The Effects of Fluency Instruction on the Comprehension of First Grade Students

A Master's Project
Presented to
Dr. James Gay

In Partial Fulfillment of the Requirements for Master's Degree in Education

by
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Approved by: 

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CHAPTER I

INTRODUCTION TO THE PROBLEM

Statement of the Problem

The problem of this research project will deal with the relationship of fluency instruction and comprehension with first grade students. Does practice on fluency in oral reading improve the student's ability to comprehend after silent reading lessons better than the basal reader instructions which accompany the story?

Justification of the Problem

In primary literature based instruction, much emphasis is placed on repeated readings even to the point of
memorization of the story. This study will seek to find the benefits of this procedure and apply it to the use of basal texts.

Some research has been completed in the area of fluency instruction. The emphasis of this past research has been on both word recognition and comprehension. In relating comprehension to fluency instruction, the research has dealt with upper primary students. The results of this study may add to this research by relating it to first grade.

This project is designed to find the benefits of fluency instruction as opposed to the benefits of using activities provided by the basal. It is my hope to use the results in order to find more efficient methods of instruction for students.

Hypothesis

It is the hypothesis of this study that fluency instruction in oral reading will increase the student's ability to comprehend questions after silent reading more than basal activities.
Statement of Terms

The terms which will be used in this research are listed below.

**Fluency:** Fluency is defined as smooth and natural oral production (Rasinski, 1989) as measured through error analysis.

**Repeated Readings:** Repeated readings are defined as the practice of reading a text more than once in order to obtain fluency as measured through error analysis.

**Comprehension:** Comprehension is defined as obtaining meaning of a given text as measured by questions given by the teacher after the readings.

Limitations of the Project:

One of the limitations of this study is the size of the population. Only 10 students were selected out of a
population of approximately 20.

Another limitation is that all of the subjects were selected from a parochial school. The population of this school may be different from the general population of the public school system.

The length and timing of this project may be another limitation. The two month period in the first semester of first grade may provide different results than a whole year study. The first half of first grade is an adjustment period in which the students are learning to cope with attending school for a whole day and learning to follow new procedures.
CHAPTER II

REVIEW OF LITERATURE

Introduction

The goal of reading instruction, according to Duffy and Roehler (1986) is "to put students in control of the reading process—to help them get meaning from text." (p.56) In other words comprehension is the major goal. All other activities in reading are to help students attain this goal.

Comprehension Instruction in Basal Series

Many school systems in the United States have used
basal reading series for instructional purposes. Researchers have studied the method of comprehension instruction in these series. After reviewing third to sixth grade workbooks from several series, Jenkins and Pany (1978) concluded that comprehension skills were mainly taught through questioning techniques. "It is tempting to conclude that comprehension instruction consists primarily of repeated testing with feedback." (p. 12)

In another study, Durkin (1981) arrived at the same conclusion. The researcher felt that the basals had poor organization in teaching the comprehension skills. The series gave many examples with which to practice but no directions for the teacher to instruct the students on how to arrive at their answers.

In a similar analysis by Meyer, Greer, and Crummey (1987), four first grade programs were analyzed. Differences were found between comprehension questions in the stories among the various series. This study dealt with the questions given in the teacher's manual. It attempted to compare the series, but not to judge them. This study stated that some of the series emphasized decoding more than comprehension.

From the above research, it can be concluded that in
regard to comprehension, instruction the basal series are lacking in instructional procedures. While these studies have dealt with series that are now outdated, similarities occur with the current editions.

In the latest study of comprehension instruction in basal series (Durkin, 1990), the researcher found that current basals suffer from the same problems which are evident in the earlier editions. This study examined the instruction of main idea and story structure of five basal series. It was found that, although the texts were updated towards more of a whole language approach and covered more topics, many aspects were lacking in instructional procedures. Different types of text were used which made the choice of a main idea unclear. All of the texts introduced comprehension skills early but covered the skills too quickly. The focus was placed on short passages instead of several paragraphs or whole stories. In one of the series, key terms were defined in contradictory terms throughout the lessons. This study also focus on the lack of effectiveness of the workbook pages which had the same problems as the lessons. Therefore, alternate practice techniques may be more beneficial than the use of basal workbook pages.

There are several methods to remedy this situation.
There have been attempts made to interject the reading basal series with other techniques aimed at improving the comprehension instruction of the programs.

Schmitt and Bauman (1986) concluded that the basal series organization can be improved by placing the responsibility for comprehension on the students. This would require the teacher to help the students become aware of comprehension techniques such as predicting, summarizing and using prior knowledge.

Another of the techniques which may enhance comprehension instruction in basal series is fluency instruction.

Instruction in Fluency

There are several methods to help the students to obtain fluency in their reading. One of these methods is repetition which is most commonly referred to as repeated reading. Several people, have developed classroom models of this technique. Support during reading, choral reading, neurological impress method and use of tape recordings, direct instruction and feedback were some of the techniques
that have been suggested for use. Some have developed models to teach fluency which have involved using a combination of several of these methods. The oral recitation lesson (Hoffman 1985) was developed to use a combination of repeated reading and teacher modeling. The researcher found that by using this model, the focus became more on comprehension than word recognition.

Paired oral reading (Koskinen and Blum 1986) which benefitted from cooperative dyads and repeated readings had been utilized. This method had proven successful in fluency word recognition and comprehension. In another study (Frost 1990), third graders who were grouped in pairs read material a total of three times. The participants' literal comprehension increased by 44%, main idea selection increased by 80% and ability to draw conclusions increased by 60%.

To understand the need for fluency instruction, a review of the reading process is needed. Samuals (1985), contended that there were three reading stages in this process. According to Schreiber (1980), the last two stages are important for this research. These stages are the accuracy and automaticity stages. In Samuals' accuracy stage, the reader is able to identify the written words, but his or her concentration is absorbed in the decoding
process, leaving less attention to comprehension. Reading in this stage is not fluent. In the automaticity stage the reader is able to decode with much less difficulty and can thereby devote attention mainly to comprehension. Samuals stated the belief, therefore, that repeated reading aided in giving the reader the practice which was required to master high levels of skill in any area.

While Schreiber had agreed with Samuals stages of fluent reading, he had disagreed with the reasoning behind the benefit of repeated readings. The researcher's theory agreed more with Fries (1963) assessment. In this study Fries had stated that reading lacked some of the benefits which oral speech contained to aid in comprehension. The written word had no markings to aid in expressive reading.

"In the graphic representations of language there are left out such language signals as intonation and stress and pauses. These are important features of the signal of meanings."(p.130)

Schriebener, therefore, had felt that repeated readings helped the students to develop better syntactic phrasing. This would help to compensate for the absence of prosaic marks and would enable the student to read fluently thereby attain better comprehension.

Herman (1985) conducted a study in order to validate
Samual's results. The results of this study showed that less abled readers benefitted from the technique of practicing readings. Students practiced self selected stories and then tape recorded their readings while trying to obtain a speed of 85 words per minute. Word recognition increased due to the procedure.

Moyer (1982), saw the method of repeated readings as a natural extension of regular teaching techniques. This researcher believed that repetition in reading is as necessary as repetition of sight vocabulary through drill. In addition, just as the use of repeated readings limits the amount of material read, phonics instruction limits the introduction of skills in the first two years. The technique of language experience also limits the number of sentences introduced and the passage is practiced several times.

The results of a study by Bell and Markley (1990) involving second graders agrees with the previous study. The speed of readings increased for all subjects. However, accuracy increased in only one of the trials. The researchers feel that repetition is necessary in any reading program.

Several studies have been completed which tests the benefit of fluency instruction. Aulls (1977), had tested students in grades one, two and three. This researcher
found that an emphasis on fluency instruction demonstrated benefits in the first two years of its use with average readers. In less able readers these good results were obtained in the second to third year. After this time, however, the results showed diminishing returns for both groups. First graders in this study tended to remain on the instructional level instead of moving on to the independent level.

The success of another study (Matz, 1990), suggests that repetition of passages can be used to compare the unrehearsed reading with that of the rehearsed. The instructor can then make note of the reading strategies utilized by the student.

Although Aulls' research had dealt mainly with the ability to read fluently, several other researchers have related fluency instruction to comprehension. O'Shea and Sindelar (1984), have completed a study with third graders using repeated readings. The study had focused on the benefit of repeated readings using various attentional cues such as reading for speed or reading for meaning. The study resulted in fluency aiding comprehension best after the fourth reading of a selection regardless of the attentional cue which the student was given.

Fleisher, Jenkins and Pany (1978) have found that
fluency could be obtained through teaching words in isolation. However, this method did not increase comprehension of the material by the third grade students. It is therefore concluded that in order for fluency instruction to effect comprehension, the instruction must be geared to reading selections.

Rasinski's (1989) study using third grade students focused on repeated readings and repeated listening while reading. The results showed that both methods of reading helped to increase fluency.

A method of using repeated readings and repeated listening while reading was developed in a classroom of third graders. (Chomsky, 1976) She attempted to take the focus off of decoding in an effort to enable her struggling students to gain confidence and an interest in reading. After months of using these methods, the researcher was able to accomplish her goal. Chomsky found that her students not only felt better regarding their reading ability, but that the repeated reading and reading while listening procedures along with other techniques enabled her students to increase their sight vocabulary. This transfer of sight vocabulary decreased the amount of practice the students needed to obtain fluency in other selections.

Fluency instruction has shown much promise in relation
to comprehension in middle grades. In first grade classrooms, however, fluency research has rarely dealt with comprehension. One such study by Pronger (1985), discussed results from a research project which dealt with oral presentations of a story. The conclusions from this study showed that comprehension was enhanced when the story was presented at least twice. This study did not find that students were able to answer inferential question at a greater rate after the repeated readings. A comparison between the results from this study on oral presentations and the present study on silent reading comprehension would be beneficial.

The study which is closest to the present study seems to be that of Breznitz (1987). This study dealt with comprehension of first graders when reading rates are accelerated. Computers were used to help the students to reach their maximal reading potential. Although repeated readings were not a part of this study, similarities do exist. Fluency was encouraged through the use of the computer. The students' ability to read fluently lowered the reading errors and more importantly increased comprehension. The researcher believed that this was due to the increased amount of information placed into the short term memory. It is possible that through the use of
repeated readings, the resulting fluency may demonstrate similar results.

Summary

Reading instruction in the area of comprehension has covered many aspects, from current reading programs to additions to these programs.

Much of the research in the area of fluency instruction has shown positive results. However, many of the research reports in relation to fluency instruction for comprehension have dealt with upper primary levels. In the first grade level where students are struggling with word recognition the fluency studies have dealt mainly with this issue and not with comprehension. This study will attempt to complete this research by connecting the fluency instruction for comprehension purposes with the first grade reading experience.
CHAPTER III

DESIGN OF THE STUDY

Procedures

This study will be an experimental design of applied research. The two group randomized posttest only design will be used.

Participants

The participants are first grade students enrolled in a small school in Eastern Ohio during the 1991-92 school year. Their ages range from 6-7 years old. They are basically from middle income families.

The IOWA Test of Basic Skills will be used to match the students. The reliability of this test is .94 for the first
grade composite test.

The Scott, Foresman "An American Tradition", Levels 2B and 2C. will be used for instructional purposes. The copyright date is 1987.

The Goodman Reading Miscue Inventory (MacMillan, 1971) as compiled by R. Egnor-Brown will be utilized to measure fluency.

A tape recorder will be utilized to aid in the repeated reading process and in the testing situation.

The Goodman Reading Miscue Inventory (MacMillan, 1971) will also be used to measure the participant's comprehension of the given passages. The story material format, informational material format and character recall and development sections of this test will be used for this purpose. (See Appendix)

Procedure

1. Permission will be obtained from the principal, parents and students who will be involved in the study. The rights of the parents and students and the procedures of the project will be discussed before beginning. The subjects will be free to decline at any time. All names will remain
confidential.

2. The ten students will be randomly chosen and divided into two groups according to their results on the IOWA achievement tests. In this way I hope to control the factors such as intelligence, prior education, background and personality differences which would otherwise reduce the internal validity of the study. Any changes which may occur during the study such as the withdrawal of a participant or unequal maturation of the subjects may also be controlled in this manner or by eliminating subjects from the study.

3. The experimental group will complete a unit from the Scott, Foresman Reading series by completing the introduction of skills, introduction of vocabulary and reading of the story. They will then be involved in the method of repeated readings with the same story using a tape recorder.

4. The control group will also complete the unit from the Scott, Foresman Reading series by completing the introduction of skills, introduction of vocabulary and reading of the story. Instead of using the rereading
technique the students will be involved in the reteach, reinforce activities and workbook pages as outlined in the Scott, Foresman teacher's manual for that unit.

5. Both groups will then be tested orally for comprehension of the stories. This procedure will be recorded using an audio tape to eliminate errors in observation.

6. Steps 3-5 will be repeated over the period of two months to include eight units. The first two units will be used as a method of reducing the Hawthorne Effect and therefore will not be included in the results of the study. Only the last six units completed will be included in the results.

7. Any statistical regression noted in the results will be eliminated.

8. The above procedures will be conducted by another teacher in order that bias by the researcher will be eliminated.

Using the above procedures, it is believed that the treatment of the experimental group will cause significantly higher scores on a comprehension post test than the treatment of the control group.
CHAPTER IV

PRESENTATION AND RESULTS

Introduction

The two group randomized posttest only design was utilized in this study to compare two groups of first grade students. The data which resulted from this approach were treated using comprehension results from Egnor-Brown Reading Miscue Inventory (comprehension section only), means and standard deviations along with ITBS reading test scores. The t-test was used to determine significance of the difference between the two means. The results are shown below.

Results

The six scores for each of the comprehension tests for
the individual participants were averaged in order to present one statistic for each subject. All students are identified alphabetically from A through J. The averages and standard deviations for the experimental group are shown in table 1. The scores ranged from 78% to 56% with a mean score of 70%.

Table 1

<table>
<thead>
<tr>
<th>Student</th>
<th>Posttest Score</th>
<th>z-score</th>
</tr>
</thead>
<tbody>
<tr>
<td>A</td>
<td>78</td>
<td>.99</td>
</tr>
<tr>
<td>B</td>
<td>77</td>
<td>.86</td>
</tr>
<tr>
<td>C</td>
<td>71</td>
<td>.12</td>
</tr>
<tr>
<td>D</td>
<td>66</td>
<td>-.49</td>
</tr>
<tr>
<td>E</td>
<td>56</td>
<td>-.1.73</td>
</tr>
</tbody>
</table>

Table 2 presents the averages and standard deviations for the control group. The scores ranged from 87% to 59%
with a mean score of 76%. The subjects in the control group scored equal to or better than their counterparts in the experimental group. The difference in their scores were shown to not be statistically significant, \( t(3) = .115, p > .05 \). The result of the sample deviation is 10.

**TABLE 2**

CONTROL GROUP POSTTEST SCORES

<table>
<thead>
<tr>
<th>Student</th>
<th>Posttest Score</th>
<th>z-score</th>
</tr>
</thead>
<tbody>
<tr>
<td>F</td>
<td>87</td>
<td>1.15</td>
</tr>
<tr>
<td>G</td>
<td>83</td>
<td>.73</td>
</tr>
<tr>
<td>H</td>
<td>77</td>
<td>.10</td>
</tr>
<tr>
<td>I</td>
<td>76</td>
<td>.00</td>
</tr>
<tr>
<td>J</td>
<td>59</td>
<td>-1.77</td>
</tr>
</tbody>
</table>

Table 3 compares the results of both groups with their reading scores on the ITBS. The mean for the scores of all ten students combined is 73 with a standard deviation of 9.48. The scores of both groups are intermingled in the
results as shown. According to the ITBS reading scores, the students who scored highest on the Egnor-Brown miscue analysis and comprehension test are, for the most part, those students with average ITBS scores. The ITBS scores which are above 2.0 are mainly at the bottom half of the scores.

TABLE 3
TEST RESULTS OF ALL SUBJECTS WITH ITBS SCORES

<table>
<thead>
<tr>
<th>Subjects</th>
<th>Test Scores</th>
<th>z-score</th>
<th>ITBS Scores</th>
</tr>
</thead>
<tbody>
<tr>
<td>F</td>
<td>87</td>
<td>1.48</td>
<td>1.8</td>
</tr>
<tr>
<td>G</td>
<td>83</td>
<td>1.05</td>
<td>1.5</td>
</tr>
<tr>
<td>* A</td>
<td>78</td>
<td>.53</td>
<td>1.8</td>
</tr>
<tr>
<td>* B</td>
<td>77</td>
<td>.42</td>
<td>1.6</td>
</tr>
<tr>
<td>H</td>
<td>77</td>
<td>.42</td>
<td>2.1</td>
</tr>
<tr>
<td>I</td>
<td>76</td>
<td>.32</td>
<td>1.5</td>
</tr>
<tr>
<td>* C</td>
<td>71</td>
<td>-.21</td>
<td>2.5</td>
</tr>
<tr>
<td>* D</td>
<td>66</td>
<td>-.74</td>
<td>2.5</td>
</tr>
<tr>
<td>J</td>
<td>59</td>
<td>-1.48</td>
<td>1.6</td>
</tr>
<tr>
<td>* E</td>
<td>56</td>
<td>-1.79</td>
<td>2.4</td>
</tr>
</tbody>
</table>

Note: * subjects in experimental group
Summary

The results of this study show that there was no statistically significant findings to support the hypothesis. Both the experimental and control groups performed equally well.
CHAPTER 5

SUMMARY, CONCLUSIONS AND RECOMMENDATIONS

Summary

The intent of this study was to compare and analyze regular basal instructional techniques for comprehension with an added fluency instructional technique. One of the purposes for completing this study was to borrow a technique utilized in whole language to see if the results were similar when applied to the basal programs.

Conclusions

As was previously stated in the results, this study did not provide conclusive evidence for the success of the strategy of repeated readings. The students who were
involved in the experimental group performed only as well as the students in the control group.

Since the participants involved in the study were reading above grade level, it can be concluded that fluency instruction does not benefit those particular students. This may be due to the strategies which these students already possess. These students are already using strategies which fluent readers possess such as the use of context clues, phonetic cues and sentence structure to obtain meaning from a selection. Fluency instruction and repeated readings for these students would be a needless process which would take time away from more beneficial activities. They could use this time in more constructive ways that will help them to attain higher levels of thinking.

Recommendations

It is recommended that further research be completed in this area. This research could be conducted involving first grade students who are reading below their grade level. Results from this research could be beneficial to
find if fluency instruction could improve the comprehension of these students.
PROCEDURES FOR ADMINISTRATION AND SCORING
READING MISCUE INVENTORY

Compiled by
R. Egnor-Brown

ADMINISTRATION

A story or reading selection should be made for the student. Selections should be new to the student and difficult enough to generate 25 or more miscues (50 or more in the case of research studies) from the student. Reading selections should have the continuity of meaning that a unified story or text would provide. The student must read the entire selection so it should not be longer than he/she can handle at a single sitting. The examiner uses a worksheet upon which the selection has been retyped with lines of the text exactly as shown in the book. Each line on the worksheet should be numbered with the page and line of the text for miscue identification. A retelling outline should be prepared which contains the following items and should be assigned the following point values:

**Story Material Format**

<table>
<thead>
<tr>
<th>Character Analysis</th>
<th>Points</th>
</tr>
</thead>
<tbody>
<tr>
<td>Recall: a listing of the characters involved in the story (15)</td>
<td>30</td>
</tr>
<tr>
<td>Development: information concerning the characters' physical appearance, attitudes and feelings, behavior, and relationship to other characters (15)</td>
<td></td>
</tr>
</tbody>
</table>

| Events - the actual happenings as they occur | 30 |
| Plot - the plan upon which the sequence of events is organized/the overall questions or problem which is the central concern of the story | 20 |
| Theme - the generalization, perspective, viewpoint, or around which the story and its plot are built | 100 |

**Informational Material Format**

| Specifics - the actual happenings, items, instances, or bits of information in the material | 40 |
| Generalizations - general information which can be deduced from examination of the interrelationship of specific items or facts. Generalizations relate directly to the topic of the material. | 30 |
| Major Concepts - overarching or universal views or positions which are abstracted from generalizations. Concepts can be applied to diverse topics and across fields of study. | 100 |
Before the student begins reading orally, he/she should be told oral reading during the session will not be graded and that he/she will be asked to retell the story or text ideas after completing oral reading of the text. The student should also be told that no help will be given by the examiner and that he/she can guess or skip unknown words or use any strategies known to help himself/herself. The student should be encouraged to do his/her best in the reading session and in retelling the text material or story. The student should read directly from the book with the examiner following closely, marking miscues and any other pertinent data on the worksheet. Since it would be difficult to mark everything that happens during the session, the reading and retelling should be recorded so that marking can be completed and retelling scores computed after the session.

Following the unaided retelling, students should be asked open-ended questions to probe any areas omitted in the student's version. Questions should not contain any specific information which the student does not report. All mispronunciations should be retained in the questioning. The retelling outline should be used during the retelling and details of the material marked as they are given by the student either during his version or as a result of the examiner's questions. Examples of appropriate open-ended questions for story material the examiner might use are as follows:

**Character recall and development:** Who else was in the story? tell me about them. What are (character) like? (use only what reader has given in answers)

**Events:** Can you think of anything else that happened? Where did the story take place?

**Plot:** Why did (key event) happen? (only student information) What was the problem the story was trying to solve? How did the story make you feel? Why?

**Theme:** What do you think the story was telling you? Why do you think the author wanted to write this story? Do you know any other stories that are trying to tell you the same thing?

(Use of nonsense words: What does __________ mean?)

Open-ended questions in information materials will vary depending on specifics, generalizations, and major concepts given in the text.
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