A Comparison Of The Results Of The Informal Reading Inventory With The Teacher Assigned Reading Level, The Cloze Procedure Level And The Rate Of Reading.

Diane Bluestein Brown

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This thesis, directed and approved by the candidate's committee, has been accepted by the Graduate Committee of The University of New Mexico in partial fulfillment of the requirements for the degree of

Master of Arts

A COMPARISON OF THE RESULTS OF THE INFORMAL
Title  READING INVENTORY WITH THE TEACHER
ASSIGNED READING LEVEL, THE CLOZE
PROCEDURE LEVEL AND THE RATE OF
READING

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A COMPARISON OF THE RESULTS OF THE
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AND THE RATE OF READING

BY

DIANE BLUESTEIN BROWN

B.S., University of New Mexico, 1967

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in the Graduate School of
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BY
Diane B. Brown

ABSTRACT OF THESIS
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The informal reading inventory was explored in conjunction with: (1) the teacher assigned reading level, (2) the cloze procedure to evaluate comprehension, and (3) the rate of silent and oral reading. Sixty children in grades two through six were given the informal reading inventory to determine their independent, instructional, and frustration levels. The children were also given written cloze tests on the basis of their school assigned grade level to evaluate their independent, instructional, and frustration levels. During the oral and silent reading selections of the informal reading inventory, the children were timed, and their rate of reading was determined and expressed in "words per minute."

The comparison of the informal tests and the teacher assigned level revealed that sixty-eight per cent of the sixty children in the study were reading at a level that did not correspond to their instructional level as determined by the informal reading inventory. Only thirty-two per cent of the children had a teacher assigned level that exactly matched their instructional level.

There was a correlation of .9399 between the levels on the informal reading inventory and the levels on the cloze procedure. This correlation was significant at the one per cent level for thirty degrees of freedom.
The average difference of the means for each level of the informal reading inventory and the cloze procedure was .441 which was rounded to the nearest grade level (.5).

The children had four reading patterns as the difficulty of the informal reading inventory selections increased. The highest percentage of the children had silent and oral reading rates that were inconsistent as the difficulty of the material increased.

The children in the sample had reading rates at the instructional level of the informal reading inventory that ranged from 63 words per minute to 175 words per minute. The silent reading rates ranged from 70 to 223 words per minute.

The results of the study indicated that the methods used to place children in reading groups are inaccurate because of the high percentage of children who were reading at the incorrect level.

The high positive correlation between the informal reading inventory levels and the cloze levels meant that both tests measured the same comprehension skills. The teacher can shift a cloze level down by one-half grade level and obtain a better approximation to the informal reading inventory levels.

The rates established by the sample showed that children can perform satisfactorily at established minimums.
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CHAPTER I

THE NATURE OF THE PROBLEM

Many teachers have asked, "Is Johnny in the right book and reading group?" To answer this question, teachers talked with children's previous teachers, examined the cumulative records, analyzed the scores on previous tests and reading tests, and used their own judgment. These procedures seemed to be inadequate because Harris indicated "that between 10 and 15 per cent of elementary school children have at least mild reading disabilities. . . ." In view of the percentage of school children who have problems in the area of reading, it was evident that "the regular teacher is the key person who must accept the responsibility for identifying the child who is not making satisfactory progress."2

I. THE PROBLEM

Statement of the problem. The study was designed to determine any child's correct reading level by using the informal reading inventory supplemented by: (1) the cloze procedure to more accurately determine reading comprehension ability, and (2) the rate of silent and oral reading to evaluate a child's reading level. The informal reading inventory, the cloze procedure, and the rate of reading
were easily adapted to the classroom and could be used by any teacher to ascertain the various reading levels of the children in a classroom.

**Importance of the study.** The regular teacher has the responsibility for the accurate evaluation of each child's reading ability, but many teachers are unaware of this responsibility. The present methods used in selecting reading materials and analyzing a child's word recognition and comprehension ability are inadequate because many teachers do not know how to determine a child's reading achievement level. They are unaware of each child's strengths and weaknesses in all facets of reading. To be more specific, the teacher must know the child's understanding of familiar and new words in the lesson, his ability to attack new words; and his ability to comprehend the new material and answer questions about it.

**Purpose of the study.** It was the purpose of this study to compare the results of the informal reading inventory with the following factors: (1) teacher assigned reading level, (2) cloze procedure comprehension score, and (3) the rate of oral and silent reading. The study of the informal reading inventory was designed to answer the following questions:
1. How did the reading level assigned by the classroom teacher compare to the reading level determined by the informal reading inventory?

2. Can the cloze procedure compensate for the limitations of the comprehension questions in the informal reading inventory? The cloze procedure is a written evaluation of silent reading comprehension.

3. How do the rates of silent and oral reading of the sample compare to the rates established by the authorities?

II. DEFINITION OF TERMS USED

*Teacher assigned level.* This was the reading level at which the child received classroom instruction. The teacher had usually placed the child in a group that was reading from a reading book graded at this level.

*Informal Reading Inventory.* This was an examiner-made diagnostic reading test that was based on graded reading selections taken from each book in a graded series of readers. The inventory consisted of several selections for oral and silent reading, and the reading was evaluated in respect to the word recognition and the comprehension abilities demonstrated by the child.

*Reading achievement levels.* The results of the informal reading inventory were expressed in terms of the following levels:

1. Independent reading level. This was the level at which a child displayed all the characteristics of "good reading." The reading at this level was fluent; the child made few word
recognition errors, and he had excellent understanding of the material. The child would do his recreational reading at this level.

2. Instructional reading level. A child would profit from instruction at this level, and he should receive supervision at this level. The reading at this level was fluent, but the child's word recognition and comprehension skills were challenged.

3. Frustration reading level. The child's reading skills deteriorated at this level; the child became confused because the material was too difficult. There were many symptoms of reading difficulty such as sighing, moving lips or pointing with the finger.

**Cloze procedure.** An evaluation of reading comprehension in which the child silently read an incomplete story and wrote missing words in blanks. The story had been "mutilated" by removing certain words and replacing them with blanks of a standard length. The child needed to understand the story to correctly complete the blanks.

**Cloze comprehension levels.** The results of the cloze tests were expressed in terms of these levels:

1. Independent comprehension level. This was the level at which a child correctly completed one-half or more of the blanks or cloze units on a cloze test.

2. Instructional comprehension level. This was the level at which a child correctly completed between forty and fifty per cent of the cloze units or blanks on a cloze test.

3. Frustration comprehension level. This was the level at which the child responded to or answered correctly less than forty per cent of the blanks or cloze units on a cloze test.
Rate of reading. This criteria was determined by timing a child as he read a selection of predetermined length from the informal reading inventory. The criteria was expressed in "words per minute" or the average number of words that a child read in one minute. It referred to the child's oral and silent reading at the independent, instructional, and frustration levels as determined by the informal reading inventory.

III. LIMITATIONS OF THE STUDY

Limitations referable to the selection of the sample. The results of the findings of this investigation were based on a total population limited to sixty children. The sample consisted of thirty-one girls and twenty-nine boys. Twelve children from each grade level, second grade through the sixth grade, were selected from seven classrooms by the seven teachers. The children represented various racial groups, but the great majority of the children were Anglo-American. The children ranged in ability from the "high reading group" to the "low reading group."

The cloze levels of the twelve second graders were excluded because the cloze test was too difficult for the children. The cloze levels and informal reading inventory levels of the twelve second graders and sixteen other children were omitted from the correlation because their
independent and instructional cloze levels were not determined. The rates of reading were excluded for three children because their instructional level was not determined by the informal reading inventory.

The school from which the sample was taken had a total population of five hundred and ninety children. There was a very high rate of student mobility at the school.

Limitations referable to testing instruments. The informal reading inventory and the cloze tests were designed for the study. The reliability and validity of the informal tests were not examined because the tests were "informal"—not standardized. The informal reading inventory was not complete for the entire sample because six children had reading levels that were below or above the testing instrument. The informal reading inventory began at the primer level and concluded at the eighth reader level. The results from the cloze procedure tests were also limited in that the administration of the cloze tests was determined by a child's grade level rather than his reading level.

Limitations referable to the skills measured. The study involved an analysis of the reading skills of the children in the sample. On the cloze test, the reading comprehension skills were evaluated by a written response as opposed to the oral response required on the informal
reading inventory. These skills were also influenced by individual testing as opposed to group testing, unfamiliar materials, and an unknown examiner.

IV. SUMMARY OF THE PROBLEM

The purpose of this study was to compare the results of the informal reading inventory with the teacher assigned level, the cloze procedure comprehension levels, and the rate of silent and oral reading. The percentage of school children who have reading problems emphasized the need for this study. All of the techniques presented in this study could be used effectively by every teacher with very little time and material involved.
FOOTNOTES


Many teachers believe they can accurately define a child's reading ability and capacity by the use of standardized reading tests. However, Eiden noted that "teachers have found that . . . [such] tests yield reading scores which might represent a grade placement one or two years higher than that at which children can read with understanding."1

Van de Sande and Eiden found that "grade placement scores on reading tests for primary grades often have little relationship to the child's actual instructional reading level."2 The studies also
CHAPTER II

REVIEW OF RELATED LITERATURE

The research on the informal reading inventory, cloze procedure, and reading rate is abundant; and there are numerous articles about the results of studies in these areas. The literature discussed in this chapter is a brief summary of the research related to the study. Related literature on the informal reading inventory, the differences in functioning levels, cloze procedure, and reading rates for silent and oral reading is presented in this chapter.

I. DIFFERENCES IN FUNCTIONING LEVEL

Many teachers believe that they can accurately define a child's reading ability and capacity by the use of standardized reading tests. However, Sheldon noted that "teachers have found that . . . (such) tests yield reading scores which might represent a grade placement one or two years higher than that on which children can read with understanding."¹

**Use of standardized tests.** Wheeler and Smith found that "... grade placement scores on reading tests for primary grades often have little relationship to the child's actual instructional reading level."² The studies also
revealed that some primary grade reading tests tend to over-estimate a child's reading level by one or more grade levels. Teachers are faced with several alternatives in view of these evaluations. The teacher could "... teach to offset the over-estimation of standardized primary reading tests." This procedure could not be used with complete confidence. The "... pitfalls overlooked by researchers in assessing reading instruction" include:

(1) the assumption that the tests provide reliable and valid measures of the most important aspects of reading,
(2) the use of tests over too wide a span of education level, and
(3) the use of inappropriate norms.

The limitations of standardized tests are summarized as follows:

The users of most standardized tests of reading achievement undoubtedly hope to secure a fairly valid and reliable index to reading achievement. What they actually get is a score that indicates the performance of one individual in relationship to other children at an equivalent age or grade level. ...

The standardized test, timed, is a power test, and may more nearly measure a child's frustration level of reading over a short period of time.

**Range of abilities in the classroom.** Wolfe suggested the following factors about the range of abilities in the classroom; first, the higher the grade level, the wider the range of differences within a class; and good teaching involves learning situations that increase the range of
individual differences existing in a classroom. This range of reading abilities was illustrated by a fifth grade class in which the reading ability for the class spanned the range from 3.3 to 10.7.

Comparison of teacher placement to inventory placement. Gipe studied a class of thirty-one fifth grade children and found that fourteen or forty-five per cent of the children were reading at their frustration level; and ten were reading in a book that was below their instructional level. Only seven children were reading at the correct instructional level. When the entire class was considered, it was found that 77% of the children were inaccurately placed in their present reading book. Gipe reduced the forty-five per cent of children reading at their frustration level and suggested that 25% to 30% of the children in any class may be reading at the frustration level.

II. THE INFORMAL READING INVENTORY

Description of the informal reading inventory. The informal reading inventory is a practical tool in that it

... provides a valid basis for determining the suitability of any material for use with a given individual or relatively homogeneous group of pupils for reading instruction. ... it is extremely helpful in identifying the symptoms and the difficulties of reading for a given individual and their possible causes by determining the pupil's skills or lack of them in comprehension, interpretation, or word recognition.
By appraising the individual's level of competence on a particular job; the informal reading inventory helps to answer the question, "Can he profit from instruction in this material?" After answering this question, lessons can be planned with an understanding of each child's limitations and strengths. "As teachers gain precision in evaluating the reading status of children, instruction will tend to become more specific; and instructional groups limited in size." This evaluation also leads to reintroduction and reemphasis of previously learned material.

Powell summarized the informal reading inventory in the following manner, "The informal reading inventory is a practical technique for the observation of an individual's oral and silent reading achievement."

Construction of the informal reading inventory. In the initial step, "... the teacher needs a series of graded textbooks in reading." The series used may or may not be known to the child; this depends on the purpose for the testing. "If the teacher's purpose is to determine if a child is ready for the next book in the series, then the same series would be used." If the teacher wanted "... a general idea of the level on which the child should be instructed, a series unknown to the pupil may be used." "Two selections of 100 to 150 words in length can be
selected from each reader . . . "18 Powell was more specific
and suggested that the selections range ". . . from about
50 to 125 words in length . . . for the preprimer through
grade two book, and about 125 to 175 words for books three
through eight."19 In choosing the selections, it is best
to take them from the first quarter or third of the book,
but not from a section that is written as a review of the
previous book.20 It must also be remembered that the teacher
must tell the child about the parts in the story that the
child has not read prior to the inventory selection; therefore,
the selection might start at the beginning and continue
from there for the silent selection.21

When choosing the selection, it is also important to
consider the comprehension questions that can be derived
from the story. The factors that influence comprehension
include vocabulary, sentence structure, idea density, and
human interest.22 The vocabulary includes the percentage
of uncommon and different words, and the sentence structure
is measured either by sentence length or the percentage of
simple sentences.23 The idea density is estimated by the
relative number of prepositional phrases.24

Betts recommended the use of single-answer questions
for checking comprehension.25 He also recommended " . . .
questions that must be answered from the reading matter
rather than from experience."26 The questions should also
have only one answer and be stated so that a parroting of the exact wording is not necessary.27 Four to six questions for each selection from the first and second grade books, and five to eight questions for books from the third grade level to the end of the series must be designed.28 The questions should include these four different parts; first, factual questions; secondly, inferential questions; third, vocabulary questions; and lastly, questions which appraise the child's ability to use context clues.29

The selections and the questions are duplicated so the examiner has a copy to use in recording the errors, noting difficulties, and determining results.

Conducting the informal reading inventory. The first step is the establishment of rapport. "Proper rapport between the examiner and the pupil is highly important."30 An explanation of the purpose of the testing helps to establish rapport.31

When the child is ready, the examiner offers a motivational question or statement to interest the child, but it should not reveal the answer to a comprehension question.32

Betts and Aaron feel that silent reading should precede oral reading because many reading specialists caution against oral reading before silent reading.33
Powell recommends oral reading before silent reading. "As soon as the child has finished reading the oral selection, have him close the book and ask him the questions on the comprehension check." Gilmore scored the comprehension questions as follows, in the space before each question, place a plus (+) if the pupil answers the question correctly; and a minus (-) if he answers it incorrectly. After answering the questions on the oral selection, the child reads the silent selection and answers the comprehension questions about the silent reading selection. "Following the reading of the silent selection, proceed to the next book and continue in the same manner until the child reaches a level which is confusing and frustrating to him." In this manner, the child reads from several graded reading books until the examiner has established the child's independent, instructional, and frustration levels on the informal reading inventory.

The probable capacity reading level is revealed by the most advanced level in the basal series in which a pupil is able to comprehend as much as seventy-five percent of the material when it is read aloud by the examiner. One important consideration during the informal reading inventory is to closely observe what happens when the teacher has the child "try the book on for size." The teacher should observe if the child moves his lips,
holds the book too close, points with his finger, or displays other symptoms of reading difficulty.

Interpreting the informal reading inventory. There are several suggested ways to interpret the results of the informal reading inventory, but Betts is the established authority. The interpretation of the informal reading inventory is based on the child's word recognition and comprehension abilities. The word recognition score is determined by the percentage of words that the child correctly identifies during oral reading. The comprehension score is the percentage of correctly answered questions based on the oral and silent reading selections. The following is a summary for interpreting the informal reading inventory suggested by Gipe. 40

TABLE 1

INTERPRETATION OF THE INFORMAL READING INVENTORY ACHIEVEMENT LEVELS GIVEN BY GIPE

<table>
<thead>
<tr>
<th>Informal Reading Inventory Level Assigned to a Child's Reading Performance</th>
<th>Percentage of Words Correctly Read During Oral Reading</th>
<th>Percentage of Questions Correctly Answered After Silent and Oral Reading</th>
</tr>
</thead>
<tbody>
<tr>
<td>Independent</td>
<td>97%-100%</td>
<td>75%-100%</td>
</tr>
<tr>
<td>Instructional</td>
<td>93%-96%</td>
<td>60%-74%</td>
</tr>
<tr>
<td>Frustration</td>
<td>80%-92%</td>
<td>0-59%</td>
</tr>
<tr>
<td>Capacity (Listening)</td>
<td></td>
<td>75%-100%</td>
</tr>
</tbody>
</table>
The acceptable levels suggested by Zintz are more exacting than those suggested by Gipe. The following table given by Zintz insures that a child will not be reading at a level that is too difficult for him. 41

### TABLE 2

**INTERPRETATION OF THE INFORMAL READING INVENTORY ACHIEVEMENT LEVELS GIVEN BY ZINTZ**

<table>
<thead>
<tr>
<th>Informal Reading Inventory Level Assigned to a Child's Reading Performance</th>
<th>Percentage of Words Correctly Read During Oral Reading</th>
<th>Percentage of Questions Correctly Answered After Silent and Oral Reading</th>
</tr>
</thead>
<tbody>
<tr>
<td>Independent</td>
<td>99%-100%</td>
<td>90%-100%</td>
</tr>
<tr>
<td>Instructional</td>
<td>95%+</td>
<td>75%+</td>
</tr>
<tr>
<td>Frustration</td>
<td>Below 95%</td>
<td>Below 70%</td>
</tr>
<tr>
<td>Capacity (Listening)</td>
<td></td>
<td>75%+</td>
</tr>
</tbody>
</table>

Another revision of reading achievement levels was suggested by McCracken in "Standards for Evaluating Achievement on an Informal Reading Inventory." 42 The skills described include "pronouncing in context" or oral reading of a story; "comprehension and defining vocabulary in context" or determining a child's understanding of the material; and "speed" or the rate of reading at the various informal reading inventory levels. This revision of the standards was more flexible in that the instructional level included the "questionable" and "definite" areas.
<table>
<thead>
<tr>
<th>Skill</th>
<th>Frustration Level</th>
<th>Instructional Level (Questionable)</th>
<th>Instructional Level (Definite)</th>
<th>Independent Level</th>
</tr>
</thead>
<tbody>
<tr>
<td>vocabulary (pronouncing in context)*</td>
<td>94% or less</td>
<td>95% to 96%</td>
<td>97% to 98%</td>
<td>99% to 100%</td>
</tr>
<tr>
<td>comprehension and defining vocabulary in context</td>
<td>50% or less</td>
<td>51% to 69%</td>
<td>70% to 89%</td>
<td>90% to 100%</td>
</tr>
<tr>
<td>speed</td>
<td>Silent reading</td>
<td>Any speed less than the listed</td>
<td>Speed exceeds suggested</td>
<td>Speed exceeds</td>
</tr>
<tr>
<td></td>
<td>speed definitely</td>
<td>minimums or when oral and silent</td>
<td>minimums and silent speed</td>
<td>suggested minimums</td>
</tr>
<tr>
<td></td>
<td>slower than oral</td>
<td>reading speeds are about the same</td>
<td>exceeds oral speed by 15 or</td>
<td>and silent speed</td>
</tr>
<tr>
<td></td>
<td>(15 or more words</td>
<td></td>
<td>more words per minute</td>
<td>is double oral</td>
</tr>
<tr>
<td></td>
<td>per minute)</td>
<td></td>
<td></td>
<td>speed</td>
</tr>
</tbody>
</table>

* Percentage of words known when reading a paragraph or story. Unknown words are generally those which the examiner has to pronounce for the child.
Assigning the informal reading inventory level. The levels of reading achievement involve more than the percentage of correct words during oral reading and the correct number of comprehension answers; for example, at the independent reading level the "oral reading must be in a natural, conversational tone, rhythmical and well phrased." The instructional level is reached when the child uses "... a conversational tone without noticeable tension, with satisfactory rhythm, and with suitable phrasing." The child also "makes proper use of word recognition clues and techniques." The child has reached the frustration reading level when "... oral reading is without rhythm or phrasing and in an unnatural voice." At this level the child makes many errors and may not even attempt to pronounce words; he is having a difficult time doing the reading, and he is very tense.

Evaluating the informal reading inventory. In the final evaluation of where to place the child for reading, the following suggestions by McCracken are useful.

1. To rate a child's reading as independent, every test score must rate as independent level.
2. If one test score rates as frustration, the child's reading is rated as frustration regardless of the quality of the other scores.
3. If one-half or more of the scores fall under the questionable half of instructional level, the performance is rated as frustrational level.
4. If a child makes a better score when reading from a higher book level, the higher score is accepted
as valid and the lower score is disregarded.

There are many factors in evaluating the results, and the child must be continually re-evaluated and observed to determine if he is reading at the correct level. 49

Validity and reliability of the informal reading inventory. The validity and reliability of the informal reading inventory are important factors in evaluating the results. As most teachers know, books for the same level vary in difficulty. 50 The series differ, and it is possible that a child will perform better in a series in which he has read and received instruction. 51 Two main differences in the series are names of the characters and the vocabulary; these factors effect the style of the writer to a certain extent. 52 There is also a difference in the readability, the number of new words introduced per page, and the methodology; therefore, the child should be taught in the series used to evaluate him or retest him in the series to be used for instruction. 53 The main criteria in reliability is the professional competency of the examiner. 54 The reliability is increased or decreased by the experience of the observer, the number of observations made, the degree to which the sample of observations is unbiased, and the relevance of the information to the understanding of the case. 55
Another factor is the length of the selection. A longer selection gives a more accurate evaluation, but an element of fatigue influences the results, especially when testing younger children. The rapport established with the pupil influences the results in that the child may make mistakes due to his fear of the testing situation. The objectivity in administration is also important in that marked deviations in selecting the materials, administering the test, recording errors, and interpreting the results may completely alter the inventory.

Limitations and advantages of the informal reading inventory. The value of the informal reading inventory is limited by the ability of the examiner and the thoroughness with which the reading abilities, skills, attitudes, and other kinds of information are measured. Another limitation is the design of the inventory.

In using the informal reading inventory, in which comprehension is checked by rather simple questions of details, it is interesting to discover how many questions children answer correctly without fully understanding the material. The comprehension question must reveal the child's understanding, not his recall; and the oral reading must be carefully recorded and interpreted.

The advantages of the informal reading inventory include these factors: (1) low cost, (2) direct and rapid
administration, (3) validity in terms of textbook reading, (4) possibility of group or individual use, (5) learner's awareness of literacy, (6) awareness of progress, (7) appraisal of achievement level and specific needs, (8) selection of interesting materials, (9) attention to graded readability of materials, and (10) instructional value of the test situation. These advantages are increased or decreased by the way the individual teacher uses the informal reading inventory.

III. CLOZE PROCEDURE

Definitions. The term "cloze" comes from "clozure" which is a term that gestalt psychologists apply to the human tendency to complete a familiar but not-quite-finished pattern. A "cloze unit" is

Any single occurrence of a successful attempt to reproduce accurately a part deleted from a 'message' (any language product) by deciding, from the context that remains, what the missing part should be.

The cloze unit is used in the cloze procedure which is

A method of intercepting a message from a 'transmitter' (writer or speaker), mutilating its language patterns by deleting parts, and so administering it to 'receivers' (readers or listeners) that their attempts to make the patterns whole again potentially yield a considerable number of cloze units.

The subject's score in the cloze procedure is "... one index of his ability to read with comprehension."
Construction of the cloze test. The cloze test is constructed by taking a passage of approximately 250 words and mutilating it in the following ways. First, structural deletions in which every "nth" word in a passage is deleted; this type of deletion correlates "... significantly more highly with the vocabulary and reading comprehension section of the Diagnostic Reading Test." 65 The second type of deletions are lexical in which every "nth" noun or main verb (rarely adjective) is deleted; the results from this correlate significantly with the story comprehension section of the Diagnostic Reading Test. 66 Weaver and Kingston used a factor analysis of the cloze procedure and other measures to determine that structural deletions involving context correlate significantly higher with a child's vocabulary and reading comprehension. Lexical deletions involving the meanings of words show a higher correlation with the child's comprehension of an entire story. The use of lexical or structural deletions is controlled by the type of results that are desired on the cloze test.

Administering the cloze test. The cloze test is always administered in a written form. Each mutilated passage is reproduced and a blank of some standard length is placed where the missing words were omitted. 67 The papers are given to the subjects, and they are asked to read them and
write in the missing words. There are two methods of scoring the cloze tests.

It is possible to score cloze tests by a strictly objective procedure in which credit is given only if the exact word is replaced in the blank space. A more subjective procedure can also be used in which credit is given for synonyms. The subjective scoring technique is much more laborious.

The synonym count scoring method consists of the following:

1. The response must complete the original idea or thought expressed in the context of the sentences.
2. The response must fit the original syntactic pattern of language structure.
3. The response must be grammatically correct in terms of number agreement.
4. The response to a deleted cloze test item which was a hard word, defined as a word not found on the Dale List of 3,000 words, must be a hard word.

A comparison of the two scoring methods revealed that "although synonym scoring produced higher total scores, the degree of differentiation among passages was almost identical." The cloze procedure is based on the assumption that . . . the more readable a piece of writing is, the better understood it will be even if some words are left out; and the better the writing is understood the more likely it is that a reader can guess what words are missing.

Validity and reliability of the cloze test. Schneyer found that "cloze tests have adequate validity for evaluating reading comprehension for most general uses." Findings by Rankin suggested that deleting only nouns and verbs from a reading passage are primarily a measure of factual
comprehension and cloze tests constructed by deleting all types of words indiscriminately resulted in a better measure of the comprehension of relationships. Wilson Taylor, the man who developed the cloze procedure, found that

\[\ldots\ \text{an individual's cloze performance appears to depend heavily on how well he understands the meaning of the material administered---hence on the factors which affect comprehension, such as general language facility, specific knowledge and vocabulary relevant to the materials at hand, native ability to learn, attention, motivation and so on.}\]

A further use of cloze was evaluated by Bormuth. He found that cloze tests were valid, reliable, and flexible measures of the comprehension difficulties of the passage from which they were made.

Hafner inferred that poor readers in his sample work more slowly, apparently do not take advantage of the structure as they might, and store and retain information less well.

There are several problems involved in cloze because "\ldots\ words differ greatly in difficulty when they appear as cloze test items and \ldots\ the difficulty of a form will almost always vary to some extent from the difficulty of the passage from which it was made \ldots\."  

The importance of the cloze procedure is seen in the statement that "this method of test construction eliminates the language difficulty in the traditional comprehension
multiple-choice question and the type of question asked."  

IV. RATE OF READING

The rate at which a child reads is a good reflection of the child's reading ability. A child who has a great deal of trouble with hesitations, repetitions, corrections, and mispronunciations will exhibit a slower rate than the child who makes few errors on a selection. McCracken has suggested minimums in words per minute that help the teacher estimate how many words per minute the child should be reading in the various graded test selections. The rates do not suggest that a child who has a certain speed should be in the book level for that speed. The rates suggested by McCracken are summarized in the following table.

<table>
<thead>
<tr>
<th>Book Level</th>
<th>Oral</th>
<th>Silent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Primer-1^2</td>
<td>60</td>
<td>60</td>
</tr>
<tr>
<td>2^1 and 2^2</td>
<td>70</td>
<td>70</td>
</tr>
<tr>
<td>3^1 and 3^2</td>
<td>90</td>
<td>120</td>
</tr>
<tr>
<td>4</td>
<td>120</td>
<td>150</td>
</tr>
<tr>
<td>5</td>
<td>120</td>
<td>170</td>
</tr>
<tr>
<td>6</td>
<td>150</td>
<td>245</td>
</tr>
</tbody>
</table>

-26-
Harris discussed rate with comprehension for silent reading. His table of rates is summarized as follows:

<table>
<thead>
<tr>
<th>Grade</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>6</th>
<th>7</th>
<th>8</th>
</tr>
</thead>
<tbody>
<tr>
<td>Words per Minute</td>
<td>80</td>
<td>115</td>
<td>138</td>
<td>158</td>
<td>173</td>
<td>185</td>
<td>195</td>
<td>204</td>
</tr>
</tbody>
</table>

The rates given by Harris differ from those suggested by McCracken. McCracken's silent reading rates for the primary grades are much slower than those given by Harris, but the rates for the fourth and fifth grades are very similar. There is also a significant difference in rates for the sixth and seventh grades.

V. SUMMARY OF LITERATURE

The literature on the differences in functioning levels, the informal reading inventory, the cloze procedure, and the rate of reading is diversified as well as abundant. The authorities on the informal reading inventory, the cloze procedure, and the rate of reading are not in complete agreement with each other, but they do offer reliable descriptions of every aspect of these areas. The research on the differences in functioning levels suggests the need
for a reliable tool to measure reading achievement, such as the informal reading inventory. There is still some disagreement concerning aspects of designing and administering the inventory, but it is accepted as a useful classroom tool. One limitation of the inventory, the comprehension questions, can be minimized by the use of cloze procedure to check comprehension. The oral and silent reading on the informal reading inventory can be further evaluated by the use of the rate of reading.

The review of literature presented in this chapter forms the basis for the procedure outline in the following chapter to develop the informal reading inventory used in conjunction with the cloze procedure and the rates of silent and oral reading.
FOOTNOTES


3Ibid.

4Ibid.


10Ibid.


12Marjorie S. Johnson, "Reading Inventories For Classroom Use," The Reading Teacher, XIV (September, 1960), p. 11.

13Sheldon, op. cit., p. 2.

14Powell, loc. cit.

16Aaron, loc. cit.

17Ibid.

18Sheldon, op. cit., p. 5.

19Powell, op. cit., p. 6.

20Ibid.

21Ibid.

22Jeanne Chall, "Ask Him To Try the Book for Fit," The Reading Teacher, VII (December, 1953), p. 83.

23Ibid.

24Ibid.


26Ibid.

27Ibid.

28Powell, op. cit., p. 7.

29Ibid.

30Powell, op. cit., p. 9.

31Ibid.

32Ibid.

33Aaron, op. cit., p. 459.

34Powell, op. cit., p. 10.

35Ibid.


37Powell, loc. cit.
38 Miles A. Tinker, Bases for Effective Reading (Minneapolis: University of Minnesota Press, 1965), p. 274.

39 Chall, loc. cit.

40 Gipe, op. cit., p. 32.

41 Zintz, op. cit., p. 28.

42 Robert A. McCracken, "The Informal Reading Inventory As A Means of Improving Instruction," Perspectives In Reading--The Evaluation of Children's Reading Achievement, International Reading Association, VIII (1967), p. 84.

43 Tinker, op. cit., p. 273.

44 Ibid., p. 274.

45 Ibid.

46 Ibid.

47 Ibid.

48 McCracken, op. cit., p. 83.

49 Sheldon, op. cit., p. 2.

50 Aaron, loc. cit.

51 Ibid.

52 Ibid.

53 Wheeler, loc. cit.

54 Betts, op. cit., p. 471.


56 Powell, op. cit., p. 4.

57 Ibid., p. 9.

58 Ibid., p. 3.
59 Sheldon, op. cit. p. 8.
60 Betts, op. cit. p. 478.
62 Ibid., p. 416.
63 Ibid.
66 Ibid.
67 Taylor, loc. cit.
68 Ibid.
71 Rankin, loc. cit.
74 Ibid.
75 Taylor, _loc. cit._
76 John Bormuth, "Cloze As a Measure of Readability," _Reading As An Intellectual Activity_, VIII (1963), p. 134.
77 Hafner, _op. cit._, p. 141.
78 Bormuth, _op. cit._, p. 303.
81 McCracken, _op. cit._, p. 85.
CHAPTER III

PROCEDURE OF THE STUDY

The informal reading inventory used in conjunction with the rate of reading and the cloze procedure was administered to a total population of sixty children. The sample consisted of thirty-one girls and twenty-nine boys. There were twelve children from each grade level, second grade through the sixth grade, involved in the study. The children ranged in ability from the "high reading group" to the "low reading group."

The informal reading inventory and the cloze procedure tests were designed and administered by the writer to obtain the most accurate results possible. The following is a report of the construction, administration, and interpretation of the informal reading inventory and cloze tests. The procedure for determining the rate of reading is also discussed.

I. THE INFORMAL READING INVENTORY

Construction of the informal reading inventory. The informal reading inventory used in the testing was based on the Lyons and Carnahan Series of graded readers for the primer through grade eight levels. The selections were chosen on the basis of their interest to boys and girls,
the Spache Readability Formula for Primary-Grade Material, or the Dale-Chall Formula for Predicting Readability. The readability formulas evaluate the reading level of materials based on the average sentence length and the number of unfamiliar words. "Unfamiliar words" are words that do not appear on Stone's revision of the "Dale List of 769 Easy Words" or the Dale List of 3,000 Familiar Words."

There was one oral selection and a following silent selection taken from each, the primer through 3\textsuperscript{2} book. Two oral and silent reading selections were taken from the fourth through sixth grade readers which produced 4\textsuperscript{1}, 4\textsuperscript{2}, 5\textsuperscript{1}, 5\textsuperscript{2}, 6\textsuperscript{1} and 6\textsuperscript{2} levels.

To facilitate testing, a sample of twenty words were chosen from the primer, first reader, second readers, and third grade readers. The total number of "new" words introduced in each book was counted; this number was divided by twenty. The quotient was used to determine every "nth" word to achieve a random sample. The words were put on index cards and were quickly shown to each child to help determine at what level to begin the testing. The child began the informal reading inventory at the book level at which he had correctly identified nineteen of the twenty word cards.

**Administering the informal reading inventory.** The
informal reading inventory began with a motivational question which preceded the oral reading selection. Each oral selection began with a new story, and the silent selection continued where the oral reading had ended. After the child had read the oral selection, he was asked five questions about the material he had read. The questions involved four types; factual questions which dealt with one specific area; inferential questions which checked the child's ability to "read between the lines"; vocabulary questions which evaluated a child's understanding of a term that was used in the story, but was not defined; and questions which appraised the child's ability to understand the meaning of a word by using context clues. The fifth question involved an interesting item in the story and repeated one of the question types used previously. When the answers were evaluated, this was done on the basis of the type of question asked. A child's answer was considered to be correct if it contained the correct information based on the story and was appropriate to the type of question asked.

Five questions were used for each of the oral and silent reading selections because of the time element and the limited number of "good" questions that could be found in each story without resorting to mere memory questions, "catch questions," or questions that involved the exact
wording used in the story.

Each child was asked to read from the various books until the examiner had found the child’s independent, instructional, and frustration levels as defined by McCracken (see page 18). When the child reached his frustration level, the informal reading inventory was concluded. There was no attempt to determine a capacity level for any child.

**Evaluating the reading.** The oral selection in the informal reading inventory needs special consideration because decisions based on its use are so important. There are many variables that affect the oral selection, and knowing them helps to interpret the results. One variable is the child. If the examiner does not establish rapport with the child, he may be anxious about the oral reading especially when the examiner records the oral errors. The child may also become more involved in watching errors being marked then reading correctly.

Another factor is the examiner and his interpretation of the child’s errors. It would be possible for two examiners to arrive at somewhat different results based on the same child’s performance. The child’s performance could also vary from one testing situation to another; therefore, it is necessary to continually recheck children throughout the year.
The child's oral reading may also be affected by the type of material he is reading. Interest in the reading material may prompt a child to do a better job as compared to material in which he is not interested.

There are many methods of recording errors during oral reading in the informal reading inventory. The following is the system that was used in recording and interpreting errors for this study. The best system is that which is developed by the individual after evaluating many children; therefore, "any system that is meaningful to the teacher and which can be interpreted at a later date is adequate."¹ It is important to have a consistent system so that records can be maintained and progress noted. The following system has three divisions: (1) errors to be counted, (2) errors that may be counted, and (3) other notations.

Analyzing the oral reading. The following are types of oral reading errors that were counted as word recognition errors:

1. Words pronounced for the child: If a pupil hesitates for approximately five seconds on a difficult word, pronounce it for him and write a "P" over it. You may mark every two seconds of hesitation with a check (✓). Do not count the hesitation if the child reads the word correctly within five seconds. Proper nouns are given to the child as needed and are not scored as errors unless the proper noun is a word that most children would know. Example: Big Brown
2. Mispronunciation: This results in a nonsense word which may be produced by: (1) false accentuation, (2) wrong pronunciation of vowels or consonants, or (3) the omission, addition or insertion of one or more letters without creating a real or new word. Example: crēt' ŋk for critic. Write the child's pronunciation above phonetically. Notice word attack methods and enunciation. If errors come too rapidly for recording, draw a line through mispronounced words. Do not count foreign accent or regional speech mannerisms.

3. Omissions: Encircle the omitted word, syllable, letter sound or ending that are omitted. "Count as one error the omission of more than one word of consecutive print."³

4. Substitutions: This occurs when one sensible or real word is put in the place of the word in print. Write the substituted word directly above the word presented in print. Note if it makes sense or if its irrelevant to the context.

5. Insertions: These are words that do not appear in the printed material. Place a caret (ⁿ), and write the added word or words. Count as one error the insertion of two or more words consecutively.⁴

The following oral reading mannerisms show a possible weakness and were considered when they were frequent or the child was doubtful about what he had read. The following oral reading mannerisms may be counted as errors:

1. Repetitions: A word, part of a word, or groups of words that are repeated; this may indicate that the child is having trouble understanding what he reads. Write "R" above repeated words. If several words are repeated, draw a line with an "R" over the words.

2. Corrections: Write a "C" by the mistake when the child corrects the error. Count this as an error if the child is not sure that he made the right correction.
The following aspects of reading were noted on the evaluation, but they were not counted as errors. They are notations that will help in diagnosis, but they are not to be counted as errors:

1. Phrasing: Use a diagonal mark to indicate undue pauses or incorrect phrasing. If frequent write "In. Ph." for inadequate phrasing; write "W/W" for word-by-word reading in the margin.

2. Punctuation: Put an "x" on punctuation marks that the child ignores or passes over. If frequent write "Ig. Punct."

3. Rate: As difficulty increases, the child may read "slowly" and/or "haltingly." Indicate this. Remember to time the selection in order to determine words per minute.

When the reading material increased in difficulty, the examiner watched for the following symptoms of reading difficulty:

1. Head movement: Head may move with every fixation of the child's eyes.

2. Finger pointing: Uses finger or pointer to guide his eye movements.

3. Tension movements: Child fidgets, frowns, sighs, bites his lips, shakes, or shows other signs of reading difficulty.

4. Lip movements: Child moves his lips when he is figuring out words or thinking.

5. Book Too Close: The child holds the book closer than 15 to 18 inches from his eyes.

6. Loses place: The child loses his place frequently; this may indicate a vision problem.

7. Voice: Strained or high pitched voice may be an indication of tension.
8. Posture: The child has poor posture while reading; this may be the result of fatigue.

To avoid arbitrary error counting, the following suggestions by McCracken\textsuperscript{5} were used to determine the number of word recognition errors.

1. Count only one error at any place in the reading.

2. Count as one error the omission of more than one word of consecutive print.

3. Count as one error the addition of two or more words consecutively.

4. Count as one error if the child makes a second error caused by his forcing grammatical agreement.

5. Count as one error the mispronouncing of a proper name or difficult word if the word appears more than once in a 100 to 150 word selection and is mispronounced two or more times.

6. Count simple errors each time they occur.

Recording and evaluating errors involves skill that comes with practice and includes many variables. In noting the child's performance, check sheets are useful to a certain extent, but an experienced teacher can better identify and record such things as physical symptoms by carefully observing the child.

It is also suggested that the teacher be as precise as possible when using recording methods. It is helpful to use letters of the alphabet such as "r" (repeated) or "f" (pronounced for child) instead of using lines. At a
later date, it is difficult to remember what a line meant, but it is much easier to remember a phonetic spelling or letters that stand for something. It might be useful for an entire school to adopt one system of recording errors with some allowances for individual differences.

The evaluation of the informal reading inventory should contain a summary of the results. The percentages and estimated reading levels should be included with brief comments about errors and physical symptoms.

If the student is familiar with the tape recorder, and its use presents no additional problems; it is an excellent plan to put the child's reading on tape and then it can be replayed later for re-checking the scoring. Once on tape, the teacher can hear the sample of the child's reading at any time.

II. CLOZE PROCEDURE

Description of cloze procedure. Cloze procedure involves an evaluation of a child's comprehension skills. The skills are evaluated by having the child complete in writing a story that has been "mutilated." The stories used in the study were "mutilated" by removing every fifth word and replacing it with a blank that was ten spaces long. The following is a part of the story that was representative
of the second grade level.

Three Little Monkeys

Once there were three __________ monkeys. They had funny __________. Their eyes were little __________ eyes. It was funny __________ to see them play. __________ away where these little __________ lived there was no __________, no snow, no ice. __________ was never cold. All __________ days were hot. In __________ faraway woods there were __________, many trees. There were __________ trees and banana trees __________ many other kinds of trees.

Construction of the cloze tests. The cloze tests were made from the following stories: (1) "Three Little Monkeys" at the 2^2 level in The Story Road^6, (2) "Oscar's Airplane Ride" at the 3^2 level in Enchanting Stories^7, (3) "Master of All Masters" at the 4^2 level in Roads to Everywhere^8, (4) "The Princess and the Glass Mountain" at the 5^2 level in Basic Reading^9, (5) "Andy's Choice" at the 6^2 level in Arrivals and Departures^10, and (6) "Cutlass Island" at the seventh through ninth grade levels in New Horizons.^11 The stories ranged in length from 130 to 193 words; this was less than the suggested length, but the children each took two or three cloze tests. The stories were shortened to avoid student fatigue. Each story was reproduced in the "mutilated" form in which every fifth word was omitted and replaced by a line.

Administering the cloze tests. Forty-eight children
in the sample, second graders excluded, were each given three cloze tests during the testing session. The cloze tests were assigned on the basis of grade level, not reading level. One cloze test was one grade level below their actual grade level, one cloze test was at their grade level; and one cloze test was one grade level above their actual grade level. The second graders were given only two cloze tests during the testing session because the cloze procedure was not recommended for second graders. The studies on cloze procedure had previously been done with children in the fourth grade and higher. The second graders had a very difficult time doing the cloze tests.

The children were given the tests and allowed to work on them at their own rate. When the children became too frustrated to complete the cloze tests, they were allowed to do the easier blanks and skip the other items or just stop taking the cloze tests. Every child in the sample displayed their understanding of the directions for doing the cloze test by correctly completing at least four blanks or cloze units. The children did not seem to feel that the cloze tests were "seatwork" because they decided which blanks they could complete with an acceptable answer. The children were told not to worry about their spelling or handwriting abilities. The spelling and handwriting skills
did not present a problem during the testing or the scoring of the cloze tests.

**Evaluating the cloze tests.** When the tests were corrected, the spelling was not "counted," and only the exact omitted word was considered to be correct. Each test was scored as follows: the percentage of correct answers was doubled. The frustration level was below forty per cent correct; instructional level was between forty and fifty per cent correct; and the independent level was fifty per cent correct or above. The score assigned to a test was double the percentage of correct responses. By doubling the percentage of correct answers, the examiner compensated for only counting the "exact answer" as correct, and the scores were put into similar ranges with the informal reading inventory level scores. When the results of the cloze tests were evaluated, the "cloze level" was used rather than the percentage of correct answers or the doubled score.

The percentage of correct responses used to assign the cloze score and determine the cloze level is presented in a table which is found on the following page.
TABLE 6

PERCENTAGE OF CORRECT RESPONSES USED TO ASSIGN THE CLOZE SCORE AND DETERMINE THE CLOZE LEVEL

<table>
<thead>
<tr>
<th>Levels of Comprehension Based on the Cloze Test</th>
<th>Percentage of Correctly Completed Cloze Units</th>
<th>Score Assigned to Tests Based on Percentage of Correct Answers</th>
</tr>
</thead>
<tbody>
<tr>
<td>Independent</td>
<td>50% or above</td>
<td>100 or above</td>
</tr>
<tr>
<td>Instructional</td>
<td>40% or above</td>
<td>80 or above</td>
</tr>
<tr>
<td>Frustration</td>
<td>Below 40%</td>
<td>Below 80</td>
</tr>
</tbody>
</table>

III. RATE OF READING

The last factor correlated with the informal reading inventory was the rate or oral and silent reading. A stop-watch was used to time each selection as the children read silently and orally. The time was converted into words per minute for each selection that a child read. Each child was instructed to read at his "normal speed" or the speed that he used when he read for his teacher.

IV. METHODS FOR ANALYZING THE DATA

The first procedure involved the comparison of the teacher assigned reading level to the instructional level of students as measured by the informal reading inventory.

The next procedure involved determining the
correlation between the students' informal reading inventory levels and the students' cloze procedure levels using Pearson's Correlation Coefficient of \( r = \frac{S_{xy}}{S_x S_y} \).

The mean was also computed for each level of the informal reading inventory and the cloze procedure. The difference in the means for each level of the informal reading inventory and the cloze procedure was determined. By subtracting the mean of a level of the informal reading inventory from the mean of a level of the cloze test, the difference of the means was determined.

The average of the difference in the means was also determined. This gave an indication of how much the cloze test results should be shifted to make them more closely correspond to the informal reading inventory scores. There was also a comparison of the percentage of cloze levels that correspond to the instructional level of the students as measured by the informal reading inventory.

The evaluation of the rate of reading involved determining the mean for the rate of silent and oral reading at the instructional level on the informal reading inventory. The rates from the sample were compared to the rates given by McCracken and Harris. The rate of silent and oral reading was also explored in respect to the difficulty of the reading material on the informal reading inventory.
V. SUMMARY OF PROCEDURES

The informal reading inventory and the cloze tests were designed and administered to the population in the manner specified. The informal reading inventory was checked by a readability formula. Each level consisted of an oral and silent reading selection and ten comprehension questions. The word recognition and comprehension percentages were evaluated in respect to the levels suggested by McCracken.

The cloze procedure consisted of seven selections, and the cloze levels were determined by the percentages of correctly completed cloze units or blanks.

The data was analyzed in six steps: (1) the comparison of the teacher assigned level to the students' instructional level as determined by the informal reading inventory, (2) the correlation between the informal reading inventory levels and the cloze levels, (3) the procedures for bringing the means numerically closer, (4) the comparison of the percentage of cloze levels that corresponded to the students' instructional level as determined by the informal reading inventory, (5) determining the rates of reading exhibited by the sample at the instructional level as determined by the informal reading inventory, and (6) the comparison of the reading level and reading rates of the silent and oral reading.

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FOOTNOTES


3 Robert A. McCracken, "The Informal Reading Inventory As A Means of Improving Instruction," Perspectives in Reading-The Evaluation of Children's Reading Achievement, International Reading Association, VIII (1967), p. 86.

4 Ibid.

5 Ibid., p. 86-87.


13 Ibid.
CHAPTER IV

ANALYSIS OF DATA

The interpretation of the data involved the following comparisons: (1) the comparison of the teacher assigned reading level to the students' instructional level as measured by the informal reading inventory, (2) the correlation between the students' informal reading inventory levels and the students' cloze procedure levels, (3) the difference in the means for each level of the informal reading inventory and the cloze procedure, (4) the comparison of the percentage of students' cloze procedure levels that correspond to the students' instructional levels as measured by the informal reading inventory, (5) the comparison of the reading level and reading rates of the silent and oral reading, and (6) the comparison of the silent and oral reading rates displayed by the sample with those rates established by McCracken and Harris. Other tables and discussions are included and used to further develop and explain the data presented.

I. COMPARISON OF TEACHER ASSIGNED LEVEL AND THE STUDENTS' INSTRUCTIONAL LEVEL AS MEASURED BY THE INFORMAL READING INVENTORY

The first analysis of data involved a comparison of
the teacher assigned reading level and the sixty students' instructional level as determined by the informal reading inventory. The teachers reported the level of the reading textbook used by each of the sixty children in the sample; this level was designated as the "reading level assigned to pupils by the teacher." The numbers under the book levels refer to the number of children who were instructional at each level. The results of the data for each grade level are summarized in the following tables.

**TABLE 7**

**COMPARISON OF TEACHER ASSIGNED READER LEVEL TO THE INFORMAL READING INVENTORY INSTRUCTIONAL LEVEL FOR TWELVE PUPILS IN GRADE TWO**

<table>
<thead>
<tr>
<th>Reading Level Assigned to Pupil By the Teacher</th>
<th>Number of Pupils in Each Instructional Level As Determined By the Informal Reading Inventory</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Below Primer</td>
</tr>
<tr>
<td>2&lt;sup&gt;1&lt;/sup&gt;</td>
<td>1</td>
</tr>
<tr>
<td>2&lt;sup&gt;2&lt;/sup&gt;</td>
<td>1</td>
</tr>
</tbody>
</table>

*Referred to later as an "exact match"

At the second grade level, seventy-five per cent of the twelve children were assigned to a level in their classroom that was above their informal reading inventory instructional level. Only one child was reading at the 2<sup>2</sup> level in
both the classroom and the informal reading inventory. Two children were reading at a level in their classroom that was below their informal reading inventory instructional level.

**TABLE 8**

**COMPARISON OF TEACHER ASSIGNED READER LEVEL TO THE INFORMAL READING INVENTORY INSTRUCTIONAL LEVEL FOR TWELVE PUPILS IN GRADE THREE**

<table>
<thead>
<tr>
<th>Reading Level Assigned to Pupil By the Teacher</th>
<th>Number of Pupils in Each Instructional Level As Determined By the Informal Reading Inventory</th>
</tr>
</thead>
<tbody>
<tr>
<td>$2^2$</td>
<td>1</td>
</tr>
<tr>
<td>$3^1$</td>
<td>1</td>
</tr>
<tr>
<td>$3^2$</td>
<td>1</td>
</tr>
</tbody>
</table>

* Referred to later as an "exact match"

At the third grade level, there was one exact correspondence between the teacher assigned level and the informal reading inventory instructional level. Seventy-five per cent of the twelve third graders were reading at a level that was above their informal reading inventory instructional level. Two children were reading at a level that was below their informal reading inventory instructional level.

The interpretation of the data for grades four through
six was influenced by the informal reading inventory which had two levels for the fourth through sixth grade readers, but the teachers reported the children's reading levels in terms of fourth, fifth, or sixth grade readers. In the comparison of levels for the children in the fourth grade readers, an exact correspondence or the difference in levels was determined on the basis of $4^1$ and $4^2$ being equivalent to the use of the fourth grade reader in the classroom. This correspondence was also applied to the fifth and sixth grade textbooks.

**TABLE 9**

**COMPARISON OF TEACHER ASSIGNED READER LEVEL TO THE INFORMAL READING INVENTORY INSTRUCTIONAL LEVEL FOR TWELVE PUPILS IN GRADE FOUR**

<table>
<thead>
<tr>
<th>Reading Level Assigned to Pupil By the Teacher</th>
<th>Number of Pupils in Each Instructional Level As Determined By the Informal Reading Inventory</th>
</tr>
</thead>
<tbody>
<tr>
<td>$2^2$</td>
<td>$2^1$ $2^2$ $3^1$ $3^2$ $4^1$ $5^1$ $6^1$ $6^2$</td>
</tr>
<tr>
<td></td>
<td>1 2*</td>
</tr>
<tr>
<td>$3^2$</td>
<td>1 1 1* 1</td>
</tr>
<tr>
<td>$4$</td>
<td>2* 1 1 1</td>
</tr>
</tbody>
</table>

* Referred to later as an "exact match"

At the fourth grade level, there were five of the twelve children who were reading at a level that matched
their informal reading inventory instructional level. Four children were reading at a level that was below their informal reading inventory instructional level while three children were reading in their classroom at a level that was above their informal reading inventory instructional level.

**TABLE 10**

**COMPARISON OF TEACHER ASSIGNED READER LEVEL TO THE INFORMAL READING INVENTORY INSTRUCTIONAL LEVEL FOR TWELVE PUPILS IN GRADE FIVE**

<table>
<thead>
<tr>
<th>Reading Level Assigned to Pupil By the Teacher</th>
<th>Number of Pupils in Each Instructional Level As Determined By the Informal Reading Inventory</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Below Primer 22 32 41 42 51 52 61 62</td>
</tr>
<tr>
<td>32</td>
<td>1 1 1*</td>
</tr>
<tr>
<td>4</td>
<td></td>
</tr>
<tr>
<td>7</td>
<td></td>
</tr>
</tbody>
</table>

* Referred to later as an "exact match"

In the fifth grade sample of twelve children, there were three children who were reading at a level that exactly corresponded to their informal reading inventory instructional level. Half of the students were reading at a level that was above their informal reading inventory instructional level. The table for the fifth grade sample also showed that

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twenty-five per cent of the twelve students were reading at a level that was below their informal reading inventory instructional level.

The sample from the sixth grade revealed that seventy-five per cent of the twelve children were reading at a level that exactly matched their informal reading inventory instructional level. The teacher had three children who were reading below their instructional level; these children were instructional at the eighth grade reader level as measured by the informal reading inventory. The informal reading inventory did not go further, so the frustration level for these children was not determined.

**TABLE 11**

**COMPARISON OF TEACHER ASSIGNED READER LEVEL TO THE INFORMAL READING INVENTORY INSTRUCTIONAL LEVEL FOR TWELVE PUPILS IN GRADE SIX**

<table>
<thead>
<tr>
<th>Reading Level Assigned to Pupil By the teacher</th>
<th>Number of Pupils in Each Instructional Level As Determined By the Informal Reading Inventory</th>
</tr>
</thead>
<tbody>
<tr>
<td>6</td>
<td>$6^1$</td>
</tr>
<tr>
<td>6</td>
<td>2*</td>
</tr>
</tbody>
</table>

* Referred to later as an "exact match"

The data from the preceding five tables were condensed into a table that summarized the correspondence between the students' instructional level as determined by the informal
reading inventory and the teacher assigned level. The "exact matches" were identified in the tables for each grade level; these represented a correspondence between the level assigned to the pupil by the teacher and the instructional level determined by the informal reading inventory. The positive and negative numbers describe the number of levels that the teacher assigned level was above or below the instructional level identified by the informal reading inventory.

**TABLE 12**

**SUMMARY OF THE CORRESPONDENCE OF THE TEACHER ASSIGNED READER LEVEL TO THE INSTRUCTIONAL LEVEL DETERMINED BY THE INFORMAL READING INVENTORY FOR SIXTY PUPILS IN GRADES TWO THROUGH SIX**

<table>
<thead>
<tr>
<th>Grade Level</th>
<th>Number of Students With Teacher Assigned Level Below Their Instructional Level</th>
<th>Exact Match*</th>
<th>Number of Students With Teacher Assigned Level Above Their Instructional Level</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>-3</td>
<td>-2</td>
<td>-1</td>
</tr>
<tr>
<td>Second:</td>
<td>2</td>
<td>1</td>
<td>3</td>
</tr>
<tr>
<td>Third:</td>
<td>1</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>Fourth:</td>
<td>2</td>
<td>2</td>
<td>5</td>
</tr>
<tr>
<td>Fifth:</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>Sixth:</td>
<td>3</td>
<td></td>
<td>9</td>
</tr>
<tr>
<td>Total:</td>
<td>1</td>
<td>6</td>
<td>7</td>
</tr>
</tbody>
</table>

* Referred to previously as an "exact match"
In the sample of sixty children, the total showed that twenty-three per cent of the children were reading below their informal reading inventory instructional level; forty-five per cent of the children were reading above their informal reading inventory instructional level; and thirty-two per cent of the sixty children were reading at a level that exactly matched their instructional level as measured by the informal reading inventory. When the entire sample of sixty children was considered, it was found that sixty-eight per cent of the children were inaccurately placed in their classroom reading textbooks or teacher assigned levels.

Some of the discrepancies in the lower grades may have been caused by the children's familiarity with the Scott-Foresman and Ginn Reading Series. The children had never used the Lyons and Carnahan Series as a basal reading series and were unfamiliar with some of the vocabulary used.

II. COMPARISON OF THE STUDENTS' SCORES ON THE INFORMAL READING INVENTORY AND THE CLOZE PROCEDURE TESTS

The second analysis of data involved the comparison of the scores on the informal reading inventory with the cloze procedure scores. This comparison was designed to compensate for a limitation of the informal reading inventory—the quality and number of comprehension questions. The cloze procedure scores were analyzed in terms of a further check.
for comprehension skills.

As suggested in the literature, the cloze procedure was not designed for children below the fourth grade. The third graders had no difficulty with the cloze procedure, but the second grade children had trouble combining context clues with their reading ability. Eleven second graders were frustrational at the 2\textsuperscript{2} level of the cloze test; the informal reading inventory showed that ten of these children were instructional below the 2\textsuperscript{2} level, and one child was instructional at the 3\textsuperscript{1} level. One child was instructional at the 2\textsuperscript{2} level on the cloze test as well as the informal reading inventory.

The results of the cloze tests for grades three through six were more complicated. As explained previously, each child was given three cloze tests based on his school grade level as opposed to his reading level. One cloze test was one grade level below the school assigned grade level; one cloze test was at the same level as the school assigned grade level; and the last cloze test was one grade level above the school assigned grade level. The children who read more than one grade level below the grade level assigned by the teacher tended to be frustrational in the cloze tests for their grade level. For example, a child in the fifth grade with an informal reading inventory
instructional level of 3^2 was frustrating on the cloze tests at the 4^2, 5^2, and 6^2 levels because of the assignment of the cloze tests by grade level rather than reading level.

As a result of the assignment of the cloze tests, ten of the forty-eight children took cloze tests that were at a higher level than their informal reading inventory instructional level. These ten children and six other children had frustrating level scores on all three of the cloze tests which they took; therefore, these sixteen children were excluded from the correlation because their cloze levels had not been determined.

The results of the one hundred and forty-four cloze tests for the forty-eight children in grades three through six are summarized in the next table. The table shows the students' cloze test results which are discussed later in the correlation. The table gives: (1) the number of cloze tests, and (2) the percentage of cloze tests that were at the independent, instructional, and frustration levels. The results of the cloze tests in respect to the independent, instructional, and frustration levels are given on the next page.

The forty-eight frustration cloze scores of the sixteen children greatly influenced the percentage of frustration scores. The percentage of instructional scores was not very "high" in comparison with the other percentages.
<table>
<thead>
<tr>
<th>Cloze Levels Based on Cloze Test Results</th>
<th>Number of Cloze Test Scores At Each Cloze Level</th>
<th>Percentage of Cloze Test Scores At Each Cloze Level</th>
</tr>
</thead>
<tbody>
<tr>
<td>Independent</td>
<td>43</td>
<td>30%</td>
</tr>
<tr>
<td>Instructional</td>
<td>19</td>
<td>13%</td>
</tr>
<tr>
<td>Frustration</td>
<td>82</td>
<td>57%</td>
</tr>
</tbody>
</table>

The children in the sample showed a tendency to either make a frustration score with less than forty per cent of the blanks correctly completed or an independent score with more than forty per cent of the blanks correctly completed. These levels will be considered in the next analysis of data.

Analysis of the correlation between the informal reading inventory levels and the cloze procedure levels. The correlation between the independent, instructional, and frustration levels of the informal reading inventory and the independent, instructional, and frustration levels of the cloze procedure was determined by using Pearson's Correlation Coefficient. The computational routine involved the following basic equation: 
\[
 r = \frac{S_{xy}}{N s_x s_y}
\]
included six scores for each of the thirty-two children in the sample. The cloze levels and informal reading inventory levels of sixteen children were excluded from the correlation because the children had frustration scores on all three cloze tests. The levels that were involved in the correlation included the independent, instructional, and frustration scores for both the informal reading inventory and the cloze procedure. The correlation of all six variables was 0.9399. This correlation was significant at the one per cent level. The correlation between each pair of the six variables was more clearly described in the following matrix of correlation coefficients.

**TABLE 14**

**CORRELATION COEFFICIENTS FOR THE INDEPENDENT, INSTRUCTIONAL, AND FRUSTRATION LEVELS OF THE INFORMAL READING INVENTORY AND CLOZE PROCEDURE**

<table>
<thead>
<tr>
<th>Variables:</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>6</th>
</tr>
</thead>
<tbody>
<tr>
<td>Informal Reading Inventory:</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1 Independent Level</td>
<td>.93</td>
<td>.92</td>
<td>.76</td>
<td>.78</td>
<td>.80</td>
</tr>
<tr>
<td>2 Instructional Level</td>
<td>.96</td>
<td>.76</td>
<td>.78</td>
<td></td>
<td>.81</td>
</tr>
<tr>
<td>3 Frustration Level</td>
<td>.77</td>
<td>.79</td>
<td></td>
<td>.83</td>
<td></td>
</tr>
<tr>
<td>Cloze Procedure:</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>4 Independent Level</td>
<td></td>
<td></td>
<td></td>
<td>.94</td>
<td>.88</td>
</tr>
<tr>
<td>5 Instructional Level</td>
<td></td>
<td></td>
<td></td>
<td>.92</td>
<td></td>
</tr>
<tr>
<td>6 Frustration Level</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
All of the correlation coefficients for the six variables are significant at the one per cent level. The correlation of variables one, two, and three suggested that the independent, instructional, and frustration levels of the informal reading inventory were closely related to each other. The correlation of variables four, five, and six showed that the independent, instructional, and frustration levels of the cloze procedure were also closely related to each other.

The correlation between the independent, instructional, and frustration levels on the informal reading inventory and the independent, instructional, and frustration levels of the cloze tests were all greater than the necessary .449 for thirty degrees of freedom for statistical significance at the one per cent level of confidence. This implied that the results of both informal tests were closely related to each other, and they both evaluated similar reading skills.

The significance of this correlation might have been anticipated because the informal reading inventory evaluated a child's word recognition and comprehension skills while the cloze procedure evaluated a child's comprehension skills. If this correlation between the two informal tests had not been significant, it would have implied that the cloze procedure and the informal reading inventory did not evaluate comprehension skills to the same degree or in the same way.
The informal reading inventory levels were closely correlated with each other. When the independent, instructional or frustration level of the informal reading inventory had a certain correlation with a level of the cloze test, there was a similar correlation between the other levels of the informal reading inventory with that cloze level. The correlation between the cloze level and the other informal reading inventory levels was approximately the same as the first correlation. This relationship was illustrated by the .93, .92, and .96 correlation of the independent, instructional, and frustration levels of the informal reading inventory. There was a .76 correlation between the independent level of the informal reading inventory and the independent level of the cloze procedure. Approximately the same correlation, .76 and .77, was found between the instructional and frustration levels of the informal reading inventory and the cloze independent level. This same type of correlation was found between the other informal reading inventory levels and the cloze levels.

The difference in the means for each level of the informal reading inventory and the cloze procedure. The analysis provided the mean for each level of the informal reading inventory and the cloze procedure. The following table describes the procedure and results for obtaining the
difference of the means.

TABLE 15

DIFFERENCE BETWEEN THE MEANS OF THE INFORMAL READING INVENTORY AT EACH LEVEL AND THE MEANS OF THE CLOZE PROCEDURE AT EACH LEVEL

<table>
<thead>
<tr>
<th>Level</th>
<th>Cloze Mean</th>
<th>Informal Reading Inventory Mean</th>
<th>Difference of the Means</th>
</tr>
</thead>
<tbody>
<tr>
<td>Independent</td>
<td>4.629</td>
<td>3.983</td>
<td>.646</td>
</tr>
<tr>
<td>Instructional</td>
<td>5.226</td>
<td>4.935</td>
<td>.291</td>
</tr>
<tr>
<td>Frustration</td>
<td>5.887</td>
<td>5.500</td>
<td>.387</td>
</tr>
</tbody>
</table>

Average Difference of Means .441 rounded to .5

The information in the table showed that the difference between the means of the informal reading inventory at each level and the means of the cloze procedure at each level was: (1) independent level, .646; (2) instructional level, .291; and (3) frustration level, .387. The average difference of the mean was .441. This was rounded to the nearest half grade level which was .5. Since the correlation between the informal reading inventory and the cloze procedure was shown to be significant, the scores on the cloze test were shifted down by .5 or one-half grade level. The difference in the means was: (1) independent level, .146; (2) instructional level, -.209; and (3) frustration level,
-.113. This meant that the levels on the informal reading inventory and the levels on the shifted cloze procedure were numerically closer. In application, this implied that a teacher could shift a cloze level down by a half grade level and obtain a better approximation to the informal reading inventory levels.

A comparison of students' cloze test levels with their informal reading inventory instructional level. To determine the correspondence between the informal reading inventory instructional level and the independent, instructional, and frustration level of cloze; categories for comparison were designed. The categories included the following: (1) cloze frustration level at or below the informal reading inventory instructional level, (2) cloze instructional level below the informal reading inventory instructional level, (3) cloze instructional level at the same level as the informal reading inventory instructional level, (4) cloze instructional level above informal reading inventory instructional level, and (5) cloze independent level at or above informal reading inventory instructional level. The percentage of cloze levels that matched the informal reading inventory instructional level as revealed by the sample was determined. In accordance with the difference in the means, the percentage of cloze levels that
correspond to the informal reading inventory instructional level was determined. When the cloze levels were shifted down by one-half grade level, the percentages of correspondence were changed. The change in the percentage of correspondence can be explained in the following way. The percentage of correspondence between the frustration level as determined by the cloze test and the instructional level determined by the informal reading inventory was 39.4% before the shift. The percentage of correspondence between the frustration level of the cloze test and the instructional level of the informal reading inventory was 21.6% after the shift or lowering by one-half grade level. This indicated that the lowered cloze level would classify fewer students as frustrational when the informal reading inventory indicated that the children were instructional at the given level.

The shifting produced a desirable result in two other factors in the following table. Two factors were inconsistent in that they indicated that the desired result occurred less often. The correspondence between the cloze instructional level and the informal reading inventory instructional level was shifted from 25.6% to 19%. This change in percentages indicated that fewer students would be instructional on both the informal reading inventory and the cloze test when the cloze level was shifted. The second
<table>
<thead>
<tr>
<th>Description of Cloze Levels Compared to the Instructional Level as Determined By the Informal Reading Inventory</th>
<th>Percentage of Cloze Levels That Corresponded to the Informal Reading Inventory Instructional Level Before Shift</th>
<th>Percentage of Cloze Levels That Corresponded to the Informal Reading Inventory Instructional Level After Shift</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cloze Frustration Level At or Below Informal Reading Inventory Instructional Level</td>
<td>39.4%</td>
<td>21.6%</td>
</tr>
<tr>
<td>Cloze Instructional Level Below Informal Reading Inventory Instructional Level</td>
<td>41.2%</td>
<td>21.6%</td>
</tr>
<tr>
<td>Cloze Instructional Level At Informal Reading Inventory Instructional Level</td>
<td>25.6%</td>
<td>19%</td>
</tr>
<tr>
<td>Cloze Instructional Level Above Informal Reading Inventory Instructional Level</td>
<td>30.2%</td>
<td>59.4%</td>
</tr>
<tr>
<td>Cloze Independent Level At or Above Informal Reading Inventory Instructional Level</td>
<td>25.6%</td>
<td>59.4%</td>
</tr>
</tbody>
</table>
correspondence involved the cloze instructional level being higher than the informal reading inventory instructional level. The change in percentages involved in this shift were 30.2% to 59.4%. This change in percentages indicated that more children were instructional on the shifted cloze test than were actually instructional at a lower level on the informal reading inventory.

The two inconsistencies were considered to be a small disadvantage compared to the benefits gained by using the shifted cloze test levels.

III. SUMMARY OF INFORMAL TEST RESULTS

The reading levels of the informal reading inventory, the cloze test, and the teacher assigned levels for all the subjects are listed in the following table. The level given for the informal reading inventory was the student's instructional level. The level assigned to the cloze test results was the highest independent or instructional score. The teacher assigned level was expressed in the textbook reading level that the teacher reported.

The informal test results were given by grade level to emphasize the range of ability found in the different grade levels. The reading levels of the informal tests and the teacher assigned levels for the entire sample are given in the following table.
<table>
<thead>
<tr>
<th>Subject</th>
<th>Grade Level</th>
<th>Instructional Level on Informal Reading Inventory</th>
<th>Highest Independent or Instructional Level on Cloze</th>
<th>Teacher Assigned Level</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>2nd</td>
<td>Below Primer</td>
<td>*</td>
<td>2&lt;sup&gt;1&lt;/sup&gt;</td>
</tr>
<tr>
<td>2.</td>
<td>2nd</td>
<td>Below Primer</td>
<td>*</td>
<td>2&lt;sup&gt;2&lt;/sup&gt;</td>
</tr>
<tr>
<td>3.</td>
<td>2nd</td>
<td>Primer</td>
<td>*</td>
<td>2&lt;sup&gt;1&lt;/sup&gt;</td>
</tr>
<tr>
<td>4.</td>
<td>2nd</td>
<td>Primer</td>
<td>*</td>
<td>2&lt;sup&gt;1&lt;/sup&gt;</td>
</tr>
<tr>
<td>5.</td>
<td>2nd</td>
<td>Primer</td>
<td>*</td>
<td>2&lt;sup&gt;1&lt;/sup&gt;</td>
</tr>
<tr>
<td>6.</td>
<td>2nd</td>
<td>Primer</td>
<td>*</td>
<td>2&lt;sup&gt;1&lt;/sup&gt;</td>
</tr>
<tr>
<td>7.</td>
<td>2nd</td>
<td>1&lt;sup&gt;1&lt;/sup&gt;</td>
<td>*</td>
<td>2&lt;sup&gt;1&lt;/sup&gt;</td>
</tr>
<tr>
<td>8.</td>
<td>2nd</td>
<td>1&lt;sup&gt;1&lt;/sup&gt;</td>
<td>*</td>
<td>2&lt;sup&gt;1&lt;/sup&gt;</td>
</tr>
<tr>
<td>9.</td>
<td>2nd</td>
<td>2&lt;sup&gt;1&lt;/sup&gt;</td>
<td>*</td>
<td>2&lt;sup&gt;2&lt;/sup&gt;</td>
</tr>
<tr>
<td>10.</td>
<td>2nd</td>
<td>2&lt;sup&gt;2&lt;/sup&gt;</td>
<td>*</td>
<td>2&lt;sup&gt;1&lt;/sup&gt;</td>
</tr>
<tr>
<td>11.</td>
<td>2nd</td>
<td>2&lt;sup&gt;2&lt;/sup&gt;</td>
<td>2&lt;sup&gt;2&lt;/sup&gt;</td>
<td>2&lt;sup&gt;2&lt;/sup&gt;</td>
</tr>
<tr>
<td>12.</td>
<td>2nd</td>
<td>3&lt;sup&gt;1&lt;/sup&gt;</td>
<td>*</td>
<td>2&lt;sup&gt;2&lt;/sup&gt;</td>
</tr>
<tr>
<td>13.</td>
<td>3rd</td>
<td>1&lt;sup&gt;1&lt;/sup&gt;</td>
<td>*</td>
<td>2&lt;sup&gt;2&lt;/sup&gt;</td>
</tr>
<tr>
<td>14.</td>
<td>3rd</td>
<td>2&lt;sup&gt;1&lt;/sup&gt;</td>
<td>*</td>
<td>3&lt;sup&gt;1&lt;/sup&gt;</td>
</tr>
<tr>
<td>15.</td>
<td>3rd</td>
<td>2&lt;sup&gt;1&lt;/sup&gt;</td>
<td>*</td>
<td>2&lt;sup&gt;2&lt;/sup&gt;</td>
</tr>
<tr>
<td>16.</td>
<td>3rd</td>
<td>2&lt;sup&gt;2&lt;/sup&gt;</td>
<td>*</td>
<td>3&lt;sup&gt;1&lt;/sup&gt;</td>
</tr>
<tr>
<td>17.</td>
<td>3rd</td>
<td>2&lt;sup&gt;2&lt;/sup&gt;</td>
<td>3&lt;sup&gt;2&lt;/sup&gt;</td>
<td>3&lt;sup&gt;2&lt;/sup&gt;</td>
</tr>
<tr>
<td>18.</td>
<td>3rd</td>
<td>2&lt;sup&gt;2&lt;/sup&gt;</td>
<td>3&lt;sup&gt;2&lt;/sup&gt;</td>
<td>3&lt;sup&gt;2&lt;/sup&gt;</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>---</td>
<td>---</td>
<td>---</td>
<td></td>
<td></td>
</tr>
<tr>
<td>19.</td>
<td>3rd</td>
<td>3&lt;sup&gt;1&lt;/sup&gt;</td>
<td>3&lt;sup&gt;2&lt;/sup&gt;</td>
<td>3&lt;sup&gt;2&lt;/sup&gt;</td>
</tr>
<tr>
<td>20.</td>
<td>3rd</td>
<td>3&lt;sup&gt;1&lt;/sup&gt;</td>
<td>3&lt;sup&gt;2&lt;/sup&gt;</td>
<td>3&lt;sup&gt;2&lt;/sup&gt;</td>
</tr>
<tr>
<td>21.</td>
<td>3rd</td>
<td>3&lt;sup&gt;1&lt;/sup&gt;</td>
<td>3&lt;sup&gt;2&lt;/sup&gt;</td>
<td>3&lt;sup&gt;2&lt;/sup&gt;</td>
</tr>
<tr>
<td>22.</td>
<td>3rd</td>
<td>3&lt;sup&gt;2&lt;/sup&gt;</td>
<td>3&lt;sup&gt;2&lt;/sup&gt;</td>
<td>3&lt;sup&gt;2&lt;/sup&gt;</td>
</tr>
<tr>
<td>23.</td>
<td>3rd</td>
<td>4&lt;sup&gt;1&lt;/sup&gt;</td>
<td>3&lt;sup&gt;2&lt;/sup&gt;</td>
<td>3&lt;sup&gt;2&lt;/sup&gt;</td>
</tr>
<tr>
<td>24.</td>
<td>3rd</td>
<td>6&lt;sup&gt;2&lt;/sup&gt;</td>
<td>4&lt;sup&gt;2&lt;/sup&gt;</td>
<td>3&lt;sup&gt;2&lt;/sup&gt;</td>
</tr>
<tr>
<td>25.</td>
<td>4th</td>
<td>2&lt;sup&gt;1&lt;/sup&gt;</td>
<td>*</td>
<td>2&lt;sup&gt;2&lt;/sup&gt;</td>
</tr>
<tr>
<td>26.</td>
<td>4th</td>
<td>2&lt;sup&gt;2&lt;/sup&gt;</td>
<td>*</td>
<td>2&lt;sup&gt;2&lt;/sup&gt;</td>
</tr>
<tr>
<td>27.</td>
<td>4th</td>
<td>2&lt;sup&gt;2&lt;/sup&gt;</td>
<td>*</td>
<td>2&lt;sup&gt;2&lt;/sup&gt;</td>
</tr>
<tr>
<td>28.</td>
<td>4th</td>
<td>2&lt;sup&gt;2&lt;/sup&gt;</td>
<td>4&lt;sup&gt;2&lt;/sup&gt;</td>
<td>3&lt;sup&gt;2&lt;/sup&gt;</td>
</tr>
<tr>
<td>29.</td>
<td>4th</td>
<td>3&lt;sup&gt;1&lt;/sup&gt;</td>
<td>3&lt;sup&gt;2&lt;/sup&gt;</td>
<td>3&lt;sup&gt;2&lt;/sup&gt;</td>
</tr>
<tr>
<td>30.</td>
<td>4th</td>
<td>3&lt;sup&gt;2&lt;/sup&gt;</td>
<td>3&lt;sup&gt;2&lt;/sup&gt;</td>
<td>3&lt;sup&gt;2&lt;/sup&gt;</td>
</tr>
<tr>
<td>31.</td>
<td>4th</td>
<td>4&lt;sup&gt;1&lt;/sup&gt;</td>
<td>4&lt;sup&gt;2&lt;/sup&gt;</td>
<td>3&lt;sup&gt;2&lt;/sup&gt;</td>
</tr>
<tr>
<td>32.</td>
<td>4th</td>
<td>4&lt;sup&gt;2&lt;/sup&gt;</td>
<td>3&lt;sup&gt;2&lt;/sup&gt;</td>
<td>4&lt;sup&gt;1&lt;/sup&gt;</td>
</tr>
<tr>
<td>33.</td>
<td>4th</td>
<td>4&lt;sup&gt;1&lt;/sup&gt;</td>
<td>3&lt;sup&gt;2&lt;/sup&gt;</td>
<td>4&lt;sup&gt;1&lt;/sup&gt;</td>
</tr>
<tr>
<td>34.</td>
<td>4th</td>
<td>5&lt;sup&gt;1&lt;/sup&gt;</td>
<td>5&lt;sup&gt;2&lt;/sup&gt;</td>
<td>4&lt;sup&gt;1&lt;/sup&gt;</td>
</tr>
<tr>
<td>35.</td>
<td>4th</td>
<td>6&lt;sup&gt;1&lt;/sup&gt;</td>
<td>5&lt;sup&gt;2&lt;/sup&gt;</td>
<td>4&lt;sup&gt;1&lt;/sup&gt;</td>
</tr>
<tr>
<td>36.</td>
<td>4th</td>
<td>6&lt;sup&gt;2&lt;/sup&gt;</td>
<td>3&lt;sup&gt;2&lt;/sup&gt;</td>
<td>4&lt;sup&gt;1&lt;/sup&gt;</td>
</tr>
<tr>
<td>37.</td>
<td>5th</td>
<td>Below Primer</td>
<td>*</td>
<td>3&lt;sup&gt;2&lt;/sup&gt;</td>
</tr>
<tr>
<td>38.</td>
<td>5th</td>
<td>2&lt;sup&gt;2&lt;/sup&gt;</td>
<td>*</td>
<td>3&lt;sup&gt;2&lt;/sup&gt;</td>
</tr>
<tr>
<td>39.</td>
<td>5th</td>
<td>3&lt;sup&gt;2&lt;/sup&gt;</td>
<td>*</td>
<td>3&lt;sup&gt;2&lt;/sup&gt;</td>
</tr>
<tr>
<td>40.</td>
<td>5th</td>
<td>4&lt;sup&gt;1&lt;/sup&gt;</td>
<td>*</td>
<td>4&lt;sup&gt;1&lt;/sup&gt;</td>
</tr>
<tr>
<td>41.</td>
<td>5th</td>
<td>4&lt;sup&gt;2&lt;/sup&gt;</td>
<td>*</td>
<td>4&lt;sup&gt;1&lt;/sup&gt;</td>
</tr>
<tr>
<td>No.</td>
<td>Grade</td>
<td>Code</td>
<td>Score</td>
<td></td>
</tr>
<tr>
<td>-----</td>
<td>-------</td>
<td>------</td>
<td>-------</td>
<td></td>
</tr>
<tr>
<td>42.</td>
<td>5th</td>
<td>5(^1)</td>
<td>*</td>
<td></td>
</tr>
<tr>
<td>43.</td>
<td>5th</td>
<td>5(^2)</td>
<td>*</td>
<td></td>
</tr>
<tr>
<td>44.</td>
<td>5th</td>
<td>6(^1)</td>
<td>4(^2)</td>
<td></td>
</tr>
<tr>
<td>45.</td>
<td>5th</td>
<td>6(^1)</td>
<td>6(^2)</td>
<td></td>
</tr>
<tr>
<td>46.</td>
<td>5th</td>
<td>6(^1)</td>
<td>5(^2)</td>
<td></td>
</tr>
<tr>
<td>47.</td>
<td>5th</td>
<td>6(^1)</td>
<td>5(^2)</td>
<td></td>
</tr>
<tr>
<td>48.</td>
<td>5th</td>
<td>6(^2)</td>
<td>6(^2)</td>
<td></td>
</tr>
<tr>
<td>49.</td>
<td>6th</td>
<td>6(^1)</td>
<td>5(^2)</td>
<td></td>
</tr>
<tr>
<td>50.</td>
<td>6th</td>
<td>6(^1)</td>
<td>7</td>
<td></td>
</tr>
<tr>
<td>51.</td>
<td>6th</td>
<td>6(^2)</td>
<td>*</td>
<td></td>
</tr>
<tr>
<td>52.</td>
<td>6th</td>
<td>6(^2)</td>
<td>*</td>
<td></td>
</tr>
<tr>
<td>53.</td>
<td>6th</td>
<td>6(^2)</td>
<td>6(^2)</td>
<td></td>
</tr>
<tr>
<td>54.</td>
<td>6th</td>
<td>6(^2)</td>
<td>6(^2)</td>
<td></td>
</tr>
<tr>
<td>55.</td>
<td>6th</td>
<td>6(^2)</td>
<td>6(^2)</td>
<td></td>
</tr>
<tr>
<td>56.</td>
<td>6th</td>
<td>6(^2)</td>
<td>6(^2)</td>
<td></td>
</tr>
<tr>
<td>57.</td>
<td>6th</td>
<td>6(^2)</td>
<td>5(^2)</td>
<td></td>
</tr>
<tr>
<td>58.</td>
<td>6th</td>
<td>8</td>
<td>7</td>
<td></td>
</tr>
<tr>
<td>59.</td>
<td>6th</td>
<td>8</td>
<td>7</td>
<td></td>
</tr>
<tr>
<td>60.</td>
<td>6th</td>
<td>8</td>
<td>7</td>
<td></td>
</tr>
</tbody>
</table>

* No score because it was impossible to determine the cloze score for these children.

The scores for the children in the second grade were excluded from the correlation. The other sixteen frustration
scores were also excluded from the correlation because ten of the children took cloze tests that were above their reading level, and it was impossible to determine what the cloze level would have been for the other six children. The correlation used the cloze levels and informal reading inventory levels for thirty-two children in grades three through six.

IV. COMPARISON OF LEVELS AND AVERAGE RATES OF SILENT AND ORAL READING

The analysis of data about the rate of silent and oral reading involved two aspects. First, the comparison of the reading levels and reading rates of the silent and oral reading; and secondly, the comparison of the silent and oral reading rates displayed by the sample with those rates established by McCracken and Harris.

Comparison of the rates of silent and oral reading for the informal reading inventory levels. The first comparison of the levels and rates of silent and oral reading was based on the independent level. Each child's independent level as determined by the informal reading inventory was considered to be the "base". It was assumed that a child's rate would be influenced by the difficulty of the material; therefore, as the reading material became more difficult,
the child's rate would be influenced. The independent level was used as the "base" because the child displayed his best reading skills at the independent level.

The comparison was divided into two tables: (1) oral reading, and (2) silent reading. The expected pattern was one in which the rate of reading at the instructional and frustration levels would be slower than the rate of reading at the independent level of the informal reading inventory. The tables on the following pages revealed the other patterns of oral and silent reading rate.

The largest percentage indicated that thirty-seven per cent of the children showed a decrease in reading rate during their reading of the instructional and frustration level materials. In contrast to the children who read more slowly as the difficulty of the material increased, twenty-four per cent of the children read more quickly as the difficulty of the material increased. When the last two percentages were combined, it was found that thirty-nine per cent of the children had patterns that varied.

The analysis of the silent reading rates showed that forty-two per cent of the children slowed down during silent reading, but twenty-six per cent of the children read faster as the material became more difficult. When the last two percentages were combined, it was found that
**TABLE 18**


<table>
<thead>
<tr>
<th>Description of the Relationship of the Rate of Oral Reading of the Informal Reading Inventory Independent Level to the Instructional and Frustrational Levels</th>
<th>Percentage of Children's Oral Reading Rates That Met Criteria</th>
</tr>
</thead>
<tbody>
<tr>
<td>Instructional and frustrational oral reading rates that were slower than the independent level oral reading rate</td>
<td>37%</td>
</tr>
<tr>
<td>Instructional and frustrational oral reading rates that were faster than the independent oral reading rate</td>
<td>24%</td>
</tr>
<tr>
<td>Instructional oral reading rates faster than independent oral reading rates but the frustrational oral reading rate was slower than the independent oral reading rate</td>
<td>24%</td>
</tr>
<tr>
<td>Instructional oral reading rate slower than independent oral reading rate, but the frustrational oral reading rate was faster than the independent oral reading rate</td>
<td>15%</td>
</tr>
<tr>
<td>Description of the Relationship of the Rate of Silent Reading of the Informal Reading Inventory Independent Level to the Instructional and Frustrational Levels</td>
<td>Percentage of Children's Silent Reading Rates That Met Criteria</td>
</tr>
<tr>
<td>---</td>
<td>---</td>
</tr>
<tr>
<td>Instructional and frustrational silent reading rates that were slower than the independent level silent reading rate</td>
<td>42%</td>
</tr>
<tr>
<td>Instructional and frustrational silent reading rates that were faster than the independent silent reading rate</td>
<td>26%</td>
</tr>
<tr>
<td>Instructional silent reading rates faster than independent silent reading rates, but the frustrational silent reading rate was slower than the independent silent reading rate</td>
<td>17%</td>
</tr>
<tr>
<td>Instructional silent reading rate slower than independent silent reading rate, but the frustrational silent reading rate was faster than the independent silent reading rate</td>
<td>15%</td>
</tr>
</tbody>
</table>
thirty-two per cent of the children had unpredictable patterns during silent reading.

The largest percentages showed that the children tended to read more slowly as the difficulty of the material increased. The second largest single group of percentages showed that about one-fourth of the children tended to read more quickly as the material became more difficult. The rest of the children had rates that were unpredictable in that one level was faster than the independent level rate and the other was slower than the independent level rate. The tables suggested which patterns were more prevalent, but they did not offer any definite evidence.

Comparison of silent and oral reading rates with rates established by McCracken and Harris. The last analysis involved a comparison of the silent and oral reading rates for fifty-seven of the children with the rates established by McCracken and Harris. Three children had instructional levels below the informal reading inventory. The rates determined for the sample included oral and silent reading rates. The rate of reading for each child's informal reading inventory instructional level was used. The rates were grouped by book levels and the average oral and silent reading rates were obtained for each book level in the informal reading inventory. The average rates for
the fifty-seven children in the sample are given in the next table.

**TABLE 20**

**ORAL AND SILENT READING RATES ESTABLISHED BY FIFTY-SEVEN CHILDREN IN THE SAMPLE**

<table>
<thead>
<tr>
<th>Book Level</th>
<th>Oral</th>
<th>Silent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Primer-1&lt;sup&gt;2&lt;/sup&gt;</td>
<td>63</td>
<td>70</td>
</tr>
<tr>
<td>2&lt;sup&gt;1&lt;/sup&gt; and 2&lt;sup&gt;2&lt;/sup&gt;</td>
<td>110</td>
<td>123</td>
</tr>
<tr>
<td>3&lt;sup&gt;1&lt;/sup&gt; and 3&lt;sup&gt;2&lt;/sup&gt;</td>
<td>100</td>
<td>135</td>
</tr>
<tr>
<td>4</td>
<td>128</td>
<td>170</td>
</tr>
<tr>
<td>5</td>
<td>129</td>
<td>196</td>
</tr>
<tr>
<td>6</td>
<td>160</td>
<td>185</td>
</tr>
<tr>
<td>7 (No rates from sample)</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>8</td>
<td>175</td>
<td>223</td>
</tr>
</tbody>
</table>

The table on the following page gives the oral and silent reading rates established by the sample, McCracken, and Harris. The rates suggested by McCracken seemed to be "high," but his oral rates were three to forty words per minute slower than the averages established by the sample. The sample's rates on the silent reading tended to be faster than McCracken's silent reading rates for grades one through five. The rates of the children reading at the sixth and eighth grade levels tended to be slower than
TABLE 21
THE ORAL AND SILENT READING RATES ESTABLISHED BY
THE SAMPLE OF FIFTY-SEVEN CHILDREN,
McCRAKEN, AND HARRIS

<table>
<thead>
<tr>
<th>Book Level</th>
<th>Oral Sample</th>
<th>McCracken</th>
<th>Silent Sample</th>
<th>McCracken</th>
<th>Harris</th>
</tr>
</thead>
<tbody>
<tr>
<td>Primer-1(^2)</td>
<td>63</td>
<td>60</td>
<td>70</td>
<td>60</td>
<td>80</td>
</tr>
<tr>
<td>2(^1) and 2(^2)</td>
<td>110</td>
<td>70</td>
<td>123</td>
<td>70</td>
<td>115</td>
</tr>
<tr>
<td>3(^1) and 3(^2)</td>
<td>100</td>
<td>90</td>
<td>135</td>
<td>120</td>
<td>138</td>
</tr>
<tr>
<td>4</td>
<td>128</td>
<td>120</td>
<td>170</td>
<td>150</td>
<td>158</td>
</tr>
<tr>
<td>5</td>
<td>129</td>
<td>120</td>
<td>196</td>
<td>170</td>
<td>173</td>
</tr>
<tr>
<td>6</td>
<td>160</td>
<td>150</td>
<td>185</td>
<td>245</td>
<td>185</td>
</tr>
<tr>
<td>7</td>
<td>-</td>
<td>150</td>
<td>-</td>
<td>300</td>
<td>195</td>
</tr>
<tr>
<td>8</td>
<td>175</td>
<td>-</td>
<td>223</td>
<td>-</td>
<td>204</td>
</tr>
</tbody>
</table>

The rates for silent reading suggested by Harris were comparable with the rates based on the sample. The rate for the primer through first reader for the sample was the only rate that was slower than the rates given by Harris. The rest of the rates given by Harris were the same or below those rates established by the sample.

The tables indicated that McCracken's rates could safely be used by the classroom teacher. The rates given by Harris were also acceptable for silent reading.
McCraken's minimum rates appeared to be practical rates that children could attain, and these rates were established on a much larger sample. Teachers could use both tables of suggested rates to find children who may have reading problems and require more testing.

V. SUMMARY OF THE ANALYSIS OF DATA

The analysis of the data included the following factors: (1) a comparison of the teacher assigned level to the instructional level as determined by the informal reading inventory, (2) a comparison of the independent, instructional, and frustration levels of the informal reading inventory and the cloze procedure, and (3) a discussion of the students' rates of silent and oral reading. The conclusions about the data presented in this chapter are given in the next chapter.
CHAPTER V

CONCLUSIONS AND RECOMMENDATIONS

I. CONCLUSIONS

It is very difficult to answer the question, "Is Johnny in the right book and reading group?", but the teacher must realize that it is possible, necessary, and one of his primary responsibilities to answer the question.

The sixty children in the sample emphasized the wide range of abilities that were found in every classroom. The results of the study also indicated the weaknesses of the traditional methods for determining children's reading levels. Based on the analysis of data, the following conclusions were drawn about the study:

1. Many children in the sample were assigned to reading levels above their instructional level as determined by the informal reading inventory. The methods used to place children in reading groups were inaccurate.

2. There was a high positive correlation between the cloze comprehension test levels and the informal reading inventory levels. The cloze test and the informal reading inventory measure the same reading comprehension skills.

3. The informal reading inventory levels and the cloze procedure levels were approximately one-half grade level apart. The teacher can shift a cloze level down by a half grade level and obtain a better approximation to the informal reading inventory levels.

4. There were no consistent patterns in the oral and silent reading rates among the children reading the informal reading inventory.
5. The oral and silent reading rates of the sample corresponded to those rates established by McCracken and Harris. The rates given by Harris and McCracken can be used by the classroom teacher to find children who are reading too slowly.

II. DISCUSSION OF CLASSROOM SITUATIONS

The following classroom situations were observed during the study of the informal reading inventory, the cloze procedure, and the rate of reading. The situations were not a predicted objective of the study because they were only observations made during the study.

Only one teacher knew about the informal reading inventory. Another teacher mentioned that the results of standardized tests guided her teaching. Every teacher indicated each child's classroom reading level, and most of the teachers had correctly identified the "bright" and "slow" children. However, they were unaware of the degree of these classifications. A fifth grade girl was reading at the 3\(^2\) level because she was weak in reading, but she was frustrational at the primer level. Six of the seven teachers were hesitant to accept the results of the informal tests; they concluded that the children's scores were the result of an unfamiliar series of readers. The children with very high instructional levels were regarded as bright, but the teachers generally felt that they still needed instruction at a lower level.
To emphasize the need to determine a child's reading level, anecdotes about children in the sample are given. One second grade girl, frustrational at the primer level, was interesting to test in that she tried to avoid the reading situation by procrastinating. This child had a pleasing personality and had convinced her first grade teacher that she was an excellent reader. The first grade teacher had the child in the "top group" and considered the child to be an excellent reader in an easy 2\(^1\) book. The second grade teacher also had the child reading at the 2\(^1\) level, but she noted that the child was an unsatisfactory reader at this level. The little girl's mother was a remedial reading teacher, but she felt that she could not help the child because of the tension involved in the sessions they had had together.

A third grade boy was deserted by his father and mother when he was a baby; he lived with an aunt and uncle. The teacher said that the boy was very interested in many subjects. This little boy was independent at the 5\(^1\) level, instructional at the 6\(^2\) level, and frustrational at the seventh reader level on the informal reading inventory. This child could read any word that he was shown, but he had trouble with comprehension at the seventh grade level. He read at the 3\(^2\) level in his classroom; his teacher felt that he was developing needed skills at that level.
The third grade boy had a brother in the fourth grade who felt that his parents had not wanted him. He also performed at the same levels as his younger brother. He was very surprised to find out that he could read at the sixth grade level. The standardized reading tests had placed him at the third grade level. He told his teacher that he disliked the standardized tests, and he did not care how well he ranked on them. This boy was reading at the fourth grade level in his class; his teacher felt that he would not try if he were put in a more advanced book.

II. RECOMMENDATIONS

Recommendations for the classroom. The teacher can prepare an informal reading inventory from any series of books. The test should begin at the lowest pre-primer level because there are many children who will read at this level. A few will be non-readers. To check the level of the selections for the informal reading inventory and cloze procedure, the teacher should use a readability formula.

The teacher can write comprehension questions for the informal reading inventory as well as questions to be used with daily reading exercises by using the four types of reading questions. The teacher can help children learn to think, not memorize. In conjunction with questions to check comprehension, the teacher can use a story that is one-half
grade level below the child's instructional level and apply the cloze procedure. The cloze technique can also be applied in science, social studies, health, and language arts. The teacher can determine if children will be successful in a given book. Children can also be taught comprehension skills by using cloze procedure as the center for discussion.

While the teacher is having children read silently or orally during the various group reading periods, he can easily time their reading. McCracken's rates should be used as the minimum level for determining if a child needs help in reading. After the second grade reading level, the teacher should help children develop faster silent reading abilities. If the split in the oral and silent reading rates does not occur, the teacher should help the child break any bad habits that are slowing him down during silent reading.

The informal reading inventory should also be used to determine the child's strengths and weaknesses; these are especially evident during oral reading. The teacher must develop a satisfactory method for recording oral reading errors and the method must be uniform so the child's progress can be continually analyzed.

In conjunction with the comparison of the results of the informal reading inventory with the teacher assigned level, the cloze procedure, and the rate of reading, it is recommended that the classroom teacher do the following:

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1. Use the informal reading inventory to determine each child's independent, instructional, and frustration levels and re-evaluate the findings.

2. Use the cloze procedure at a level that is one-half grade level below the child's instructional level to evaluate comprehension skills.

3. Use the rate of silent and oral reading to find children who need additional help in reading.

Every child should be given the opportunity to read at a level at which he can perform satisfactorily. He should be allowed to read at this level regardless of his age or the grade to which he is assigned. The teacher has a responsibility to find this level, accept the child and his level, and help him develop the necessary skills beyond this level.

Recommendations for further research. In further studies of the informal reading inventory, the cloze procedure, and the rate of reading, it is suggested that the cloze tests be administered on the basis of a child's instructional level as determined by the informal reading inventory. It is also suggested that the oral reading and oral answers to questions be recorded on a tape recorder. The comparison of results on the informal reading inventory, the cloze procedure, and the rate of reading should involve a comparison of English speaking children and bi-lingual children. It is assumed that the cloze test results and the reading rates would differ.

The informal tests could also be administered in conjunction with intelligence tests and standardized reading
tests. The informal reading inventory should be evaluated by two examiners for the same population to determine if the scoring of the oral reading and comprehension questions was uniform. There are many other possibilities for using the informal reading inventory, the cloze procedure, and the rate of silent and oral reading.
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C. ESSAYS AND ARTICLES IN COLLECTIONS


D. UNPUBLISHED MATERIALS


INFORMAL READING INVENTORY

Name__________ Age______ Grade______ Date______

A. Word Recognition Test:

Book Level- Number Correct-

_____ _______

_____ _______

_____ _______

_____ _______

B. Estimated Level: Accuracy (%):

Word Recognition Comprehension

Independent level-

Instructional level-

Frustration level-

C. Teacher Assigned Level:

D. Rate: (Expressed in words per minute—wpm)

Level: Oral- wpm; Silent- wpm

Level: Oral- wpm; Silent- wpm

Level: Oral- wpm; Silent- wpm

E. Cloze Procedure Levels:

Test: ______ Level: ______

Test: ______ Level: ______

Test: ______ Level: ______

F. Physical Symptoms of Reading Difficulty:

G. Comments:
Many Surprises

Oral (97 words) pp. 90-91

This is a story about three children and their wagon ride.

Billy saw a clown.

He said, "Look at the funny man.
He is a clown.
Look at his funny mouth.
He has funny feet, too."

The clown saw all the children.
"See my goat," he said to them.
"Do you want to go for a ride?"
Then get into the wagon."

"Will the goat run?" asked Jane.
"Will it run fast?"
"No," said the clown.
"The goat will not run too fast.
He will give you a good ride."

Jane and Ann got into the wagon.
"We are ready now," said Jane.
"Good-by, Billy.
Here we go!"

Questions: (Continued)

4. Who did the girls leave behind? (Billy)
5. Why did Billy let the girls go first?

Word Recognition:
Errors: ______
Accuracy: ______

Comprehension:
Errors: ______
Accuracy: ______

Rate:
_____ words per minute

Level: ____________

Questions:

1. What was funny about the clown? (mouth and feet)
2. Who took the first ride? (Jane and Ann)
3. Did Jane want to go fast? (No) Why not?
SILENT (83 words) pp. 92-93

Now you will read about Billy's ride.

Billy wanted to ride, too.
"I want to go fast," he said.

"The goat will run fast,"
said the clown.

"His little feet can go fast.
Go, little goat.
Give Billy a fast ride.
Do not fall out, Billy.
The goat may surprise you."

"Good-by," said Billy.
Away went the goat and the wagon.

The goat ran and ran.
His little feet went fast.
Up, up, up went the goat.
"Stop, little goat, stop!"
said Billy.
"Look out!
You will throw me out!"

QUESTIONS: (continued)

4. What did Billy tell the goat to do?
   (stop)

5. What was Billy afraid the goat would do? (throw him out)

COMPREHENSION:

Errors: ______
Accuracy: ______

Rate: ______ words per minute
Level: __________
This story is about a funny animal show.

"A circus has many animals,"
said Lee.

"You will see the animals now.
They will come into the tent.
After you see them, you can guess their names."

"Here they come," said Betty.

"I can see each of the silly animals!"

A funny little donkey marched into the tent.
He kicked up his feet.

"Look out!" said a boy.

"That donkey will hit the tent."

"He is like the donkey who came to school one day," said a girl.

"His name was Clip-Clop."
One of the boys laughed.

"I know it is not Clip-Clop," he said.

"It looks like Billy."

Questions:
1. Where were the animals going? (into the tent)
2. What did the children do after they saw the animals? (guess their names)
3. What was the first animal? (donkey)
4. How did the donkey walk into the tent? (marched)
5. What was the boy afraid the donkey would do? (kick the tent)

Word Recognition:
Errors:_______
Accuracy:_______

Comprehension:
Rate:_______ words per minute  Errors:_______ Accuracy:_______
Silent (107 words) pp. 69-70

Now you can read about the other animals in the circus.

A little rabbit came in.
It ran around and around.
Betty said, "That little rabbit is about as big as Ann.
I know who that is.
I will give this apple to the rabbit.
Come over here, little rabbit."
The rabbit ran to get the apple.

In came a big animal.
It had funny ears.
It had a long tail.
"Look at its big feet," said one of the girls.
"See its long trunk.
I know what animal that is.
It is a funny elephant."
"When it comes over here, I will give it hay," said a boy.
"No," said the elephant.
"I want some peanuts."

Questions:
1. What other animals were in the circus? (rabbit, elephant)
2. What did the rabbit get? (apple)
3. What animal had funny ears, a long tail, and big feet? (the elephant)
4. What is the word for the elephant's nose? (trunk)
5. What did the elephant want to eat? (peanuts)

Comprehension:
Errors:_____
Accuracy:_____

Rate:
_____words per minute

Level:____________
Have you ever planned a party? This story will tell about a party.

The children wanted to have an animal party.

"Do you have plans for it?" asked Miss Day.

Ann said, "We could dress like animals."

"That would be fun," said Miss Day.

"There are many things to do before we have a party.

"We must plan how we want things to look in here.

"We must plan games."

Billy said, "We want something to eat, too."

"You want to be animals at the party," said Miss Day.

"You can make pictures of what you want to be."

"We can put the pictures up," said Sally.

"We can see what animal each one wants to be."
"I will make a big rooster,"
said Jack.
"I will be a rooster at the party."
Miss Day said, "Make your plans
first so you will know what to do."

Questions:
1. What kind of party did the children want? (animal party)
2. What were the children going to do at the party? (play games and eat)
3. Why were the children going to make pictures of what they wanted to be? (find out what each child was going to be)
4. Jack was going to be an animal that crows in the morning; what was he going to be? (rooster)
5. Why did Miss Day want the children to make plans? (so they would know what to do)

Word Recognition:
Errors:_________
Accuracy:_______

Comprehension:
Errors:_________
Accuracy:_______

Rate:
________words per minute

Level:_________________
Now you can read about the rest of the plans for the party.

The children made plans for games.
They talked about how to dress.
"We know songs about animals"
said Sally.
"We can sing them."
"We must have lunch at the party,"
said Don.
"I will make cookies," said Miss Day.
"I can cut the cookies so they
will look like animals.
"We can drink milk."
"Oh, that will be a good lunch,"
said Billy.
"I like animal cookies."

The children were making things
for their party.
They made pictures of the way
they would dress.
They cut paper faces.
They painted eyes and noses and
mouths.
Don cut holes in the paper bag.
The holes were for eyes.
Miss Day helped Don make ears on the bag.
Then Don got some paint.
He made a nose and a mouth.
"I will make a tail," he said.
"Then I can run around."

"Shall I leave my things here?"
Miss Day said, "Leave them here."
"Rest when you go home."
"Then you will be ready for a good time at the party."

Questions:

1. What meal were the children going to eat? (lunch)
2. How did the children make the masks? (cut paper faces, painted eyes, noses, and mouths)
3. What did Don make so he could run around? (tail)
4. Why were the children to leave their masks at school? (be safe, etc.)
5. What did Miss Day want the children to do so they would be ready for the party? (rest)

Comprehension:
Errors: ________
Accuracy: ________

Rate: _______ words per minute
Level: ________________
Do you have a wagon? This is a story about Jack's wagon.

Jack took out his express wagon and went for a walk. He went past the kitchen. Then he went through the yard.

Down the street he walked until he went past a school. Then Jack walked up a hill and down a hill.

Jack walked and walked. At last he came to a park.

At the park Jack saw a gray kitten. "Mew, mew," said the little kitten, and she rubbed against Jack's leg.

Jack thought she was trying to say, "Please give me a ride."

So Jack put the pretty gray kitty in his express wagon. Then away he started. He walked down the hill. He walked up another hill. By the school he went and into his own yard. He walked past the kitchen and went around to the front of the house.

Questions:
1. What is an "express wagon"?
2. Where was Jack going? (for a walk)
3. How did Jack know the kitten wanted a ride? (seemed to ask)
4. Why did Jack give the kitten a ride?
5. When Jack went past the kitchen, where did he go? (front of house)

Word Recognition:
Errors: _________
Accuracy: _________

Comprehension:
Errors: _________
Accuracy: _________

Rate: _______ words per minute
Silent (138 words) pp. 88-89

Now you can read about the other animal that Jack found.

There Jack saw a small brown dog.

"Bow wow, bow wow," said the little dog.

Jack thought that the dog was trying to say, "Please give me a ride."

So Jack picked up the dog and put it into the express wagon.

Then something happened.

The kitty put up her back and put out her claws. Scratch, scratch!
The dog did not like those claws.

"Grrr, grrr, grrr," the dog said.
"S-s-s-s-, s-s-s-s-," said the kitty.
"Grrr, grrr," said the brown dog.
"F-f-f-t, f-f-f-t," said the kitty, and she scratched with her claws again.

Before Jack could do anything at all, out jumped the small brown dog. Then out jumped the gray kitty, and away they went as fast as their legs could carry them.

Jack put his express wagon away.
After that he did not want to walk
any more that day.

Questions:
1. What happened to the dog and the cat? (started to fight)
2. What did the kitten do to the dog? (scratched)
3. What did the dog not like about the kitten? (claws that scratched)
4. Why did the animals jump out of the express wagon? (did not like being together)
5. Why did Jack put the express wagon away? (did not want to walk any more)

Comprehension:
Errors:_______
Accuracy:______

Rate:
_______ words per minute

Level: _______________
Did you ever wonder how the early settlers built their cabins? This story tells how they built a part of their house.

There was no kitchen in the new home. The fireplace, with its big chimney, was built at one end of the cabin. It was very large because in pioneer days the fireplace was an important place in the home. The fireplace gave heat for cold days. It gave light on winter nights. Food was cooked in it.

There were no bricks for fireplaces. The bottom of the fireplace was made of clay. Father and Uncle William laid the clay down where they wanted the hearth to be. Then they pounded the clay until the hearth was as smooth and hard as if it had been made of bricks.

"When a fire has burned for a day or two, this hearth will be just as hard as stone," said Father.

Questions:
1. What are "pioneer days"? (days of early settlers)
2. Why was the fireplace so important? (provided heat, light)
3. What was the "hearth"? (place where fire was set)
4. What would make the hearth "as hard as stone"? (fire)
Now you will read about building the chimney.

Because there were no bricks to use, the chimney was built of long sticks. These sticks were plastered together. Plaster for the chimney was made of clay.

Into the clay went fuzz from cattails that grew near the cabin. The fuzz was mixed well with the clay. The cattail fuzz was important because it made the hard clay so strong it would not crack.

All the family helped to build the fireplace and the chimney. The children carried up cattails that grew on the bank of the river. They pulled off the brown fuzz. Mother mixed it with clay.

Father and Uncle William laid the sticks and plastered them with the "cat-and-clay" plaster. Such a chimney was called a cat-and-clay chimney because it was plastered with clay and cattail fuzz.

"The fireplace is almost big enough for a room," said Sara. "Father and Uncle William can walk right into it."

"It will burn big logs," said Allen. "We
do not need to cut the wood small."

"Hurry and build a nice fire," said Ann.

"I can hardly wait to see this fireplace with a fire on the hearth."

Questions:
1. What was used to make the chimney? (sticks)
2. What was the "plaster"? (clay that held the sticks together)
3. Where did they get the fuzz for the clay? (cattails on the river bank)
4. Why was the plaster called "cat-and-clay"? (made from cattail fuzz and clay)
5. Why were big logs better than smaller ones? (easier to cut, last longer)

Comprehension:
Errors: _________
Accuracy: _________

Rate:
_______ words per minute

Level: _________
This is a story about an unusual type of volcano.

The river came tumbling along the rocks and then fell a long way to other rocks below. It splashed against the rocks so hard that thousands of tiny drops of water were tossed into the air. That spray of tiny drops looked like a white cloud in the canyon.

Before they left Yellowstone Falls, the boys took several pictures. Then on they went to see the mud volcano which was only a short drive from the falls.

Jim and Butch were surprised when they saw that the mud volcano was not on top of a mountain. They had seen pictures of mountain volcanoes. They had read about volcanoes, too, so they knew that heat and water inside the earth sometimes made steam. When there was too much steam for the earth to hold, the ground opened and the steam shot out. Sometimes hot rock came out with the steam.

Questions:
1. Where was the water fall? (Yellowstone)
Questions: (Continued)

2. Why did the water spray look like a white cloud in the canyon? (tiny drops of water in the air)

3. What is a "mud volcano"? (place in the ground where steam comes out)

4. What kind of volcano had the boys expected to see? (mountain volcano)

5. What is steam? (vapor from heated water)

Word Recognition:
Errors: _______
Accuracy: _______

Comprehension:
Errors: _______
Accuracy: _______

Rate:
_______ words per minute

Level: ______________
The next part of the story tells about the other things that the boys see.

Mud geysers were close to the ground. The heat inside kept pushing up gray mud.

"Why, that popping mud looks just like the breakfast food when Mother is cooking it," said Jim.

"Now that you have seen the popping mud, we will go to see the Dragon's Mouth," said Mr. Wise.

"Oh, that sounds exciting," said Butch. "We will have to look out for the dragon."

The Dragon's Mouth was a pool of water that ran back under some rocks. The hot water of the pool had sprayed those rocks for many years. The tiny drops of water had worn away part of the rock. What was left looked like a very large mouth.

Every few seconds hot water shot out of the pool. Jim thought the spray of water looked like the dragon's tongue.

"I guess it is a very hot tongue, too," he said. "I wouldn't want that tongue to get near me—not a tongue like that."
Questions:
1. What is a "mud geyser"? (mud pushed up by heat)
2. What did the "mud geyser look like? (breakfast food)
3. Why did Butch say to "look out for the dragon"? (kidding about Dragon's Mouth)
4. What had "made" the Dragon's Mouth? (spray of hot water had worn away rocks)
5. What did the hot water spray look like? (dragon's tongue)

Comprehension:
Errors: _______
Accuracy: _______

Rate:
_______ words per minute

Level: ________________
This is a story about a man who lived a long time ago.

It was just about one thousand years ago that a boy with red hair started out on a journey with his father and a crew of twelve men. The journey was made in a short ship. The middle part of the ship was open and was used for both the goods and crew.

This little ship was made of wood. There was a large sail which caught the wind and carried the ship along. The crew steered by watching the sun and stars.

When the ship left Norway, it carried the food the men would need for the journey. There were dried fish and meat on board. There were tanks of water, too, and the cows on board gave milk to drink.

The boy on board was named Eric. Because of the color of his hair, this boy often was called Eric, the Red.

Questions:

1. When did this story take place? (about one thousand years ago)

2. What powered the ship? (wind in the sails)

3. How did the crew know which way to steer the ship? (watched the stars and sun)

4. What is Norway? (a country)

5. What did the crew use for food on the trip? (fish, meat, and milk)
The next part of the story tells about Eric.

Eric, like many other people of Norway at that time, knew how to live without the comforts that most people have at the present time. Often he must have been cold for there could be no fire on the little ship. Often he must have wished for warm food, such as he had always had at his home. Eric must have enjoyed the journey, for in later years he sailed the seas to the north.

At last the small ship reached Iceland, and the men lived there for some time. Then when Eric grew older, his father thought that the boy should return to Norway for more education.

After a few years in his homeland, Eric went back to Iceland. By this time Eric had a wife, he lived on a fine farm in Iceland, but he was not happy there. He moved south to Hawk's Valley and lived a pioneer life.

Questions:
1. What "comforts" do we have that Eric did not have? (heater, stove, etc.)
2. What is Iceland? (country)
3. Where did Eric later travel? (to the north or Norway)
4. Why did Eric return to Norway? (for more education)
Fourth Reader-Level One Meeting New Friends

Questions: (Continued)

5. Where did Eric move to when he returned to Iceland? (south or Hawk Valley)

Comprehension: (Silent)
Errors:
Accuracy:
Rate:
____ words per minute
Level:

Word Recognition:
Errors:
Accuracy:

Comprehension: (Oral)
Errors:
Accuracy:
Rate:
____ words per minute
Level:
Have you seen animal tracks in the snow? This story is about reading animal tracks.

Many forest rangers learn to "read the ground."

Often a ranger finds records showing which animal has crossed his trail. He does this by examining and recognizing tracks made by different animals.

Many boys and girls can read tracks, too. They know that the tracks of a dog's feet overlap and that a dog drags its toes. One can even hear the patter of its toes when a dog walks on a floor or sidewalk.

Though a cat has claws, it makes no noise when it walks. Its claws are pulled in under the soft pads on the cat's feet. The tracks made by a cat are neat and round. The lynx has claws, too. The lynx makes a four-toed mark, but the claws do not show. The owl, also, leaves a four-toed track without showing its claws.

Questions:
1. Who learn to "read the ground"? (forest rangers)
2. What do they do when they "examine tracks"? (look at them)
3. What animal "overlaps" and "drags" its feet? (dog)
4. What animals do not show their claws in their tracks? (cat, lynx, owl)
5. Why don't the claws show? (claws are pulled under pads)
Silent (125 words) p 358

You can read the next page and find out about more tracks.

Some animals have a lively motion when they walk. They make neat, straight lines of tracks. Others shuffle as they walk, and the tracks are on a slanted line. The fox is one animal that makes a straight line of tracks that never overlap. The skunk shuffles along and makes a slant line.

If a fox were to follow a skunk through the woods, the tracks would show the straight line of fox tracks behind the skunk's uneven shuffles.

The rabbit makes a track that is different from most of the others. When running, this animal puts down first one forefoot and then the other. Then, with a quick motion, the hind feet move up in front of the forefeet. Rabbit tracks look like this:

Questions:
1. What is meant by "shuffle"? (dragging, uneven movement)
2. What animal makes a straight line of tracks that never overlap? (fox)
3. How does the fox know which tracks to follow? (tracks or smell)
4. Which feet does the rabbit move together? (hind feet)
5. Which feet are the "forefeet"? (front feet)

Comprehension: Level: ___________
Errors: _____ Accuracy: _____ Rate: ____ words per minute
This is a story about Thomas Edison.

There was not much for a six-year-old boy to do in Milan, Ohio, on a lazy spring day in 1853. At least, young Tom Edison did not know what to do. He heard a boat coming up the canal that was behind his home. He knew that the boat would soon be loading wheat which was to be shipped east to the mills. Tom started to run to the canal, but just then he noticed a goose on her nest.

When the goose saw the boy, she made a hissing sound. This interested Tom, and he stopped. As he watched, the goose got off the nest. Tom saw that the nest was filled with eggs. Suddenly an egg shell broke open and a baby goose started to come out of it. Tom forgot all about the great ship that was being loaded. He stayed to watch.

Questions:
1. In what year did this story take place? (1853)
2. What is a "canal"? (a water-way for boats)
3. What was shipped to the mills? (wheat)
4. Why did the goose hiss? (to protect her eggs)
5. What did Tom watch? (nest filled with eggs)

Word Recognition:

Errors: _____ Accuracy: _____
Rate: _____ words per minute

Comprehension:

Errors: _____ Accuracy: _____
Level: _____
Silent (147 words) p 38

Now you will read about Edison’s experience with the eggs.

A few days later Tom did not come home in time for dinner. His father found him in the barn, sitting on a nest filled with eggs. Tom was trying to hatch them, but all the eggs had broken. This was one of Thomas A. Edison’s first experiments. Even though this one failed, Edison became one of the greatest inventors of all time.

The next year the Edison family moved to a farm near Port Huron, Michigan. For a short time Tom missed his old home, but soon he was busy with farm work. He grew vegetables and sold them in Port Huron. Tom became interested in chemicals. He made a laboratory in the basement of his home. Most of the money he made from selling vegetables was used to buy chemicals for his laboratory. He tried many experiments, and from them he learned much about chemicals.

Questions:
1. How were the eggs broken? (Tom tried to hatch them)
2. What is an "experiment"? (a test of something)
3. What did Tom Edison later become? (a great inventor)
4. What did Tom do with the "vegetable money"? (buy chemicals)
5. Where did Tom use the chemicals? (in a laboratory)
This story is about some of the problems a farmer has to consider before he buys land.

The Trent family lived in a large city where Mr. Trent was in the grocery business. But the Trents wanted their children to grow up in the country where there would be ample room to play and where they would learn about farm life.

Mr. and Mrs. Trent decided upon a fine part of the country in which to make a new home. Then they began to read and study about soil and crops so they would be good farmers.

Thomas Trent knew that most of the plant food used by growing crops was to be found in topsoil. He was amazed to learn that, in many places, topsoil is exceedingly shallow—sometimes it is only six inches deep. He was even more amazed when he learned that if one inch of the topsoil were washed from a field there would be less production. In a cornfield there would be a loss in production of from five to ten bushels of corn per acre.

Questions:

1. What business was Mr. Trent in? (grocery)

2. Why did the Trents want their children to grow up in the country? (room to play; learn about farm life)

3. What is "topsoil"? (soil which contains most of plant food)
Questions: (Continued)

4. Why is topsoil so thin in places? (washed away)

5. What is meant by "exceedingly shallow"? (only six inches deep)

Word Recognition:

Errors: _______

Accuracy: _______

Comprehension:

Errors: _______

Accuracy: _______

Rate:

_____ words per minute

Level: ______________
The next part of the story shows the importance of topsoil to the farmer.

"Farmers should be more careful about letting their lands wash away," Mrs. Trent said. "One scarcely sees a farm that does not show erosion by water."

"Erosion robs the land of topsoil," Mr. Trent agreed. "It takes years to build up only one inch of topsoil. Yet there are some farmers who seem to think nothing of having lost an inch of topsoil in one rainstorm.

"Suppose that corn is worth a dollar a bushel. Now let's suppose a field is worth sixty dollars an acre because it yields sixty bushels of corn to an acre. Suppose I am about to buy that farm. A few days before I go to buy it, a rain washes away one inch of topsoil. Then the field would yield between five and ten bushels less corn on each acre.

Questions:
1. What does "scarcely" mean? (seldom, not very often)
2. How long does it take to build up topsoil? (years)
3. Why does erosion harm the soil? (takes away the things that plants need to grow)
Questions:  (Continued)

4. If one inch of topsoil was lost on an acre, what would happen to the yield? (five to ten bushels less for each acre)

5. Why should the farmer try to prevent the loss of topsoil? (to get more yield from his crops)

Comprehension:

Errors:_______

Accuracy:_______

Rate:

_______ words per minute

Level:_________________
This story is about the Barker family and their tour of a museum.

Mr. Barker drove to the museum. He knew Pam and Bob would like the exhibits.

"There will not be time to see all the exhibits," said Mrs. Barker. "First we can see the exhibit on pioneer life. You will see many kinds of Indian homes.

"But you came to see Dutch things. They are upstairs in the museum. The things came from the Netherlands. You will think you are in the Holland across the sea."

When Pam went upstairs, she exclaimed, "Oh, oh! There's a Dutch cottage up here! I see a half door. It is something like the one in the Rembrandt painting at the art gallery."

"When you get closer to that exhibit, you will see that it isn't a cottage," Mr. Barker said. "The museum has set up two Dutch rooms. All the things in them came from the Netherlands."

Questions:

1. What is a museum? (place where historical things are kept)
Questions: (Continued)

2. Where is Holland? (across the sea or ocean)

3. What did Pam find upstairs? (Dutch cottage)

4. Why were there two Dutch rooms instead of a cottage? (easier to assemble)

5. Where did the things in the cottage come from? (the Netherlands)

Word Recognition:
Errors: 
Accuracy: 

Comprehension:
Errors: 
Accuracy: 

Rate:
_____ words per minute

Level:
The next part of the story tells what things the children found in the museum.

There were many interesting things to see. Pam and Bob scarcely knew what to look at first. In each room there was a fireplace of blue and white tiles. A copper teakettle hung above each hearth. There were copper and brass pans above the hearth, too.

"It must have been work to keep all those brass and copper pans shined," said Pam. "There are brass candlesticks, too."

There was a cradle made of metal rods. There were blue and white plates on a ledge along the wall.

"The Dutch are famous for that china," said Mrs. Barker. "I have some Dutch china in Chicago. My family brought it here."

There was a hole-in-the-wall bed. It looked like a cupboard. The doors were left open at night. There were curtains across the opening.

Questions:
1. What is a hearth? (section of fireplace for fire)
2. What metals were used to make the pans and teakettle? (copper and brass)
Sixth Reader-Level One  Stories To Remember

(Silent Continued)

3. How did the brass and copper pans get dirty? (over open fire)

4. What is a "hole-in-the-wall" bed? (a cupboard bed)

5. What are the Dutch famous for? (china)

Comprehension:
Errors:_______
Accuracy:_______

Rate:
_______ words per minute

Level:____________
Would like to have an oil well? In this story, Dan Hull finds out about oil wells.

"How would you like to have an oil well on our ranch?" Mr. Hull asked his son.

"Fine," said Dan. "But I am afraid that we'll never have one."

"Don't be too sure," said Mr. Hull. "I've just given a lease to Mr. Bedloe, here. He owns an oil company."

"You've leased our land!" exclaimed Dan. "You've rented it to an oil company!"

"An oil company does not lease the land," said Mr. Bedloe. "An oil company leases the right to drill for oil. While we have the lease, we pay rent on each acre of land. A lease gives us a right to drill for oil on your ranch."

"If you find oil on leased land, does the oil belong to you?" Dan asked.

"The owner of the land gets one-eighth of the oil and gas produced," replied Mr. Bedloe. "The rest goes to the owner of the lease."

Questions:
1. Where did Dan Hull live? (on a ranch)
Questions: (Continued)

2. What is a lease? (right to drill for oil)

3. Why does the oil company pay rent? (for the right to drill for oil)

4. What are the products of a well? (oil and gas)

5. How much of this does the owner of the land get? (one-eighth)

Word Recognition:

Errors: ________

Accuracy: ________

Comprehension:

Errors: ________

Accuracy: ________

Rate:

_____ words per minute

Level: ______________
In the next section, Dan learns about the history of oil.

One day an oil company geologist came to see the ranch. Dan went with him. He told Dan that a geologist studies layers of rock and soil. He is able to tell where oil might be found.

"How did oil get into the ground?" Dan asked the geologist.

Mr. Pike explained that petroleum is rock oil. No one knows how it was formed.

"We know it was formed millions of years ago," said Mr. Pike. "More has been forming every year since it was discovered.

"Many scientists think that petroleum was formed where there was a large amount of water. Animals drowned. Their bodies went down into the water and decayed. Plants died and decayed, also.

"Later on, there was a great pressure on these things. There was great heat, also. Oil formed. It did not stay in one place. It became mixed with gas and water. The gas and water were squeezed out."
Questions:
1. What does a geologist do? (studies layers of rock and oil)
2. When was the petroleum formed? (million of years ago)
3. What is petroleum? (rock oil)
4. How is oil still forming? (great heat and pressure on deposits)
5. What was squeezed out of the oil? (gas and water)

Comprehension:
Errors: ________
Accuracy: ________

Rate:
________ words per minute

Level: ________________
Do you like to read about animals? This is a story about a dog and a horse.

Slippy, the pony, actually was to blame for what was to happen that autumn day. He had always been too independent for his own good, and since his friendship with old Sounder, the ranch dog, had sprung up, he'd been a constant worry to Jesse Hunnicutt.

Slipstream, called Slippy for short, had been named for his speed. His hide was the color of running bronze. When in action, with mane flying, nostrils quivering, and wild of eye, his head might have been that of Pegasus, the winged horse. He was only a two-year-old, but already the pride of High Ranch. Some day, Jesse Hunnicutt believed, Slippy would be as good as any of the champion polo ponies he had raised.

There was nothing really bad about Slippy. He was just too full of ideas and pranks which walled him off from serious training. In his wide-browed skull, a cunning brain seemed bent on mischief—at least, so Jake Marden, the ranch foreman, claimed. Let a day dawn when a visiting buyer was to appear and Slippy would disappear up the mountain. As High Ranch was fenceless open range, there was little to be done about this, unless someone remembered to look Slippy in the barn.
Questions:
1. During what part of the year did the Story take place? (autumn)
2. Why was Slipstream given that name? (fast runner)
3. Who was Pegasus? (winged horse)
4. Why did Jake Marden think Slippy was mischievous? (ran away when buyers came)
5. Why did Jesse believe that Slippy would be a good polo pony? (pony was fast and cunning)

Word Recognition:
Errors: ______
Accuracy: ______

Comprehension:
Errors: ______
Accuracy: ______

Rate:
______ words per minute

Level: ____________
Silent (180 words) p 219

Now you will find out about the dog, old Sounder.

It was old Sounder who had really gotten Slippy into the habit of these disappearances. He was the special property of young Jesse, the fifteen-year-old son of Jesse Hunnicutt. A mixed breed of dog, only part mastiff, Sounder had a seamed and melancholy face, big bones, great lubberly paws, and the heart of a lion. No respecter of bounds or barriers was Sounder, but a privileged character who spent a great share of his days on the heights, tracking rabbit, fox or wild cat.

Slippy had met Sounder one day in spring far up among the Pinon pines. They had smelled noses and each had belonged specially to the other from then on. They had met often after that, up there in the peaks, far from the sounds and scents of the ranch. Sometimes the pair would remain away for two days and two nights. All summer Slippy fed and rolled in the grassy places between the peaks. Sounder dug for marmots on a nearby slope or tracked rabbits in the brush. Great days for them both.

Questions:
1. What is meant by "melancholy face"? (sad face)
2. When had Slippy met Sounder? (in the spring)
3. Why had Slippy and Sounder become such good friends? (liked freedom to roam around)
Questions: (Continued)

4. Why was Sounder called a "privileged character"?
   (spent days tracking animals)

5. What are "marmots"? (woodchucks or small animals)

Comprehension:

Errors:_______

Accuracy:_______

Rate:

_____ words per minute

Level:_____________
Have you ever dreamed of taking a trip to outer space?

The mechanical problems of space flight are being solved. Some of the human problems are harder to overcome than any others.

Scientists now have solved many of the problems of sending a rocket to outer space. When a rocket picks up enough speed, it can travel beyond the gravity of the earth. The rocket then becomes a satellite of the earth. This new satellite will circle the earth as the moon does. At the present time, rockets are being planned so that men may be sent to the moon and the planets.

Some scientists think a three-stage rocket would be the best way to get beyond the earth's gravity. A three-stage rocket has two boosters. These boosters fall away when the fuel in them has been used up. Some jet airplanes have boosters which give them quick take-offs.

Questions:

1. What space problems are harder to overcome? (human problems)

2. What is gravity? (pull of the earth)

3. What is a real satellite to the earth? (moon)

4. Why are boosters needed? (to get beyond earth's gravity)

5. What happens to the boosters? (fall away when fuel is gone)
Silent (180 words) pp. 137-138

Now you can read about the other things to expect during space flight.

Many rockets have been sent to outer space. But can a rocket trip be made comfortable for people? No one knows. The first trips may bring surprises to the people who make these flights.

Some of the human difficulties are met easily. The rocket cabin will be sealed, or "pressurized." This could be done in much the same way that the cabins of high-flying airplanes are pressurized. Oxygen will be carried, maybe in liquid form to save space. When the liquid oxygen is let out, it turns back to a gas. Except for carrying oxygen and having a pressurized cabin, space flight will be different from anything we have known.

At take-off, you are in the nose of your three-stage rocket ship. A button is pressed and your ship takes off. You have a feeling of pressure which grows and grows. It is the same feeling you get when you step hard on the gas pedal in your car, but in the rocket it is a thousand times greater. The force of acceleration is acting on you.

Questions:
1. What is a pressurized cabin? (sealed cabin)
Questions: (Continued)

2. Why would oxygen be carried in liquid form? (saves space)

3. Can a rocket trip be made comfortable for people? (why or why not)

4. What is the acceleration force? (pressure which grows and grows)

5. What is the acceleration of the rocket compared to? (stepping on the gas pedal)

Comprehension:
Errors: ______
Accuracy:_____

Rate:
______ words per minute

Level: ________________

Word Recognition: (Oral)
Errors: _______
Accuracy:_____

Comprehension: (Oral)
Errors: _______
Accuracy:_____

Rate:
______ words per minute

Level: ________________
APPENDIX B.

CLOZE TESTS
Three Little Monkeys

Once there were three _______ monkeys. They had funny _______. Their eyes were little _______ eyes. It was funny _______ to see them play.

_______ away where these little _______ lived there was no _______, no snow, no ice.
_______ was never cold. All _______ days were hot.
In _______ faraway woods there were _______, many trees. There were _______ trees and banana trees _______ many other kinds of _______.

The three little monkeys _______ always together. They played _______. They ate together. They _______ everything together just as _______ monkeys do.

The first _______ monkey would often swing _______ into a tree.

Then _______ second little monkey would _______ up into the tree _______ behind him. And the _______ little monkey would swing _______ into the tree right _______ the first and second _______ monkeys. They would all _______ and swing from the _______ of the tree, laughing _______ talking to one another.
Oscar's Airplane Ride

When Mr. Zabriski decided ________ go to
Los Angeles, ________ wanted to go with ________.
But Mr. Zabriski only ________ his head. "I'm sorry,"
_______ said, "but I can't ________ bothered with a
seal ________ this trip, not even ________ famous seal.
You must ________ here in New York. ________ have
secret work to ________.

Poor neglected Oscar! He ________ couldn't stay
in New ________ all alone! "We always ________
everywhere together," he said ________ himself. "I know
Mr. ________ doesn't mean to be ________.
The first
thing tomorrow, ________ talk him into taking ________
along. I need a ________!"

Then Oscar got into ________ bathtub and slept
until ________.

The next morning, when ________ seal climbed from
his ________, he found that his ________ had gone. In
a ________ minutes, he saw a ________ leaning against
a large ________--Oscar's favorite food. The ________
said: Dear Oscar:

I ________ bear to say good-by.

_______ am too unhappy about ________ you.
Take good care ________ yourself until I come
_______.

Your trainer--Zabriski
"Master of All Masters"

There was once a _______ who went to the _______ to hire herself out _______ a servant. Soon an _______ man in green pantaloons _______ up to her and _______ he would like to _______ her to work at _______ house.

"Very well," said _______ girl, and the two _______ toward his home.

"Now _______ my house," the old _______ said as they went _______, "we have our own _______ for things. You must _______ call me Master of _______ Masters."

"Yes, Master of _______ Masters," answered the girl.

_______ they got inside the _______ house, the old man _______ to a bed that _______ in the corner near _______ fireplace, and he asked, "_______ what would you call _______?"

"Why, bed or bunk _______ what ever you please, sir," _______ the girl.

"No," said _______ man. "That is my _______, and you must always _______ it that."

"Barnacle it _______ be, sir," answered the _______.
The Princess and the Glass Mountain

Once upon a time ________ was a king who ________ such a joy in ________ chase, that he knew ________ greater pleasure than hunting ________ beasts. Early and late ________ camped in the forest ________ hawk and hound, and ________ fortune always followed his ________. But it chanced one ________ that he could arouse ________ game, although he had ________ in every direction since ________. And then, when evening ________ coming on, and he ________ about to ride home, ________ saw a dwarf or ________ man running through the ________ before him.

The king ________ once spurred on his ________, rode after the dwarf, ________ him and he was ________ at his strange appearance; ________ he was small and ________, like a troll, and ________ hair was as stiff ________ bean straw. But no ________ what the king said ________ him, he would return ________ answer, nor say a ________ word one way or ________. This angered the king, ________ was already out of ________ because of his ill-success ________ the hunt, and he ________ his people to seize ________ wild man and guard ________ carefully lest he escape. ________

the king rode home.
Andy's Choice

Andy sat beside Red ________ Bob on a small ________ in the lake. All ________ wore swimming trunks. The ________ was so clear they ________ see the rocky bottom. ________ the lagoon the grandstand ________ with color and hummed ________ excitement. The crowd was ________, waiting for the next ________ in the Water Circus.

_______ his special platform on ________ island, the judge called ________ four teams swimming in ________ relay race. The boys ________ and hurried toward him.

_______ beyond the judge's stand ________ the Blue Bills, the ________, and the Eagles. Next ________ the Spartans with Red, ________, and Andy on the ________.

Andy was sure they ________ beat the Jesters and ________ Eagles, but he wasn't ________ sure about beating the ________ Bills--they were splendid ________.
Cutlass Island

"Well, I suppose while ________ stopped, before we get ________ to work, is as ________ a time as any ________ have a look at ________ fort," he declared, and ________ off in that direction ________ the lawn. The boys ________ to their feet, stacked ________ coffee mugs against a ________ trunk, and hurried after _________. Again the key ring ________ out, and Hurd selected ________ key as he walked. ________ boys caught up with ________ when he slowed down ________ a moment to take ________ of the sea, which ________ ruffling up now under ________ steadily freshening southwest breeze.

"_______ to kick a mite, _________," he remarked, and resumed ________ march on the fort.

_______ the padlock and chain ________ off, the heavy steel ________ swung outward easily. Inside, ________ fort was dark and ________.

"Wait'll I get us ________ light in here." Hurd ________ the shutters.