Teaching with Cloze: Its Effect on the Reading Comprehension of Poor Readers

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TEACHING WITH CLOZE:
ITS EFFECT ON THE READING COMPREHENSION
OF POOR READERS

THEESIS

Submitted to the Graduate Committee of the
Department of Curriculum and Instruction
Faculty of Education
State University College at Brockport
in Partial Fulfillment of the
Requirements for the Degree of
Master of Science in Education

by
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Table of Contents

List of Tables ........................................... v

Abstract

Chapter I

Statement of the Problem. ............................... 1
  Purpose. .............................................. 4
  Questions to be Answered ........................... 4
  Need for the Study ................................ 5
  Definition of Terms ................................. 6
  Summary ............................................. 8

Chapter II

Review of the Literature ............................... 9
  Purpose. .............................................. 9
  The Cloze Procedure ............................... 9
    Construction and Scoring ......................... 10
    Cloze as a Measure of Readability ............... 11
    Cloze as a Measure of Comprehension .......... 12
    Cloze as an Instructional Technique ........... 13
  A Comparison of Good and Poor Readers .......... 20
  Summary ............................................ 27
Table of Contents (Continued)

<table>
<thead>
<tr>
<th>Chapter III</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>Design of the Study</td>
<td>29</td>
</tr>
<tr>
<td>Purpose</td>
<td>29</td>
</tr>
<tr>
<td>Hypotheses</td>
<td>29</td>
</tr>
<tr>
<td>Methodology</td>
<td>32</td>
</tr>
<tr>
<td>Subjects</td>
<td>32</td>
</tr>
<tr>
<td>Instruments</td>
<td>35</td>
</tr>
<tr>
<td>Procedure</td>
<td>37</td>
</tr>
<tr>
<td>Statistical Analysis</td>
<td>43</td>
</tr>
<tr>
<td>Summary</td>
<td>44</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Chapter IV</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>Analysis of the Data</td>
<td>45</td>
</tr>
<tr>
<td>Purpose</td>
<td>45</td>
</tr>
<tr>
<td>Finding and Interpretations</td>
<td>45</td>
</tr>
<tr>
<td>Reading Comprehension</td>
<td>46</td>
</tr>
<tr>
<td>Subskills of Comprehension</td>
<td>48</td>
</tr>
<tr>
<td>Comprehension of Cloze Material</td>
<td>54</td>
</tr>
<tr>
<td>Summary</td>
<td>56</td>
</tr>
</tbody>
</table>
Table of Contents (Continued)

Chapter V

<table>
<thead>
<tr>
<th>Section</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>Conclusions and Implications.</td>
<td>58</td>
</tr>
<tr>
<td>Purpose.</td>
<td>58</td>
</tr>
<tr>
<td>Conclusions.</td>
<td>58</td>
</tr>
<tr>
<td>Limitations.</td>
<td>60</td>
</tr>
<tr>
<td>Implications for Research.</td>
<td>61</td>
</tr>
<tr>
<td>Implications for Classroom Practice.</td>
<td>63</td>
</tr>
<tr>
<td>Summary.</td>
<td>65</td>
</tr>
<tr>
<td>Reference Note</td>
<td>66</td>
</tr>
<tr>
<td>References</td>
<td>67</td>
</tr>
</tbody>
</table>

Appendices

<table>
<thead>
<tr>
<th>Appendix</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>A. Cloze Test Passage Readabilities and Textbook Publishers</td>
<td>72</td>
</tr>
<tr>
<td>B. Sample Multiple-Choice Cloze Exercise</td>
<td>75</td>
</tr>
<tr>
<td>C. Books Used for Cloze Exercises</td>
<td>77</td>
</tr>
<tr>
<td>D. Sample Cloze Exercises</td>
<td>79</td>
</tr>
<tr>
<td>E. Cloze Tests</td>
<td>85</td>
</tr>
</tbody>
</table>
List of Tables

<table>
<thead>
<tr>
<th>Table</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Mean Reading Comprehension and IQ Scores: Grade 4</td>
<td>33</td>
</tr>
<tr>
<td>2. Mean Reading Comprehension and IQ Scores: Grade 5</td>
<td>34</td>
</tr>
<tr>
<td>3. Posttest Mean Reading Comprehension Scores: Grade 4</td>
<td>47</td>
</tr>
<tr>
<td>4. Posttest Mean Reading Comprehension Scores: Grade 5</td>
<td>47</td>
</tr>
<tr>
<td>5. Subskill Mean Raw Scores: Grade 4</td>
<td>50</td>
</tr>
<tr>
<td>6. Subskill Mean Raw Scores: Grade 5</td>
<td>52</td>
</tr>
<tr>
<td>7. Cloze Test Scores and Readability Levels: Grade 4</td>
<td>54</td>
</tr>
<tr>
<td>8. Cloze Test Scores and Readability Levels: Grade 5</td>
<td>55</td>
</tr>
</tbody>
</table>
Abstract

This study investigated the effectiveness of instructing poor readers using the cloze procedure. The primary purpose was to determine whether significant differences in reading comprehension grade equivalent scores occurred between the treatment and control groups on a standardized reading achievement test. Five sub-skills of comprehension measured by this test were identified and analyzed to determine which subskill areas were affected by the use of cloze. A secondary purpose was to determine whether poor readers increased in ability to comprehend cloze material at their instructional level.

Thirty-one fourth and fifth grade poor readers participated in the study. The treatment and control groups were found to be comparable in both IQ and reading comprehension prior to the start of treatment. The treatment groups were instructed with cloze exercises three times each week in sessions of approximately 20 minutes. Specific instructional strategies were used during the 10-week period of instruction.

The data were analyzed at the .05 level of significance using a series of t tests. No significant differences in mean grade equivalent scores were found
on the reading comprehension posttest between the treatment and control groups. None of the subskill areas could be positively identified as being affected by the use of the cloze procedure.

The fourth grade treatment group achieved significant pretest-posttest gain scores on cloze tests at their instructional level. The fifth grade treatment group made positive, although not significant, gains on cloze tests at their instructional level.

It was concluded that the use of cloze exercises encouraged the children in the treatment groups to give close attention to contextual cues in order to replace the deletion with a word which was syntactically and semantically acceptable. However, this improvement as measured by the cloze tests was not observable on the reading achievement test inferring that the abilities which were developed by the use of cloze were not transferred to the Stanford Achievement Test format.

Limitations of this study were pointed out. Suggestions for classroom applications and implications for further research were discussed.
Chapter I

Statement of the Problem

The cloze procedure has received considerable attention since it was introduced as an instrument to measure readability (Taylor, 1953). Researchers investigating the validity and reliability of this tool have concluded that cloze and conventional reading tests seem to measure the same processes (Bormuth, 1968; Taylor, 1956). Cloze scores were correlated with scores on conventional multiple-choice comprehension tests and criteria were established to determine independent, instructional, and frustration levels (Bormuth, 1968; Rankin & Culhane, 1969). The cloze procedure has been frequently used by educators to determine the ability of students to successfully read instructional materials, particularly content area textbooks.

Research demonstrated that the cloze procedure was a valid and reliable device to measure reading comprehension. Investigations were made to assess the effectiveness of cloze as a technique for improving comprehension. Cloze became a vehicle for various schemes of teaching reading comprehension which were for the most part techniques of self-instruction. Early studies in
this area could be considered exploratory and the results inconclusive. Researchers concluded that merely completing cloze tasks and receiving the scored passages with correct responses indicated was not in itself sufficient reinforcement to increase pupils' reading comprehension ability (Heitzman & Bloomer, 1967; Schneyer, 1965). These researchers suggested that the students should discuss the reasons for each choice (Schneyer, 1965) and that there be reinforcement by the teacher for correct responses, both exact word and synonyms (Heitzman & Bloomer, 1967).

Jongsma (1971) reviewed the few investigations in which cloze had been used as a teaching technique and identified five areas of weakness common to these studies. One of the problem areas was the lack of direct instruction and follow-up by the teacher. Lack of a clear definition of the problem to be investigated, weaknesses in the experimental designs, difficulties in assessing growth, and inadequate descriptions of the research design were other weaknesses of these investigations.

Since Jongsma's report was published in 1971, the use of the cloze procedure has continued to be investigated as an instructional device. Based on the conclusions of studies in this area prior to 1971, emphasis has been
placed on direct teacher involvement in the use of this technique. The cloze procedure has been found to produce significant gains in reading comprehension in elementary remedial students. Kennedy and Weener (1973) identified three cloze conditions which appeared to produce significant increases in the reading comprehension of third grade children, below average in reading, after five 20-minute training sessions using this technique. These conditions were (a) working actively with students individually or in small groups, (b) synonym scoring, and (c) a deletion pattern other than mechanical.

Sinatra (1977) used a modified cloze technique with elementary remedial students in a summer reading program. Significant gains in content vocabulary were reported. Significant results in reading comprehension were noted for the pre-second grade group. A critical part of this activity was the daily review and discussion of the cloze activity.

Research has demonstrated that use of cloze exercises can significantly increase the reading comprehension scores of poor readers. It has also been found that active teacher involvement in the use of this technique is necessary if cloze is to be effective.
Purpose

The primary purpose of this study was to investigate the effectiveness of the cloze procedure when used as a teaching technique specifically for instructing poor readers in the use of contextual cues. Subskills of reading comprehension which appeared to be affected by the use of cloze were identified. A secondary purpose was to determine whether poor readers would increase in ability to comprehend cloze material at their instructional level.

Questions to be Answered

1. Is there a significant difference in the posttest mean grade equivalent scores on the Reading Comprehension subtest of the Stanford Achievement Test between the fourth and fifth grade treatment groups and the fourth and fifth grade control groups?

2. Is there a significant difference in the posttest mean raw scores between the fourth and fifth grade treatment groups and the fourth and fifth grade control groups in the following subskill areas as measured by the Reading Comprehension subtest of the Stanford Achievement Test?
   A. Global meaning
   B. Explicit meaning
   C. Implicit meaning
D. Use of contextual clues

E. Inferential meaning

3. Is there a significant difference between the pretest and posttest mean percent scores of the fourth and fifth grade treatment groups as measured by a standard cloze test?

Need for the Study

During the past decade the potential of the cloze procedure as an active teaching technique has been recognized. A major instructional advantage of cloze is that it draws on the language itself (Bortnick & Lopardo, 1973). Students must use cues in the context and give close attention to the remaining words in the passage in order to replace the deletion (Culhane, 1970). "Performing successful closure demands that the reader attend to meaning and forces him to actively and continuously employ the mental processes necessary in comprehending" (Thomas, 1978, p. 3).

Good readers have learned to make maximal use of context, predict what's coming, and are actively involved with meaning (Weaver, 1977). Poor readers need to be taught to become actively involved with reading. They need to be taught to use cues in the passage and the redundancy of language to predict the deleted words

The cloze procedure is a viable method for improving the reading comprehension of poor readers. Further investigation into the use of cloze as an instructional technique appears to be warranted. This study investigated the effect teaching the use of contextual cues using the cloze procedure has upon the reading comprehension of poor readers.

Definition of Terms

Cloze procedure. Cloze procedure is a technique for supplying the appropriate word for each systematically deleted word in a passage.

Standard cloze test. Each passage contained approximately 250 words with a deletion pattern of every fifth word for a total of 50 deletions.

Multiple-choice cloze. Each passage contained approximately 75-100 words using a lexical deletion pattern for a total of ten deletions. For each deletion, an array of five choices was presented consisting of the omitted word and four distractors of the same word class.
Poor readers. In this study, poor readers were students identified as needing supplemental assistance in reading comprehension in an out-of-the-classroom situation. The criterion for this identification was that the student must score one or more years below grade level and/or expectancy as measured by the Reading Comprehension subtest of the Stanford Achievement Test.

Instructional level. The level of reading difficulty at which the student is able to successfully deal with the material when assisted by the teacher is considered to be the instructional level.

Grade equivalent score. A grade equivalent score is an average score at a given grade placement.

Raw score. The raw score is the total number of correct answers in a subskill category.

Global meaning. The student identified the main idea or general topic of a passage.

Explicit meaning. The student identified a meaning which was literally stated in the passage.

Implicit meaning. The student identified an implied meaning by making a deduction from facts in the passage or by recognizing information which was paraphrased.

Use of contextual clues. The student identified the meaning of a concept or a word from the context.
Inferential meaning. The student identified an inferred meaning by drawing a conclusion from the passage.

Summary

Use of the cloze procedure has been found to produce significant gains in reading comprehension over a relatively short period of time. Researchers and educators have suggested that direct instruction with this technique actively involves the student in the reading process. The comprehension of poor readers is improved since they are taught to more effectively use cues in the context.
Chapter II

Review of the Literature

Purpose

The primary purpose of this study was to investigate the effectiveness of the cloze procedure when used as a teaching technique specifically for instructing poor readers in the use of contextual cues. Subskills of reading comprehension which appeared to be affected by the use of cloze were identified. A secondary purpose was to determine whether poor readers would increase in ability to comprehend cloze materials at their instructional level.

The Cloze Procedure

The cloze procedure used as an instructional technique as well as a testing device and the reading comprehension processes of poor readers were the major concerns of this study. A review of the literature was made in these areas. The first section of this chapter will deal with the cloze procedure as it has been utilized in both testing and teaching situations.
Construction and Scoring

The cloze procedure is a method for determining an appropriate word to replace each systematically deleted word in a passage. The deleted word may be mechanically selected (i.e., every nth word) or lexically chosen (e.g., only nouns and verbs). Other variations of cloze may be described as being a modified version in which the deleted word is presented along with three or four distractors in a multiple-choice format, and a matching cloze in which the deleted words are arrayed in random order with or without distractors.

Researchers have concluded that a cloze test should be at least 250 words in length and contain 50 deletions to yield stable scores (Bormuth, 1965, 1968, 1969; Rankin & Culhane, 1969; Taylor, 1956). A verbatim scoring procedure appears to be the easiest and the most objective. Many investigators concluded that there was no advantage in scoring synonyms or other acceptable words as replacements for the deleted word (Bormuth, 1968, 1969; McKenna, 1976; Miller & Coleman, 1967; Rankin & Culhane, 1969; Taylor, 1953, 1956). However, it is conceded that in some instances (e.g., diagnosis and instruction) scoring synonyms and other syntactically and semantically acceptable words as correct may yield
important information to the teacher, diagnostician, or researcher (Bormuth, 1969; Miller & Coleman, 1967; Thomas, 1978).

Cloze as a Measure of Readability

The cloze procedure was first introduced by Taylor (1953) as a tool for measuring the readability of a given passage. Using this technique a passage could be taken from a textbook, typed in cloze format, and then completed by the student. The obtained score would be a measure of the readability of that passage and would indicate whether the student could read the text independently, whether teacher assistance would be necessary, or whether the material was too difficult for the student.

Often an assessment of the reading difficulty of a text is made by the publisher or by a teacher using one of several standard readability prediction formulas. These formulas are based on factors such as sentence length and number of difficult words, or a syllable count. These formulas ignore other factors which affect the readability of a selection (Taylor, 1953). Some of these factors are concept load, format of the material, organization of ideas, and writing patterns of the author (Hittleman, 1978). Standard formulas do not take into account linguistic constraints, including syntactic and
semantic cues, which operate between and among sentences (Ramanauskas, 1972). Since the cloze procedure seems to include these factors, it may provide the most accurate measure of reading difficulty (Bortnick & Lopardo, 1976; Hittleman, 1978; Taylor, 1953).

**Cloze as a Measure of Comprehension**

"If a passage is 'readable' and that means 'understandable,' then the scores that measure readability should measure comprehension, too" (Taylor, 1956, p. 44). Studies were conducted in which passages were constructed in a cloze format and the same passages were prepared with multiple-choice questions. High correlations were found between the cloze scores and the scores on the multiple-choice comprehension test which indicated that the cloze tests were valid measures of comprehension (Bormuth, 1968, 1969; Rankin & Culhane, 1969; Taylor, 1956).

In addition to the use of cloze as a measure of general reading comprehension, Bormuth (1969) concluded that since reading tests were constructed to measure various subskills of comprehension, cloze tests measured these same skills. These subskills were identified as vocabulary, facts, main idea, sequence, relationships, inference, and purpose. "It appears that cloze tests made by deleting every fifth word measure skills closely
related to or identical to those measured by conventional multiple choice reading comprehension tests" (Bormuth, 1969, p. 365).

More recently, Smith and Zinc (1977) identified five subskills of reading comprehension including literal comprehension, main idea, and inferential comprehension. An analysis was made of the Davis Reading Test and cloze passages were constructed from this instrument. These researchers concluded that "It appears that cloze requires a student to draw upon abilities in literal comprehension, comprehension of the main idea, inferential comprehension, and structural awareness to a degree moderately similar to the application of subskills required by the multiple choice format of the Davis Reading Test" (p. 397).

These findings provide evidence that cloze tests are valid measures of reading comprehension and its subskills as measured by a conventional standardized reading test.

**Cloze as an Instructional Technique**

Although much of the early research concentrated on the use of cloze as a measure of readability and as a measure of comprehension, investigations were also made to determine the feasibility of using the cloze procedure as a technique for teaching reading comprehension. Most
of these studies used cloze in a self-teaching situation. One of the first attempts to use cloze as an instructional device was made by Roossinck (cited in Jongsma, 1971). Cloze was incorporated into a linear programmed learning procedure. Sixth-grade students completed cloze exercises in a self-teaching, self-correcting, non-overtly reinforced instructional scheme. No significant gains in comprehension were observed in this exploratory study.

Scheyer (1965) also investigated the use of cloze with sixth-grade students. The students completed cloze exercises which were scored and returned to them the following day. These students did not show significantly greater improvement in reading comprehension when compared with students who did not complete cloze exercises. He concluded that merely completing a series of cloze passages was not in itself sufficient reinforcement to increase reading comprehension ability. This conclusion was corroborated by Heitzman and Bloomer (1967) who determined that use of non-overt reinforced cloze procedure was not effective for producing an increase in reading comprehension.

It became apparent that the cloze procedure was not intrinsically reinforcing and motivating, and improved comprehension scores were not evident. In
addition, little actual teaching had been done using this technique. Investigators suggested that there be discussion of the completed passages, with students verbalizing their reasons for the appropriateness of responses (Culhane, 1970; Heitzman & Bloomer, 1967; Schneyer, 1965). In addition, these researchers concluded that feedback and reinforcement by the teacher for correct responses—both exact words and synonyms—was crucial to the effectiveness of this procedure.

Although some studies reported nonsignificant findings (Guice, 1969; Heitzman & Bloomer, 1967; Schneyer, 1965), there were strong indications that cloze was potentially an important instructional technique. In recent years, the application of cloze to various classroom and clinic situations has been the subject of much speculation, but few investigations.

Bortnick and Lopardo (1973) and Lee (1978) suggested that cloze lends itself to instruction in the use of contextual cues as a reading strategy. Reading strategies to be used in helping students learn to use the context more effectively were specified by Bortnick and Lopardo (1973). These authors recommended that teachers delineate for students the following strategies:
1. Certain words (e.g., nouns, adjective markers) in the immediate environment of the deletion cue the reader.

2. The position of words in a sentence gives cues. A first or last word deletion limits the possibilities of choice.

3. The redundancy of language within the passage provides the reader with cues. Often a deletion at the beginning of a passage is clarified by information later in the passage. (p. 299)

Culhane (1970) suggested that the cloze technique would be appropriate to use with "word callers"—those students with excellent word recognition skills but who fail to comprehend the passage. The cloze procedure focuses the attention of the reader on the message of the passage in order for him to correctly predict the deleted words.

Thomas (1978) listed eight types of cloze activities which may be used. He suggested that cloze could be used to teach and give practice in the following skills:

1. General context clues. An every-fifth word deletion pattern is useful for training students in the general use of context clues. For instructional purposes exact word replacement is not mandatory and accepting synonyms may be appropriate and desirable.

2. Content/context clues. A selective lexical deletion pattern has been proven to be of value with content reading material.
3. **Process strategies/combined cues.** Cloze activities can be designed for application of grapho-phonetic cues in combination with semantic and syntactic information.

4. **Specific phonetic elements.** Cloze exercises can be designed using a selective deletion pattern to give practice in application of specific phonetic elements.

5. **Specific morphemic elements.** The cloze technique can be used to give practice with root words, prefixes, and suffixes.

6. **Relationships: Function words.** Cloze can be used to give practice in the use of prepositions, articles, conjunctions, and auxiliary verbs. These words often cue the reader to perceive interrelationships among ideas within and between sentences.

7. **Relationships: Pronoun and pronoun referent.** The cloze procedure can be used to focus attention on these relationships.

8. **Relationships: Organizational patterns.** Cloze passages can be prepared to give practice with the following patterns of paragraph organization: (a) simple listing (e.g., first, next, last), (b) time order (e.g., before, on, after), (c) comparison/contrast (e.g., but, unlike, either-or), and (d) cause/effect (e.g., because, since, as a result). (pp. 4-10)

Thomas (1978) also outlined the following steps to be used when teaching with cloze:

1. **Presentation and preparation.** In this step, the teacher should develop motivation and background. The purpose for doing the exercise should be clarified. A short practice exercise should be provided. The teacher should work through
the material with the students and verbalize his/her thinking while modeling the process. The material to be used should be at the students' instructional or independent level.

2. **Preview and completion.** Three readings of the exercise are recommended. The first reading will preview the material and establish a mind-set for the activity. On the second reading, the student will write his responses. The third reading will provide a check of whether his responses are syntactically and semantically acceptable.

3. **Follow-up.** This crucial step should center around the students' sharing of their responses. The teacher should lead the students to discuss alternative words and possible variations. The discussion should include explanations of why each word was selected. "This step may be difficult and tedious, but should not be overlooked" (p. 12). (pp. 11-12)

Thomas cautioned that "cloze activities are recommended for purposes of augmenting, not supplanting, other established reading methods" (p. 12).

Weaver (1977) suggested that the cloze technique appeared to lend itself to the development of the ability to predict what's coming next, a skill good readers possess. She indicated that poor readers often are unable to make accurate or reasonable predictions and that cloze would help to develop this skill.

Despite the articles which have appeared in journals during the past decade describing specific situations in
which cloze may be used, as well as detailing procedures for using this technique, there are few studies in which cloze was used in a teacher-directed learning situation. Kennedy and Weener (1973) investigated the use of the cloze technique in teaching third grade children who were below average in reading. Significant increases in reading comprehension were achieved by the treatment group on the Durrell Reading/Listening Test after a relatively short period of training with cloze exercises. These investigators implied that use of the cloze procedure may be valuable as a remedial reading technique.

A study by Gunn and Elkins (1976) used cloze exercises to teach the use of context clues to third grade children. This technique was found to be effective in improving reading comprehension.

Sinatra (1977) used a lexical cloze technique with elementary students during a 5-week summer remedial reading program to review and reinforce content vocabulary. Significant pretest-posttest gains in content vocabulary on a modified cloze test were reported. Pre-second graders made significant pretest-posttest gains in reading comprehension as measured by Level I of the Stanford Diagnostic Reading Test. Positive, although not significant, gains were achieved at the other grade levels.
Payne (1979) developed multiple-choice cloze exercises from content materials for use in a fifth grade classroom. Significant results in reading comprehension were achieved by the treatment group on both the Degrees of Reading Power Test and a standard cloze test constructed from narrative materials after four months of instruction.

In summary, teaching with cloze has resulted in significant increases in comprehension in some instances and no significant gains in others. One important factor seems to be the amount of teacher involvement in the learning process. The conclusion can be made that the cloze procedure cannot be used effectively as a method of self-instruction. Authorities point out that cloze is not a reading comprehension program in and of itself, but its greatest potential may be as a supplement to other methods of teaching reading. Cloze also appears to have potential as a method for improving the comprehension of poor readers in both classroom and clinic situations.

A Comparison of Good and Poor Readers

The second part of this chapter will discuss some of the differences between good and poor readers. A review of the literature in this area reveals that good readers have developed and effectively use strategies
which enable them to obtain meaning from the printed page. Poor readers either have not developed these strategies or do not efficiently and effectively process cues in the passage to derive adequate meaning from their reading.

Researchers have determined that there appear to be two groups of poor readers. One group, the deficit poor readers, is primarily deficient in grapheme-phoneme association skills. The difference group, on the other hand, has adequate word identification skills, but is primarily deficient in comprehension ability (Guthrie, 1973; Isakson & Miller, 1976).

Oaken, Wiener, and Cromer (1971) in a study of good and poor readers in the fifth grade, demonstrated "that good [word] identification is not a sufficient condition for good comprehension for all readers" (p. 76). These researchers concluded that "for a certain class of reader, methods of instruction which primarily emphasize word identification skills are not sufficient for the development of a high level of reading comprehension. In fact, this focus upon the word may impede the imposition of organization even after identification skill is mastered" (p. 78).
Guthrie (1973) corroborated this conclusion in a study involving 10-year old disabled readers and 7-year old good readers. Results indicated that although the older poor readers knew the vocabulary required to read the passages at the first and second grade levels, they did not comprehend as well as the children who were younger.

Adequate and sufficient skill in decoding is a prerequisite to comprehension. However, accurate word identification skills do not preclude good reading comprehension ability. Goodman (1973) stated that "remedial reading classes are filled with youngsters in late elementary and secondary schools who can sound out words but get little meaning from their reading" (p. 491). Children with good decoding skills who are able to read fluently and identify words accurately, but who fail to comprehend the written message were identified by Culhane (1970) as "word callers."

Since word recognition is not a problem for these readers, other factors must be explored to explain their poor comprehension ability. "Authorities in reading education suggest that comprehension of written material requires ongoing, cognitive interaction with the ideas as presented by the writer of the selection" (Thomas,
1978, p. 3). Good readers are actively involved with meaning. They make maximum use of syntactic cues, contextual cues, and anticipate what's coming next (Neville & Pugh, 1976; Steiner, Wiener, & Cromer, 1971; Weaver, 1977). Good readers are more concerned with meaning than with precise visual identification.

Weaver (1977) listed three characteristics of good readers. Good readers tend to:

1. Predict what's coming next;
2. Make miscues that preserve meaning and leave these uncorrected;
3. Correct those few miscues that don't make sense in context. (p. 883)

Poor readers, on the other hand, have difficulty anticipating what is coming. They appear to read in a sequential word-by-word manner without using syntactic and semantic cues to integrate the meanings of individual words into longer units of meaning (Golinkoff, 1976; Isakson & Miller, 1976; Neville & Pugh, 1976; Steiner, Wiener, & Cromer, 1971). In addition, these readers make more miscues and correct fewer of them even when the errors distort meaning. Weber (1970) observed that good comprehenders ignored miscues which conformed to the meaning of the sentence. She also reported that good comprehenders corrected twice as many errors that distorted meaning as poor comprehenders did.
After reviewing the literature in this area, Golinkoff (1976) determined that poor readers may have unconventional standards of what is acceptable or they may not possess efficient strategies for detecting errors which distort meaning.

Several researchers have used the cloze procedure to study differences between good and poor readers. A cloze task should reveal underlying strategies which are used by skilled silent readers and which are lacking or not effectively used by poor readers. To successfully complete a cloze passage, the reader must predict what's coming, use syntactic cues in the passage, utilize the contextual or semantic cues available, be aware of the redundancy of language, and integrate prior experiential knowledge and knowledge of the structure of language.

Miller & Coleman (1967) in a study using college students found considerable sequential constraint between words within sentences. Interestingly, they found little constraint across sentences and concluded that cloze responses "are constrained very slightly, if at all, by words from other sentences" (p. 853).

Skilled readers seem to possess reading skills which would be particularly successful on a cloze task. It would be expected that poorer readers would not
perform as well since they tend to deal with each word sequentially using little contextual constraint (Neville & Pugh, 1976). These expectations were realized on a cloze task. "Possibly they made use of the sequential knowledge thus built up, but it seems unlikely that they waited for, or looked for, further information from the text before filling a gap in the cloze test of reading" (p. 28).

In a previous study using a cloze task with fifth graders, Cromer and Wiener (1966) ascertained that good readers made a significantly greater number of correct insertions than poor readers did and that good readers used words which appeared with high frequency on this task, while poor readers gave infrequently used, or idiosyncratic words. These researchers concluded that good and poor readers differ in ability to discriminate contextual cues and to utilize the available cues. Consequently, poor readers do not obtain adequate meaning from the sentence or passage.

Kennedy and Weener (1973) concluded that poor comprehenders could be trained with cloze exercises to utilize contextual cues to gain meaning from the text. It was inferred from the results that training with the cloze procedure caused students to give attention to
units larger than the word. Since significant improve-
ment was observed, it provided evidence that the children
had learned to attend to information in the context which
enabled them to supply words which were syntactically
and semantically acceptable.

Research has provided evidence that the cloze
procedure is a viable technique for helping poor readers
(comprehenders) learn to make more effective use of the
syntactic and semantic information available in written
material. In addition, the cloze procedure forces
attention to meaning since the reader has to apply not
only contextual cues, but his own knowledge and experience
to make a successful closure.

"Reading comprehension requires an active, attentive
and selective reader who, to some extent, operates
independently of the text to extract meaning from it"
(Golinkoff, 1976, p. 656). Thomas (1978) concluded
that the cloze task is a method of helping poor readers
improve comprehension by:

1. Forcing the reader to rely upon at least
two, and often all three, of the sources
of information available during reading
which were identified by Goodman (1973):
(a) grapho-phonic, (b) syntactic, and
(c) semantic.
2. Requiring focused attention during reading on the author's representation of ideas, thus making the reading experience an active, on-going, meaning-getting experience.

3. Facilitating an understanding of the relationships between language features which cue meaning in oral/aural contexts and their counterparts in written contexts. (p. 4)

It can be seen that the cloze procedure has the potential for helping poor readers learn to use contextual cues more efficiently and effectively during silent reading.

Summary

During the past two decades, the cloze procedure has been widely used as a measure of readability and as a test of comprehension. It has also been used as an instructional device although to a lesser extent. Researchers and educators have recognized the potential of cloze in both a classroom and clinic setting.

The cloze procedure appears to be useful in work with poor readers. Children with adequate word recognition skills but poor comprehension may be helped through use of this technique. Research indicates that poor readers do not effectively use contextual cues to aid them in understanding what they read. They read as if the individual words had no relationship to each
other and fail to recognize and utilize the redundancy of language.

Other characteristics of poor readers include an inability to predict what's coming next, uncorrected miscues which distort meaning, and apparent failure to relate prior knowledge and experience to the reading situation.

Research indicates that the cloze technique may be effective in helping poor readers improve their comprehension.
Chapter III

Design of the Study

Purpose

The primary purpose of this study was to investigate the effectiveness of the cloze procedure when used as a teaching technique specifically for instructing poor readers in the use of contextual cues. Subskills of reading comprehension which appeared to be affected by the use of cloze were identified. A secondary purpose was to determine whether poor readers would increase in ability to comprehend cloze material at their instructional level.

Hypotheses

Fourteen null hypotheses were formulated to test the effectiveness of teaching with the cloze procedure.

1. There is no significant difference in the mean grade equivalent scores on the posttest of the Stanford Achievement Test, Reading Comprehension subtest, between the fourth grade treatment group and the fourth grade control group.

2. There is no significant difference in the mean grade equivalent scores on the posttest of the Stanford Achievement Test, Reading Comprehension subtest, between
the fifth grade treatment group and the fifth grade control group.

3. There is no significant difference between the posttest mean raw scores of the fourth grade treatment group and the fourth grade control group in ability to determine global meaning as measured by the Reading Comprehension subtest of the Stanford Achievement Test.

4. There is no significant difference between the posttest mean raw scores of the fourth grade treatment group and the fourth grade control group in ability to determine explicit meaning as measured by the Reading Comprehension subtest of the Stanford Achievement Test.

5. There is no significant difference between the posttest mean raw scores of the fourth grade treatment group and the fourth grade control group in ability to determine implicit meaning as measured by the Reading Comprehension subtest of the Stanford Achievement Test.

6. There is no significant difference between the posttest mean raw scores of the fourth grade treatment group and the fourth grade control group in ability to use contextual clues as measured by the Reading Comprehension subtest of the Stanford Achievement Test.

7. There is no significant difference between the posttest mean raw scores of the fourth grade treatment
group and the fourth grade control group in ability to determine inferential meaning as measured by the Reading Comprehension subtest of the Stanford Achievement Test.

8. There is no significant difference between the posttest mean raw scores of the fifth grade treatment group and the fifth grade control group in ability to determine global meaning as measured by the Reading Comprehension subtest of the Stanford Achievement Test.

9. There is no significant difference between the posttest mean raw scores of the fifth grade treatment group and the fifth grade control group in ability to determine explicit meaning as measured by the Reading Comprehension subtest of the Stanford Achievement Test.

10. There is no significant difference between the posttest mean raw scores of the fifth grade treatment group and the fifth grade control group in ability to determine implicit meaning as measured by the Reading Comprehension subtest of the Stanford Achievement Test.

11. There is no significant difference between the posttest mean raw scores of the fifth grade treatment group and the fifth grade control group in ability to use contextual clues as measured by the Reading Comprehension subtest of the Stanford Achievement Test.
12. There is no significant difference between the posttest mean raw scores of the fifth grade treatment group and the fifth grade control group in ability to determine inferential meaning as measured by the Reading Comprehension subtest of the Stanford Achievement Test.

13. There is no significant difference between the pretest and posttest mean percent scores of the fourth grade treatment group as measured by a standard cloze test.

14. There is no significant difference between the pretest and posttest mean percent scores of the fifth grade treatment group as measured by a standard cloze test.

Methodology

Subjects

The subjects were 31 fourth and fifth grade students in one middle-class suburban elementary school. These students had been identified as poor readers according to the criterion noted previously (see Definition of Terms, page 7). There were 21 fourth grade and 10 fifth grade students who participated in the study. The treatment groups consisted of 12 fourth grade and 6 fifth grade students who were receiving supplemental instruction in the Reading Center. The control groups were also receiving supplemental instruction in the Reading Center and were composed of 9 fourth grade and 4 fifth grade students.
The treatment and control groups were compared by mean IQ scores and mean reading comprehension grade equivalent scores prior to the start of treatment. Independent $t$ tests were performed on these data to establish the equality of the groups. No significant difference was found at the .05 level of significance between the mean IQ scores of the fourth grade treatment group and the fourth grade control group. The Reading Comprehension subtest of the Stanford Achievement Test, Intermediate I, Form B was also administered to both groups. There was no significant difference at the .05 level of significance between the mean grade equivalent scores of the fourth grade treatment and control groups (see Table 1).

Table 1
Mean Reading Comprehension and IQ Scores: Grade 4

<table>
<thead>
<tr>
<th>Group</th>
<th>IQ Mean</th>
<th>SD</th>
<th>Reading Comprehension Grade Equivalent Mean</th>
<th>SD</th>
</tr>
</thead>
<tbody>
<tr>
<td>Treatment</td>
<td>96.83</td>
<td>8.78</td>
<td>4.1</td>
<td>5.92</td>
</tr>
<tr>
<td>Control</td>
<td>98.44</td>
<td>12.25</td>
<td>4.2</td>
<td>5.40</td>
</tr>
<tr>
<td>$t$ value</td>
<td>-.33*</td>
<td></td>
<td>$-.57^*$</td>
<td></td>
</tr>
</tbody>
</table>

$t_{crit}(19) = 2.09$

$p > .05$
Similarly, there was no significant difference at the .05 level of significance between the mean IQ scores of the fifth grade treatment group and the fifth grade control group. In addition, these groups were administered the Reading Comprehension subtest of the Stanford Achievement Test, Intermediate II, Form B prior to the start of treatment. No significant difference was found between the mean grade equivalent scores of the fifth grade treatment and control groups at the .05 level of significance (see Table 2).

Table 2
Mean Reading Comprehension and IQ Scores: Grade 5

<table>
<thead>
<tr>
<th>Group</th>
<th>IQ</th>
<th>Reading Comprehension Grade Equivalent</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Mean</td>
<td>SD</td>
</tr>
<tr>
<td>Treatment</td>
<td>97.83</td>
<td>5.84</td>
</tr>
<tr>
<td>Control</td>
<td>99.50</td>
<td>7.76</td>
</tr>
<tr>
<td>t value</td>
<td>-0.35*</td>
<td></td>
</tr>
<tr>
<td>t crit(8)</td>
<td>2.31</td>
<td></td>
</tr>
</tbody>
</table>

*t p > .05
Instruments

The following tests were used to assess pre-treatment status as well as post-treatment achievement levels for all groups:

1. The Lorge-Thorndike Intelligence Test (1964) was used to establish mean IQ scores for both treatment and control groups. The scores for the fourth grade groups were obtained from the January 1979 test administration. The scores for the fifth grade groups were obtained from the January 1980 test administration.

2. The Reading Comprehension subtest of the Stanford Achievement Test (1972) was used as a pretest and posttest for both treatment and control groups. Intermediate I, Forms A and B, were used to obtain mean grade equivalent scores in reading comprehension as well as subskill mean raw scores for the fourth grade groups. Intermediate II, Forms A and B, were used to obtain mean grade equivalent scores in reading comprehension as well as subskill mean raw scores for the fifth grade groups.

3. A standard cloze test, Forms A and B, was developed by the researcher for use as a pretest and posttest to assess changes in reading ability for the treatment groups. Passages of approximately 250 words were taken from two basal reading series which were not
used in the classrooms. The passages were selected from those listed in Appendix A. Those chosen were as nearly equal as possible in readability. Subject matter and interest were also taken into consideration when making the selections.

The cloze tests were untimed and students were encouraged to fill in all blanks even if they guessed. Responses were scored as correct if they were syntactically and semantically acceptable with the content of the passage. Percent cut-off points were based on studies by Bormuth (1968) and Rankin and Culhane (1969) who established the following reference points for cloze tests:

**Bormuth (1968)**

- 57%+ = Independent Level
- 44 - 56% = Instructional Level
- -44% = Frustration Level

**Rankin and Culhane (1969)**

- 61%+ = Independent Level
- 41 - 60% = Instructional Level
- -41% = Frustration Level
For purposes of this study, the percent score reference points were set at:

- $66\%+$ = Independent Level
- $40 - 65\%$ = Instructional Level
- $-40\%$ = Frustration Level

The instructional range was arbitrarily extended to account for the higher scores which would be attainable due to the acceptance of synonyms and other words both syntactically and semantically in keeping with the context of the material.

**Procedure**

All treatment and control groups were pretested with the appropriate level of the Reading Comprehension subtest, Form B, of the Stanford Achievement Test during the last week in January. In addition, the fourth and fifth grade treatment groups were pretested with the standard cloze test, Form A, during the last 2 weeks in January. The test for the fourth grade group was on a $3^{\frac{1}{2}}$ grade level in reading difficulty. The test for the fifth grade group was on a $4^{\frac{1}{2}}$ grade level.

The treatment groups received direct instruction using multiple-choice cloze and standard cloze exercises over a period of 10 weeks beginning the first week in
February and continuing through April. The groups, four to six students in size, were instructed using cloze exercises three times each week in sessions of 15 to 20 minutes in length. Since each student was assigned to the Reading Center for one-half hour of instruction daily, the remainder of these sessions was spent on vocabulary development, listening skills, or other reading activities (e.g., locating information and following directions). The remaining two periods were spent doing independent assignments using appropriate levels of Reading for Meaning (Lippincott Publishing Company) and Practicing Reading (Random House) with assistance and instruction by the researcher or aide.

The fourth and fifth grade control groups also were assigned to five half-hour periods of instruction in the Reading Center each week. These children received no instruction or practice with multiple-choice cloze or cloze materials and no change was made in the regular individualized instructional procedure. These students worked independently on reading comprehension, vocabulary development, listening skills, and other reading activities with assistance and instruction by the reading teacher or aide. In addition to the appropriate levels of the previously mentioned materials, McCall-Crabbs Standard
Test Lessons in Reading (Teachers College Press) and Reading for Concepts (McGraw-Hill Book Company) were used. Treatment procedures were suggested in Comprehension Through Active Processing (The University of the State of New York). The following strategies were used:

1. **Use of contextual cues.** Students used cues in the passage to select an appropriate word to fill in a blank. The word selected had to sound right (be syntactically functional) and make sense (be semantically plausible) when read in the sentence. Students were taught to read beyond the blank before choosing a word.

2. **Pronouns and referents.** Students circled pronouns in the passage which referred to a particular noun or proper noun.

3. **Signal words.** Students circled time markers (e.g., before, then, now, soon) and signals of order (e.g., first, second, next) in the passage to aid in time relationships and sequence of events. In some instances, events were listed in scrambled order and the students numbered the statements in correct sequence.

4. **Main idea.** Students verbally stated important details of the passage and integrated these details into a written statement of the main idea. They also wrote titles for some of the selections as a substitute for a statement of main idea.
Authorities have suggested organizing instruction so that the student's initial exposure to cloze will be highly structured (Bortnick & Lopardo, 1973; Kennedy, 1974; Rankin & Overholser, 1969). In this way the student will be assured of maximum context as well as maximum potential for success. Gradually the number of words between deletions can be decreased.

Following these guidelines, the 10-week period was divided into four phases of cloze treatment. Instruction was introduced by using multiple-choice cloze exercises for a period of 3 weeks. The remaining 7 weeks were divided as follows: (a) a 10-word deletion pattern, 1 week; (b) a 7-word deletion pattern, 3 weeks; and (c) a 5-word deletion pattern, 3 weeks.

Multiple-choice cloze exercises of appropriate difficulty for each treatment group were selected from passages available to the researcher (see Note 1). The fourth grade group completed passages with readabilities of third and fourth grade. The fifth grade group completed passages of fourth and fifth grade readabilities. A sample of a multiple-choice cloze exercise is found in Appendix B.

The cloze passages were prepared by the researcher from various trade books and children's literature.
Appendix C lists the titles and authors of the books from which passages were selected. Readabilities were performed on all passages using the Revised Spache Readability Formula (1974) to determine readability through grade three. The Dale-Chall Readability Formula (1948) was used to evaluate passages with readabilities of grade four and higher. The fourth grade children completed cloze exercises of third grade difficulty while the fifth graders completed exercises of fourth grade difficulty. These levels were considered to be at the instructional levels of the students.

Each passage was typed on standard typing paper and duplicated for student use. The passages were double-spaced with a 15-space line for each deleted word. Each passage had between 12 and 15 deletions, consisted of 75-125 words, and the first and last sentences were intact.

The particular teaching strategy to be emphasized was dependent upon the passage. Following each passage directions were given or questions were asked to reinforce the strategy employed. Samples of cloze exercises are found in Appendix D.

At the beginning of the treatment period, passages were read orally by one member of the group. Questions
were asked by the researcher to elicit answers which could be ascertained from the passage despite certain words having been deleted. The researcher then read the passage orally with students suggesting words to insert in each blank. The discussion centered around the following points: (a) the word must sound right (be syntactically functional) when it is read in the blank; (b) the word must make sense (be semantically plausible) with the rest of the sentence and the story; and (c) cues must be found in the passage to support the choice of word. In some instances, familiarity with language patterns was necessary in order to supply a word (e.g., "... quick as ___________ wink. . ." and "... and ___________ between were yellowish patches. . ."). When no cues were available, any reasonable response was acceptable (e.g., "An old, pointed, ___________ hat. . .").

Gradually the students read the story silently and filled in as many of the deleted words as they could. Then the passage was read orally by the researcher and responses were made by the students and discussed by the group. Assistance in the form of questions and help in searching for cues in the passage was given for any blanks which had been omitted.
Vocabulary and concept development were included where necessary and/or desirable. The students were helped to draw from their own backgrounds and experiences as well as their knowledge of language structures to think of possible words and to select the best word to fill in the deletion.

Upon completion of the 10-week instructional period, the students in the treatment groups were posttested with Form B of the standard cloze test. (All cloze tests are found in Appendix E.) Responses were counted correct if the word was an exact replacement or was both syntactically and semantically acceptable. All treatment and control groups were administered the appropriate level of the Stanford Achievement Test, Reading Comprehension subtest, Form A.

**Statistical Analysis**

The data were analyzed using a series of $t$ tests to determine significance at the .05 level of significance. The posttest grade equivalent and subskill raw scores on the Reading Comprehension test were analyzed by use of a $t$ test for independent means. The pretest and posttest scores of the treatment groups on the standard cloze test were tested for significant differences using a $t$ test for related measures.
Summary

This study was designed to assess the effects of teaching with cloze upon the reading comprehension of poor readers. Specific teaching strategies were employed to help poor readers make more efficient and effective use of contextual cues in the passage, prior knowledge, and knowledge of language structures. The 10-week treatment period was structured so that students received a maximum amount of information from the first passages which were presented as well as a maximum amount of assistance from the researcher. This gradually gave way to more frequent deletion patterns and more individual effort in completing the exercises. A critical part of each lesson was the discussion of responses and the locating of cues in the passage to support the choice of word.

A series of t tests for independent means were used to determine whether significant differences in achievement occurred between the treatment and control groups on the Reading Comprehension subtest of the Stanford Achievement Test. The pretest and posttest scores of the fourth and fifth grade treatment groups on the standard cloze test were analyzed using a t test for related measures.
Chapter IV

Analysis of the Data

Purpose

The primary purpose of this study was to investigate the effectiveness of the cloze procedure when used as a teaching technique specifically for instructing poor readers in the use of contextual cues. Subskills of reading comprehension which appeared to be affected by the use of cloze were identified. A secondary purpose was to determine whether poor readers would increase in ability to comprehend cloze material at their instructional level.

Findings and Interpretations

This study was designed to assess the effectiveness of teaching poor readers using the cloze procedure. The three areas in which this assessment was made were general reading comprehension as measured by a standardized reading achievement test, subskills of comprehension as measured by the same test, and comprehension of cloze material as measured by a standard cloze test. Fourteen null hypotheses were formulated to test the results of instruction using this technique.
Reading Comprehension

The first two hypotheses were to determine whether the treatment groups attained, as a result of being taught with cloze, mean grade equivalent scores which were significantly higher than those of the control groups on the standardized reading comprehension posttest.

1. There is no significant difference in the mean grade equivalent scores on the posttest of the Stanford Achievement Test, Reading Comprehension subtest, between the fourth grade treatment group and the fourth grade control group.

2. There is no significant difference in the mean grade equivalent scores on the posttest of the Stanford Achievement Test, Reading Comprehension subtest, between the fifth grade treatment group and the fifth grade control group.

A t test for independent means was used to analyze the data for both the fourth and fifth grade treatment and control groups. Table 3 shows the data for the fourth grade groups.
Table 3
Posttest Mean Reading Comprehension Scores: Grade 4

<table>
<thead>
<tr>
<th>Group</th>
<th>Mean Grade Equivalent</th>
<th>Standard Deviation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Treatment</td>
<td>4.5</td>
<td>6.53</td>
</tr>
<tr>
<td>Control</td>
<td>4.8</td>
<td>7.32</td>
</tr>
</tbody>
</table>

\( t \) value \(-.71^*\)

\( t_{\text{crit(19)}} = 2.09 \)

\(^*p > .05\)

The difference between the mean grade equivalent scores of the fourth grade groups was not large enough for significance. Similarly, no significant difference occurred between the mean grade equivalent scores of the fifth grade groups as can be seen in Table 4.

Table 4
Posttest Mean Reading Comprehension Scores: Grade 5

<table>
<thead>
<tr>
<th>Group</th>
<th>Mean Grade Equivalent</th>
<th>Standard Deviation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Treatment</td>
<td>4.9</td>
<td>7.59</td>
</tr>
<tr>
<td>Control</td>
<td>5.0</td>
<td>1.87</td>
</tr>
</tbody>
</table>

\( t \) value \(-.23^*\)

\( t_{\text{crit(8)}} = 2.31 \)

\(^*p > .05\)
The analysis of the data failed to reject the first two null hypotheses.

It appears that instruction using the cloze procedure had no measurable influence on the posttest scores of these poor readers. It may be conjectured that the skills which were developed during practice with narrative cloze materials did not transfer to the expository multiple-choice format of the Stanford Achievement Test. It is also possible that 30 exposures to cloze activities were not sufficient to develop transferable skill in using syntactic and semantic cues to derive meaning, recognizing the redundancy of language, applying experiential and linguistic knowledge in various reading situations, and integrating information within, between, and among sentences.

**Subskills of Comprehension**

Hypotheses 3 through 7 were to determine which subskills appeared to be most affected by the use of the cloze procedure with the fourth grade group.

3. There is no significant difference between the posttest mean raw scores of the fourth grade treatment group and the fourth grade control group in ability to determine global meaning as measured by the Reading Comprehension subtest of the Stanford Achievement Test.
4. There is no significant difference between the posttest mean raw scores of the fourth grade treatment group and the fourth grade control group in ability to determine explicit meaning as measured by the Reading Comprehension subtest of the Stanford Achievement Test.

5. There is no significant difference between the posttest mean raw scores of the fourth grade treatment group and the fourth grade control group in ability to determine implicit meaning as measured by the Reading Comprehension subtest of the Stanford Achievement Test.

6. There is no significant difference between the posttest mean raw scores of the fourth grade treatment group and the fourth grade control group in ability to use contextual clues as measured by the Reading Comprehension subtest of the Stanford Achievement Test.

7. There is no significant difference between the posttest mean raw scores of the fourth grade treatment group and the fourth grade control group in ability to determine inferential meaning as measured by the Reading Comprehension subtest of the Stanford Achievement Test.

An item analysis was undertaken to determine each student's posttest raw score for each of the five subskill areas. Mean raw scores for the treatment and control groups were found for each subskill. Table 5 shows the mean raw score data for the fourth grade groups.
Table 5

Subskill Mean Raw Scores: Grade 4

<table>
<thead>
<tr>
<th>Subskill</th>
<th>Treatment Group</th>
<th>SD</th>
<th>Control Group</th>
<th>SD</th>
<th>t value*</th>
</tr>
</thead>
<tbody>
<tr>
<td>Global Meaning</td>
<td>1.75</td>
<td>1.09</td>
<td>2.44</td>
<td>1.64</td>
<td>-1.11</td>
</tr>
<tr>
<td>Explicit Meaning</td>
<td>10.25</td>
<td>3.37</td>
<td>12.44</td>
<td>3.80</td>
<td>-1.33</td>
</tr>
<tr>
<td>Implicit Meaning</td>
<td>3.92</td>
<td>1.04</td>
<td>4.78</td>
<td>1.23</td>
<td>-1.65</td>
</tr>
<tr>
<td>Context Clues</td>
<td>3.75</td>
<td>1.42</td>
<td>3.33</td>
<td>1.56</td>
<td>.61</td>
</tr>
<tr>
<td>Inferential Meaning</td>
<td>9.58</td>
<td>2.06</td>
<td>8.56</td>
<td>2.32</td>
<td>1.01</td>
</tr>
</tbody>
</table>

$t_{crit}(19) = 2.09$

*p > .05

The fourth grade treatment group did not achieve posttest mean raw scores which were significantly greater than those obtained by the control group in any subskill area. The group taught with cloze obtained slightly higher scores in the use of context clues to derive word meaning and in drawing conclusions to determine inferred meanings.

The analysis of the data failed to reject these five null hypotheses for the fourth grade group.

Hypotheses 8 through 12 were to determine which subskills appeared to be most affected by the use of the cloze procedure with the fifth grade group.
8. There is no significant difference between the posttest mean raw scores of the fifth grade treatment group and the fifth grade control group in ability to determine global meaning as measured by the Reading Comprehension subtest of the Stanford Achievement Test.

9. There is no significant difference between the posttest mean raw scores of the fifth grade treatment group and the fifth grade control group in ability to determine explicit meaning as measured by the Reading Comprehension subtest of the Stanford Achievement Test.

10. There is no significant difference between the posttest mean raw scores of the fifth grade treatment group and the fifth grade control group in ability to determine implicit meaning as measured by the Reading Comprehension subtest of the Stanford Achievement Test.

11. There is no significant difference between the posttest mean raw scores of the fifth grade treatment group and the fifth grade control group in ability to use contextual clues as measured by the Reading Comprehension subtest of the Stanford Achievement Test.

12. There is no significant difference between the posttest mean raw scores of the fifth grade treatment group and the fifth grade control group in ability to determine inferential meaning as measured by the Reading Comprehension subtest of the Stanford Achievement Test.
Table 6

Subskill Mean Raw Scores: Grade 5

<table>
<thead>
<tr>
<th>Subskill</th>
<th>Treatment Group</th>
<th>SD</th>
<th>Control Group</th>
<th>SD</th>
<th>t value*</th>
</tr>
</thead>
<tbody>
<tr>
<td>Global Meaning</td>
<td>4.83</td>
<td>1.95</td>
<td>4.75</td>
<td>.83</td>
<td>.07</td>
</tr>
<tr>
<td>Explicit Meaning</td>
<td>10.67</td>
<td>3.82</td>
<td>11.25</td>
<td>2.77</td>
<td>-.23</td>
</tr>
<tr>
<td>Implicit Meaning</td>
<td>4.83</td>
<td>.69</td>
<td>6.25</td>
<td>.83</td>
<td>-2.63**</td>
</tr>
<tr>
<td>Context Clues</td>
<td>2.00</td>
<td>1.15</td>
<td>1.50</td>
<td>.87</td>
<td>.66</td>
</tr>
<tr>
<td>Inferential Meaning</td>
<td>4.67</td>
<td>1.97</td>
<td>4.25</td>
<td>2.17</td>
<td>.28</td>
</tr>
</tbody>
</table>

$t_\text{crit}(8) = 2.31$

*$p > .05$

**$p < .05$

It can be seen in Table 6 that a significant difference between the mean raw scores of the groups was noted in only one subskill area. The control group attained a significantly greater score in ability to determine implicit meaning. The computed $t$ values for the other subskill areas fall within a limited range (-.23 to .66) indicating that there is almost no difference between the mean scores of the two groups. In addition, considering the very small number of students involved, it may be considered that this score occurred by chance.
The fourth and fifth grade groups taught with cloze did not achieve mean scores in any of the subskill areas which were significantly different from the groups who received no cloze training. However, the cloze groups did slightly better in two areas—use of contextual clues to derive meaning and inferential meaning. It appears worthwhile to investigate these areas further to determine whether cloze does develop the ability to determine word meaning from the context and the ability to make inferences by drawing conclusions.

The question is raised of why it appears that cloze had no apparent effect on items measuring explicit meaning. This was unexpected since many of the responses were literally stated in the cloze exercises and the children were taught to look for these cues.

As has been previously stated, the treatment period may not have been long enough to develop these skills to a degree sufficient for transfer to a different type of comprehension task. In addition, the small sample makes it difficult to interpret these findings with any degree of certainty.

The results of the analysis of the data indicate that use of the cloze technique did not have significant effects on any of the five subskill areas measured by
the Stanford Achievement Test and failed to reject the null hypotheses for the treatment groups.

Comprehension of Cloze Material

The last two hypotheses were to test whether a significant increase occurred in the ability of the treatment groups to comprehend cloze material.

13. There is no significant difference between the pretest and posttest mean percent scores of the fourth grade treatment group as measured by a standard cloze test.

14. There is no significant difference between the pretest and posttest mean percent scores of the fifth grade treatment group as measured by a standard cloze test.

Table 7 shows both the mean percent scores and the readability levels of the pretest and posttest administered to the fourth grade group.

Table 7

Cloze Test Scores and Readability Levels: Grade 4

<table>
<thead>
<tr>
<th>Test</th>
<th>Mean Percent Score</th>
<th>Readability Level</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pretest (3^{1})</td>
<td>38</td>
<td>Frustration</td>
</tr>
<tr>
<td>Posttest (3^{1})</td>
<td>60</td>
<td>Instructional</td>
</tr>
<tr>
<td>(t) value</td>
<td>9.38*</td>
<td></td>
</tr>
<tr>
<td>(t_{crit}^{(11)} = 2.20)</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

\(p < .05\)
A *t* test for related measures indicated that there was a significant difference between the pretest and posttest scores of the fourth grade group, thus rejecting the null hypothesis. It appears that regular instruction with cloze exercises over a 10-week period was effective in encouraging the fourth grade poor readers to pay closer attention to meaning. The large computed *t* value indicates that this improvement is a direct result of the use of cloze with these particular children. This finding also indicates that the children showed improvement in ability to use the syntactic and semantic cues in the passage to formulate acceptable responses for the cloze deletions.

Table 8 shows the mean percent scores and readability levels of the cloze pretest and posttest administered to the fifth grade treatment group.

Table 8

<table>
<thead>
<tr>
<th>Test</th>
<th>Mean Percent Score</th>
<th>Readability Level</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pretest  (4^1)</td>
<td>40</td>
<td>Instructional</td>
</tr>
<tr>
<td>Posttest (4^1)</td>
<td>49</td>
<td>Instructional</td>
</tr>
</tbody>
</table>

*t* value

1.29*

*t* crit(5) = 2.57

*P > .05*
Although the fifth grade group improved from pretest to posttest on the standard cloze test, the increase was not large enough to be significant. By comparing the pretest and posttest grade equivalent scores on the reading comprehension test in Tables 2 and 4, it is noted that the fifth grade treatment group did not show any improvement on that test from pretest to posttest. Thus, it seems that factors other than poor reading comprehension skills are involved for this particular group of children.

The analysis of the data failed to reject the last null hypothesis.

**Summary**

Fourteen null hypotheses were tested at the .05 level of significance. The analysis of the data revealed that instructing poor readers using the cloze technique had no observable effect upon reading achievement grade equivalent scores as measured by the standardized test. In addition, it was determined that the use of cloze seemingly had no observable effect on any of the sub-skills measured by this test.

A significant difference was noted between the pretest and posttest scores of the fourth grade treatment group on a standard cloze test. This indicated that
these children did improve in ability to comprehend cloze material at their instructional reading level. While the fifth grade group increased in ability to comprehend cloze material, this increase was too small for significance.

The analysis of the data failed to reject 13 of the 14 null hypotheses for the treatment groups.
Chapter V

Conclusions and Implications

Purpose

The primary purpose of this study was to investigate the effectiveness of the cloze procedure when used as a teaching technique specifically for instructing poor readers in the use of contextual cues. Subskills of reading comprehension which appeared to be affected by the use of cloze were identified. A secondary purpose was to determine whether poor readers would increase in ability to comprehend cloze material at their instructional level.

Conclusions

The results of this study lead to the following conclusions:

1. Training with cloze exercises apparently encouraged the students in the treatment groups to pay closer attention to meaning. This resulted in increased ability to respond with acceptable replacements for deleted words in cloze passages at their instructional levels.

2. Training with cloze exercises enabled the poor readers in the treatment groups to perform slightly better
than the control groups in use of contextual cues to
determine word meaning and in drawing conclusions to
determine inferential meaning. Although this trend was
non-statistically significant, future research in these
areas appears warranted.

3. Training with narrative cloze exercises did
not appear to be effective in improving the general
reading ability of poor readers as measured by the
standardized test.

After intensive use of the cloze procedure with
poor readers, it is observed that this technique focuses
the reader's attention on contextual cues. The reader
is required to actively utilize the information which
is presented in the passage as well as experiential and
linguistic knowledge to predict acceptable replacements
for the deleted words. This observation corroborates
similar views of Bortnick and Lopardo (1973), Culhane
(1970), Kennedy and Weener (1973), Thomas (1978), and
Weaver (1977).
Limitations

There are several limitations which must be considered when interpreting the results of this study. These limitations are:

1. Non-random selection of students. The objective of the study precluded a random sampling of the student population.

2. Small sample size. The results of this study must be interpreted with caution in light of this limitation and can be generalized only to similar populations.

3. Interference in the reading process by uncontrolled variables (e.g., emotional, attitudinal).

4. Instruction received in the classroom developmental reading program. The children were from eight classrooms and were receiving instruction in various levels of two basal reading programs.

5. Use of the Stanford Achievement Test. The construction of this test limited its effectiveness in identifying the subskills of comprehension which were affected by cloze. The 35-minute time limit for the reading comprehension subtest imposed a further limitation.
Implications for Research

The results of this study indicate that further investigation into the use of the cloze procedure with poor readers is warranted. There are a limited number of studies available in which cloze has been used as an instructional technique. Of these only a few investigated the use of cloze with poor readers. Additional research with larger groups would add valuable information regarding the use of this technique in remedial instructional programs.

The cloze technique is adaptable with readers of all ages and ability levels. Further research is needed into the use of both narrative and expository cloze activities with poor readers in the intermediate grades as well as at other grade levels from primary through high school. In addition, the effects of teaching the use of contextual cues using this procedure could be observed in various content areas of the regular classroom instructional program at these levels.

Research has indicated that cloze tests measure specific comprehension subskills (Bormuth, 1969) and that cloze activities require the reader to draw upon subskills similar to those applied to the multiple-choice format of other reading tests (Smith & Zinc, 1977).
If this is the case, then it follows that practice with cloze exercises should improve the ability of poor readers in these subskill areas. An untimed test which measures an adequate number of items in each subskill area (e.g., a criterion-based test) may identify those subskills which may be improved by the use of cloze.

Another area in which further investigation would yield valuable information is the scoring of cloze tests. Perhaps guidelines can be developed to permit the establishment of reference points for a scoring system which would allow responses that are syntactically and semantically acceptable within the context of the selection. Scoring these responses as correct may provide a more accurate indication of a student's comprehension ability than scoring only exact word replacements as correct. Future research in this area may determine what the various types of scoring systems reveal about students' reading comprehension.

Investigations in these areas may provide further insight into the underlying cognitive processes which are involved in the cloze task as well as the transfer of skills developed through the use of cloze, and may indicate ways in which these processes and skills can be most effectively applied to other reading situations.
Implications for Classroom Practice

The cloze technique when used on a regular basis over an extended period of time appears to be an effective method for helping poor readers (comprehenders) focus their attention on meaning.

Cloze exercises may provide the classroom teacher with alternate materials for practice in comprehension. An examination of the types of practice items that are typically presented in reading workbooks and other materials which are frequently assigned reveals that a large part of these items are of the literal type. In addition, the majority of exercises in supplemental reading materials are of the multiple-choice type. Thus, it appears that for students in the intermediate grades who are poor readers, a pattern of inattention to meaning within, between, and among sentences is fostered by or reinforced by the types of exercises which they often are assigned. The cloze technique appears to give these students necessary practice in integrating information found in syntactic units larger than single words to derive meaning.

Cloze tests can be used to diagnose specific areas of deficiency in poor readers. An analysis of responses would indicate strengths and weaknesses in the following
areas: literal comprehension, use of pronouns, sequence of events, implied and inferred comprehension, relationships, vocabulary development, ability to draw upon prior experiential knowledge, and knowledge of language structures. Cloze exercises could then be prepared to give practice in needed areas.

It is suggested that practice exercises include both expository and narrative materials. In addition, once the technique has been learned, the students should read the passage silently and complete it independently. A response should be made for each deletion even if it has to be a guess. In this way, each student must actively search for contextual cues and give thought to his responses without being able to rely on others for suggestions.

The teacher should lead a follow-up discussion of the passage including the concepts presented in the exercise, vocabulary, the need for prior experiential knowledge, and any unusual language structures found in the passage. The students should discuss their responses and give their reasons for those responses. This follow-up activity is a critical part of the cloze procedure when it is used for instructional purposes.
The cloze procedure is a versatile tool which can be adapted to various classroom situations. It provides an alternative to traditional comprehension activities. Most importantly, the use of this technique actively involves the student in reading for meaning.

**Summary**

It was concluded that use of the cloze procedure enabled these poor readers to more effectively utilize the syntactic and semantic cues which were available when they responded to cloze deletions. However, the use of cloze did not appear to improve general reading ability as measured by the Stanford Achievement Test.

Suggestions for research included continued investigation of the use of cloze as a remedial technique, further study of the effects of teaching the use of contextual cues with this procedure upon specific subskills of comprehension, and investigation into various methods of scoring cloze tests.

The results imply that cloze may be valuable in classroom situations as a supplement to traditional comprehension activities.
Reference Note

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Goodman, K. The 13th easy way to make learning to read difficult: A reaction to Gleitman and Rozin. Reading Research Quarterly, 1973, 8, 484-493.


Gunn, V. P., & Elkins, J. Diagnosing and improving silent reading using "cloze" techniques or so what! Brisbane, Australia: Queensland University, 1976. (ERIC Document Reproduction Service No. ED 102 517)


Kennedy, D. The cloze procedure: Use it to develop comprehension skills. *Instructor*, November 1974, 82-86.


Ramananuskas, S. The responsiveness of cloze readability measures to linguistic variables operating over segments of text longer than a sentence. *Reading Research Quarterly*, 1972, 8, 72-91.


The University of the State of New York. *Comprehension through active processing: A set of interactive instructional models*. Albany: Bureau of Reading Education.


Appendix A

Cloze Test Passage Readabilities

and Textbook Publishers
### Cloze Test Passage Readabilities

<table>
<thead>
<tr>
<th>Book</th>
<th>Pages</th>
<th>Readability</th>
<th>Converted Grade Level</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Passports</strong>: Level J (Houghton Mifflin, 1976)</td>
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</tr>
<tr>
<td>74-75</td>
<td>2.2</td>
<td></td>
<td>2&lt;sup&gt;1&lt;/sup&gt;</td>
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<tr>
<td>175-176</td>
<td>2.6</td>
<td></td>
<td>2&lt;sup&gt;2&lt;/sup&gt;</td>
</tr>
<tr>
<td>301-302</td>
<td>2.6</td>
<td></td>
<td>2&lt;sup&gt;2&lt;/sup&gt;</td>
</tr>
<tr>
<td>227-228</td>
<td>2.8</td>
<td></td>
<td>2&lt;sup&gt;2&lt;/sup&gt;</td>
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<td>35-36*</td>
<td>3.1</td>
<td></td>
<td>3&lt;sup&gt;1&lt;/sup&gt;</td>
</tr>
<tr>
<td><strong>Taking Off</strong>: Level I (Lippincott, 1978)</td>
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<td>361-362</td>
<td>2.5</td>
<td></td>
<td>2&lt;sup&gt;2&lt;/sup&gt;</td>
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<td>77-79*</td>
<td>3.1</td>
<td></td>
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<td>5.10</td>
<td></td>
<td>5&lt;sup&gt;1&lt;/sup&gt;</td>
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<td><strong>Medley</strong>: Level K (Houghton Mifflin, 1976)</td>
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<tr>
<td>50-51</td>
<td>4.57</td>
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<td>4.61</td>
<td></td>
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<td>122-123*</td>
<td>4.63</td>
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<tr>
<td><strong>Keystone</strong>: Level L (Houghton Mifflin, 1976)</td>
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<td>532-533</td>
<td>4.60</td>
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<td>5&lt;sup&gt;2&lt;/sup&gt;</td>
</tr>
</tbody>
</table>

*Selected for Cloze Tests*
Textbook Publishers


Appendix B

Sample Multiple-Choice Cloze Exercise
Malinda ran happily back to her bench in the park and down some news.

"Clarinda Smith and Robby Holcomb a hornets' nest down by the last week," she wrote. "The were not glad to them. They got eight times."

She nibbled her and looked down at the far below. Nearly everybody in Riverdale down on the river bank.

16. favorite 21. see
2. grim 2. bet
3. hopeful 3. confuse
4. cocky 4. lend
5. screechy 5. thumb

17. burdened 22. jingled
2. frisked 2. hardened
3. varnished 3. tempted
4. wrote 4. stung
5. oiled 5. mowed

18. presented 23. pencil
2. carved 2. engine
3. chewed 3. captive
4. found 4. chimney
5. protected 5. group

19. snake 24. mane
2. river 2. river
3. freight 3. worm
4. latch 4. robber
5. salmon 5. wedding

20. carpets 25. tossed
2. hornets 2. leaked
3. reports 3. lived
4. spires 4. blossomed
5. rigs 5. swung

Appendix C

Books Used for Cloze Exercises
<table>
<thead>
<tr>
<th>Author</th>
<th>Title</th>
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<tbody>
<tr>
<td>Aesop</td>
<td>Aesop's Fables</td>
</tr>
<tr>
<td>Association for Childhood Education International</td>
<td>Told Under the Green Umbrella</td>
</tr>
<tr>
<td>Baum, L. Frank</td>
<td>The Wonderful Wizard of Oz</td>
</tr>
<tr>
<td>Brooks, Walter</td>
<td>Freddy the Detective</td>
</tr>
<tr>
<td>Carroll, Lewis</td>
<td>Alice's Adventures in Wonderland and Through the Looking-Glass</td>
</tr>
<tr>
<td>Cleary, Beverly</td>
<td>Henry Huggins</td>
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<tr>
<td>Cleary, Beverly</td>
<td>Henry and the Paper Route</td>
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<tr>
<td>Collodi, Carlo</td>
<td>The Adventures of Pinocchio</td>
</tr>
<tr>
<td>Dahl, Roald</td>
<td>Charlie and the Chocolate Factory</td>
</tr>
<tr>
<td>Enright, Elizabeth</td>
<td>The Saturdays</td>
</tr>
<tr>
<td>Estes, Eleanor</td>
<td>The Moffats</td>
</tr>
<tr>
<td>Flack, Marjorie</td>
<td>Walter the Lazy Mouse</td>
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<tr>
<td>Gruenberg, S. (Ed.)</td>
<td>Favorite Stories Old and New</td>
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<tr>
<td>Haywood, Carolyn</td>
<td>Eddie and the Fire Engine</td>
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<tr>
<td>Henry, Marguerite</td>
<td>Misty of Chincoteague</td>
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<tr>
<td>Julian, Nancy R.</td>
<td>The Peculiar Miss Pickett</td>
</tr>
<tr>
<td>McCloskey, Robert</td>
<td>Homer Price</td>
</tr>
<tr>
<td>O'Dell, Scott</td>
<td>Island of the Blue Dolphins</td>
</tr>
<tr>
<td>Taylor, Sydney</td>
<td>All-of-a-Kind-Family</td>
</tr>
<tr>
<td>Wilder, Laura Ingalls</td>
<td>Little House on the Prairie</td>
</tr>
<tr>
<td>Wilder, Laura Ingalls</td>
<td>The Long Winter</td>
</tr>
</tbody>
</table>
Appendix D

Sample Cloze Exercises
Cloze Exercise - Grade 4

The shopkeeper put Charlie's change on the counter. "Take it easy," he said. "It'll _______ you a stomach ache if you _______ it like that without chewing."

_________ went on wolfing the candy. He _______ stop. And in less than half _______ minute, the whole thing had disappeared _______.

his throat. He was quite out _______ breath, but he felt marvelously, extraordinarily _______.

He reached out a hand to _______ the change. Then he paused. His _______ were just above the level of _______ counter. They were staring at the _______ silver coins lying there. The coins _______ all dimes. There were nine of _______ altogether. Surely it wouldn't matter if he spent just one more.

What do you think will happen next?_________

_________

What two clues tell you that Charlie was eating the candy very fast?_________

_________

Cloze Exercise - Grade 4

As Carol and Bobby followed Miss Pickett up the stairs, they noticed she was carrying the shoe box very tenderly. For the first time __________ saw that the small __________ was tied with heavy __________ and knotted again and __________.

Miss Pickett placed the __________ box on the chair __________ the cot and began __________ untie the string. There __________ too many knots.

The __________ old lady grew impatient.

__________ she took off her __________ black-rimmed glasses and __________ straight and hard at __________ knotted string. Quick as a wink all the knots untied themselves, and the string flew off the box!

Who do you think Miss Pickett is? __________

__________________________________________________________________________

What makes you think so?__ _________________________________________________________________________________________

__________________________________________________________________________

What does "quick as a wink" mean? _________________________________________________________________________________________

__________________________________________________________________________

This was my first good fortune. The next was when a swarm __________ dolphins appeared. They came swimming out __________ the west, but as they saw __________ canoe they turned around in a __________ circle and began to follow me. __________ swam up slowly and so close __________ I could see their eyes, which __________ large and the color of the __________. Then they swam on ahead of __________ canoe, crossing back and forth in __________ of it, diving in and out, __________ if they were weaving a piece __________ cloth with their broad snouts.

Dolphins __________ animals of good omen. It made me happy to have them swimming around the canoe.

What is this story mainly about? _________________

What does "good omen" mean? _________________

Underline four things the dolphins did after they saw the canoe.

Cloze Exercise - Grade 5

"What makes you a coward?" asked Dorothy, looking at the great beast in wonder, for he was as big as a small horse.

"It's a mystery," replied ___________ Lion. "I suppose I ___________ born that way. All ___________ other animals in the ___________ naturally expect me to ___________ brave, for the Lion ___________ everywhere thought to be ___________ King of Beasts. I ___________ that if I roared ___________ loudly every living thing ___________ frightened and got out ___________ my way. Whenever I've ___________ a man I've been ___________ scared; but I just ___________ at him, and he ___________ always run away as ___________ as he could go. If the elephants and the tigers and the bears had ever tried to fight me, I should have run away myself--I'm such a coward.

What is this story mainly about?__________________________

__________________________

Why hadn't the Lion's secret been discovered before this?

__________________________

Cloze Exercise - Grade 5

Alice had plenty of time as she went down to look about her and to wonder what was going to happen next. First, she tried to ________ down and make out ________ she was coming to, ________ it was too dark ________ see anything. Then she ________ at the sides of ________ well, and noticed that ________ were filled with cupboards ________ bookshelves. Here and ________ she saw maps and ________ hung upon pegs. She ________ down a jar from ________ of the shelves as ________ passed. It was labeled "ORANGE MARMALADE" but to her great disappointment, it was empty.

Circle the two words that tell you that Alice looked down the well before she looked at the sides.

Check the best title for this story:

_____ Alice Eats Jam
_____ Cupboards in the Well
_____ Down the Deep Well
_____ Maps on the Wall
_____ Alice is Disappointed

Appendix E

Cloze Tests
As Betsy and the mayor entered the room, the council members went back to their seats. Betsy almost changed her __________ when she saw all __________ strange grown-up faces staring __________ her from around the __________ council room table. The __________ members looked like the __________ of people who would __________ "No" to almost anything.

__________ mayor sat down in __________ chair at the head __________ the table and told __________ to stand beside him. __________ rapped on the table __________ silence.

"I'd like to __________ a change in the __________ of business," he said. "__________ want to introduce a __________ determined young lady to __________. Her name is Betsy --

__________ -- Betsy, what's your last __________?"

"Delaney."

"Her name is __________ Delaney, and she has __________ problem for you."
To called "determined" made Betsy a little braver. She not to think of those grown-up eyes looking her. She tried to instead of the cat's eyes.

Once she started, it was not as as she had thought would be to explain the petition and the cat the children had feeding. When she had and had passed the for all of them examine, the mayor motioned her to lean closer him.

He whispered in ear, "This isn't a, Betsy, but if I you, I'd go home catch that cat and her up before she having kittens all over place."

Betsy grinned. "Oh, sir!" she said.

As turned to leave, she the mayor very distinctly wink at her. She winked back.
Mark lost sight of his father. It was very peaceful _______ the cool shade of _______ tree, and he began _______ grow sleepy. He yawned _______ looked toward the stream. _______ could see his dad's _______ jacket.

Mark suddenly sat _______ very straight. Across the _______ he saw something half-hidden _______ the bushes. The dark _______ moved against the greenery. _______ heart began to pound. _______ was a bear! A _______ bear!

Thick bushes hid _______ bear from his father's _______. Mark opened his mouth _______ shout. No! He stopped _______. That grizzly was after _______ fish and his father _______ going to come between _______ bear and the fish. _______ mustn't yell.

Mark had _______ warn his father before _______ stepped out onto the _______. He was going to _______ to use everything he _______ about the woods to _______ to the stream. He'd _______ to reach his dad
__________, quietly, and without being ________
by the grizzly.

Mark __________ himself to think calmly.
__________ looked for a way __________ the
tangled bushes, and __________ to choose a path
__________ would keep him hidden __________
the bear.

"I mustn't __________," he said to himself
__________ he crept through the __________.
He stepped soundlessly over __________ branches
and avoided holes __________ the soft ground.
His __________ caught on a limb, __________
it seemed to take __________ to get it loose.
__________ Mark reached the bank __________
knees felt weak, and __________ could hardly catch
his __________.

His father had slid __________ the bank and
was __________ ready to climb over a large, fallen
log. He was still hidden from the bear.

Roppel, P. A real woodsman. In McCracken, G., &
Walcutt, C. C. Taking Off, Book I. Philadelphia:
The cricket had been sitting next to the edge of the shelf. For some reason—perhaps __________ was a faint noise, __________ padded feet tiptoeing across __________ floor—he happened to __________ down. A shadowy form __________ had been crouching silently __________ in the darkness made __________ spring and landed right __________ to Tucker and Chester.

"__________ out!" Chester shouted. "A __________!" He dove headfirst into __________ matchbox.

Chester buried his __________ in the tissue. He __________ want to see his __________ friend, Tucker Mouse, get __________. Back in Connecticut he __________ sometimes watched the one-sided __________ of cats and mice __________ the meadow, and unless __________ mice were near their __________, the fights always ended __________ the same way. But __________ cat had been upon __________ too quickly. Tucker couldn't __________ escaped.
There wasn't a _________. Chester lifted his head ________ very cautiously looked behind ________. The cat—a huge ________ cat with gray-green and ________ stripes along his body—________ sitting on his hind ________, switching his tail around ________ forepaws. And directly between ________ forepaws, in the very ________ of his enemy, sat ________ Mouse. He was watching ________ curiously. The cricket began ________ make frantic signs that ________ mouse should look up ________ see what was looming ________ him.

Very casually Tucker ________ his head. The cat ________ straight down on him.
"_________, him," said Tucker, chucking ________ cat under the chin ________ his right front paw.
"________ my best friend. Come ________ from the matchbox."

Chester ________ out, looking first at ________, then the other.
"Chester, ________ Harry Cat," said Tucker.
"Harry, this is Chester."

One evening Pony disappeared into the night as soon as the dishes were done. The moon was coming ________
above the rim of ________ to the east. Off ________ the west there were ________ of clouds in the _________. There had been heavy ________ in those mountains a ________ time ago.

This was ________ night he had decided ________ find out if he ________ the courage to ride ________ Vic. He would have ________ be very careful because ________ Hills had told him ________ to ride the horse. ________ now it had been ________ to obey that rule. ________, however, Pony knew that ________ must try to ride ________ Vic. If he didn't ________ the courage to run ________, then he could settle ________ forever, glad just to ________ the horse's stable hand. ________ the idea would not ________ in Pony that perhaps ________ and the horse were ________ to race together. If ________ were, then he would ________
to have the courage ______ race him. Tonight was ______ to prove to him ________
and for all which ________ should be--jockey or ________ hand.

The desert floor _______ white under the moonlight _______ Pony approached the stables.
_______ he went past the _______ where the ranch hands ________, Pony looked in the _______ and saw Joe Hills ______ at a table with ________ other men. They were ________ cards, and looked as ________ they would be sitting ________ for many hours to ________.

Pony went first to ________ tack room, where he ________ put his riding things. ________
he went to Little ________ stall and saddled up.
He led the horse out and closed the stall door very carefully behind him.