living. It is an essential skill taught in school. Because all students have different needs and different learning styles, it is also essential that these skills are taught using a variety of methods. However, the researcher felt that this was not taking place in schools today. Students with poor reading skills often have poor academic achievement in the content areas.

The purpose of this study was to determine the effect of listening to books on tape on the comprehension scores of sixth graders with vision difficulty.

There will be no significant difference in mean pre and post reading comprehension test scores of students with vision difficulty after listening to books on tape. The eight students with vision difficulty each read Number the Stars independently and took a written reading achievement test after completing the book. During the next three weeks, the eight students read the same book as they listened to it on tape. They were able to listen to the tape or parts of the tape more than one time if necessary.

Following this, the eight students were given a parallel reading achievement test in writing.

Conclusions

The results of the pre and posttest scores indicated that listening to books on tape increases the reading comprehension of students with vision difficulty.

The results of the study also indicated that the null hypothesis was rejected. There was, in fact, a difference between pre and posttest scores.

As a result of conducting this study, the researcher concluded that students with vision difficulty benefit from listening to material presented orally in conjunction with reading the same printed material.

The researcher also concluded that repetition of words also increased the students' comprehension. Enabling the students to stop and listen to the tape again when they felt it was necessary allowed them to listen to unfamiliar words over again. Because these words were used in context, they soon became familiar words.

Finally, the researcher concluded that listening to books on tape provided the students with a different way to comprehend printed material. All students learn differently and have the right to learn using a variety of methods.

Recommendations

The researcher recommended that teachers use a variety of strategies in their lessons. Providing printed material on tape is one such strategy. This could be implemented for any student, but was shown to be especially effective with students having vision difficulty.

APPENDICES

APPENDIX A

Pretest Questions

1. Who do Annemarie and Ellen approach on the sidewalk? How does he respond?
2. What happened to Annemarie's mother on the path?
3. Why does Annemarie take Ellen's necklace?
4. What kind of shoes does Kirsti wear to school?
5. How does Mrs. Rosen get to Sweden?
6. Who rides through Copenhagen on a horse?
7. Who discovers Mr. Rosen's package?
8. When did Ellen celebrate New Year's?
9. How old is Annemarie?
10. Where do Annemarie and Ellen live? (what city)
11. What war was taking place?
12. Who did Jubilee belong to?
13. What do Annemarie and Ellen do at the edge of the water?
14. How were the bike wheels different?
15. What did the Johansens' drink instead of coffee? Why did they need to do this?
16. Where did the Nazis get the Rosens' names?
17. Who died of typhus?
18. Where did Annemarie keep her handkerchief?
19. Who is Lise?
20. Who is King Christian X?

APPENDIX B

Posttest Questions

1. Who owned the button shop?
2. What was Mr. Rosen's job?
3. Who killed Lise?
4. Who taught Annemarie to milk Blossom?
5. Why was the handkerchief so important?
6. What does Annemarie find in the trunk?
7. Who gives the packet for Henrik to Mr. Rosen?
8. What does Annemarie accuse Uncle Henrik of?
9. What was strange about Papa and Henrik's phone conversation?
10. What happened to the Tivoli Gardens?
11. What were the explosions heard on Kirsti's birthday?
12. Who is Ellen staying with?
13. What did Peter put in the coffin?
14. Who goes with Annemarie to the harbor?
15. What does Annemarie find in the grass?
16. What did Annemarie promise Ellen?
17. After the soldiers leave, what does Peter do?
18. Who arrives at Uncle Henrik's with Ellen's parents?
19. Where do Mama and the girls go while Henrik fishes?
20. Why does Annemarie think Great-aunt Birte's wake is so strange?

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