Comparison of two methods of teaching spelling to fifth grade pupils

Ida M. Ross
Atlanta University

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COMPARISON OF TWO METHODS OF TEACHING SPELLING TO
FIFTH GRADE PUPILS

A THESIS
SUBMITTED TO THE FACULTY OF THE SCHOOL OF EDUCATION, ATLANTA
UNIVERSITY, IN PARTIAL FULFILLMENT OF THE
REQUIREMENTS FOR THE DEGREE
OF MASTER OF ARTS

BY
IDA M. ROSS

SCHOOL OF EDUCATION
ATLANTA UNIVERSITY
AUGUST, 1962

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DEDICATION

to

My mother, husband, and children for their belief in me and inspiration given which motivated me to continue the research until it was completed.
ACKNOWLEDGEMENTS

For their consideration and cooperation, my sincere appreciation is given to Dr. Lynette Saine and Dr. Laurence E. Boyd for their generous counseling, helpful criticisms, and encouragement through the many stages of the research project.

Special thanks to the personnel of Area IV, Atlanta Public School System; my principal, Mrs. L. F. Brown, teachers and pupils of the Emma Clarissa Clement School, and friends.

I. M. R.
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CHAPTER I

INTRODUCTION

Rationale

Development in spelling and being able to write words and printed symbols had their origin many years ago in the past when man began to use pictures and other forms of objects to communicate and record events. As man continued communication in this form, he began to find new ways of communicating which developed into some form of spelling and writing of these symbols.

Since spelling is one of the most important tool subjects and is important in written and oral expression, many specialists have devoted their time to the study of the problem. Spelling should be taught as a language-related skill which serves the child's purposes in written expression both in and out of school. It is learned and practiced as a functional tool for written work in content studies and school activities.1 If the individual is able to pronounce words correctly, knows how to write or spell, and understands the meaning and use of these words, the individual can communicate more wisely and efficiently. Hence, we are more aware today than of the past of the complexity of the problem which we face, and cannot give a definite answer.

The writer finds in all phases of life that the functional needs of spelling are greater than in previous years. Where there is continuous need for writing, there is always need for spelling. Therefore, if spelling is made more specific, in that it becomes an outgrowth of the various experiences and correlated with spelling in context, it builds a better foundation in spelling.

Various studies have been made in the learning procedures for more effective spelling. It appears that words in isolation, meaning and oral repetition are not sufficient, but learning to spell is a matter of organization. The pupils must be stimulated to continue their interest and to increase their abilities in oral and written spelling.

Learning to spell is correlated with growth in the pupil's linguistic powers. The child who tends to be less competent in oral language and slow in learning to read tends to be slow in learning to spell in general, and the contrary holds for the gifted child. Our speech and writing are interrelated. We write as we talk using the same vocabulary orally and in writing, and organizing the content similarly in both speaking and writing.¹

Spelling should be taught as it relates to the activities of the learners in school. As children listen and read, words take on new meanings and new words are added to the speaking and listening vocabulary. Many of these words should become a part of the children's writing vocabularies.²

¹Ibid., p. 27.
Words that come directly from the children's writing give one good basis for planning instruction in spelling. Some type of inventory test will help determine which words in the speller the children do not know. Most spelling texts contain such inventory tests at the back of the book. The most justifiable criterion for selection of words for spelling instruction is their use in writing. Most of the words that children use in their writing do not appear in their spelling textbook list at the exact time they are first used.¹

Context writing is a complex process even for capable fifth grade pupils and above. The child has to attend not only to the ideas he wants to express but also to the language he wants to use punctuation, especially the proper use of capitals, periods and quotation marks, and spelling of old and new words.

There are several things that can be done to reduce the complexities of context writing. First, there is no point in requiring extensive paper work until pupils are self-assured in writing sentences and paragraphs. Second, pupils should help write or spell the words instead of the teacher. Third, the pupils should do oral language activity by making short talks. Also, they should spend time writing sentences and simple paragraphs.²

¹Ibid., p. 258.

Structural and phonetic analysis of words can be introduced as spelling aids when pupils begin to notice likenesses in parts of words they see in their reading. In the upper grades, a child enjoys adding prefixes and suffixes to root words. He also likes to identify homonyms and compare their spelling.

Understanding syllabication helps children see the parts of words. This aids in pronouncing and remembering words. Children should learn to recognize syllables as parts of entire words rather than as separate elements. Syllabication will help children to understand how to divide words correctly at the end of a line of writing.¹

Some of the causes of the many errors in spelling are:
1. Failure to understand meaning of the words.
2. Use of only one type of imagery in studying words as the auditory.
3. Inability to pronounce words correctly.
4. Attempts to apply rules which have not been learned correctly or completely.
5. Writing difficulties, such as confusing "b" and "d," "p" and "q," "u" and "w," and "v" and "n."
6. Poor methods of study.²

Evolution of the Problem

The writer's interest in the area of spelling evolved out of

¹Gertrude Hildreth, op. cit., p. 263.
²Ethel L. Hatchett and Donald H. Hughes, op. cit., p. 265.
a desire on the part of the writer, a teacher in the E. C. Clement Elementary School, to investigate this problem area because of personal interest. This writer considers spelling to be one of the most important of the tool subjects when it is used in context and as a means of communication, and sincerely believes that training in spelling should be carried on continuously for the growth and development of boys and girls.

Contribution to Educational Knowledge

It was the writer's belief that this study might contribute the following to educational knowledge:

1. It might provide information that will be of significance to other teachers in improving the teaching of spelling, to make it more interesting and meaningful to the boys and girls.

2. It might provide some evidence that spelling will be of a more valuable tool in improving reading and writing.

Statement of the Problem

The problem is designed to determine the relative effectiveness of the textbook method and a more functional method of teaching spelling to selected fifth grade pupils of the E. C. Clement School.

Definition of Terms

The textbook method involved learning to spell according to the specific procedures outlined in the basic speller. The authors have selected the words from a standard word list and have arranged them into groups which ascend in difficulty and have been placed in contextual
settings designed to give the pupils a meaningful background for learning to spell.

The functional method involved activities which grew out of the immediate needs of the pupils in skills and content areas and from circumstances of a more personal nature. A part of the work was done on a group basis, while other aspects of it were individualized. Thus the practical value of correct spelling was held constantly before the children as they concentrated on learning the spelling they needed to use in their immediate writing.¹

Beck and his associates point out that:

Spelling is taught both instrumentally and formally. There is still much controversy between those who would teach it instrumentally and those who would teach it formally. Instrumental spelling, taught in connection with classroom activities, does not involve a definite word list and a specific number of minutes for its mastery each day or week. The words taught are the new and important ones that arise as the work of the class progresses and as the children's inability to spell them becomes obvious. Since learning carries with it the power to spell many other words, those who advocate the instrumental method stress the wide range in individual differences and the inability of spelling experts to arrange spelling words accurately in grade-placement categories... Instrumental teaching of spelling takes individual differences into account and provides motivation springing from real purposes! There is no reason to discard drill in this method; it may or may not take place in regularly scheduled periods. As words arise, they are put into lists and learned.²

Purpose of the Study

The major purpose of this study was to determine if there is a


difference between the textbook method of teaching spelling and a more functional method. Specifically, the purposes of this study were:

1. To determine the relative effectiveness of the textbook method and the functional method through a comparison of the subjects' performances on spelling tests of the multiple choice type.

2. To determine the effectiveness of the two methods through a comparison of the subjects' performances on tests requiring the spelling of words in isolation.

3. To determine the relative effectiveness of the two methods through a comparison of the subjects' performances on a test requiring the placement of the words in meaningful sentences.

4. To determine the relative effectiveness of the two methods through comparison of the overall test performances.

5. To ascertain suggestions and implications for improved practices in the teaching of spelling.

Limitations of the Study

This study was limited to twenty-four fifth grade pupils enrolled at the Emma Clarissa Clement Elementary School, Atlanta, Georgia. It was also limited by the fact that the experiment lasted for a period of six weeks.

Method of Research

The method of research employed in this study was the experimental method utilizing the group technique, and employing tests as the main
investigative tool.

Locale of the Study

The Emma Clarissa Clement Elementary School is located at 180 Holly Road in the northwest section of Atlanta, which is the capital of Georgia. The school is very attractive in architecture, comparatively new with spacious classrooms and is generally conducive to successful use of such techniques as this study utilized.

The total enrollment is 987 pupils from kindergarten through seventh grade. The majority of the pupils live within a two mile radius from the school. A number of the pupils live in the Simpson Road apartments, in which the families represent average and below in income. However, many families are home owners and a little above average in income; some are skilled workers. The parents' interest in their children are of great concern, and the children's background of experiences vary widely.

At the time of this study, the faculty and staff include a principal, twenty-eight classroom teachers, a part-time band teacher, full time librarian, special education teachers, cook, custodian, three maids, two secretaries and three assistants to the cafeteria.

The grade distribution of the school was from kindergarten through seventh grade, and curriculum was planned in accordance with State requirements. Diversified extra activities were carried on for pupils of all grade levels.
Subjects

The subjects of this study were selected fifth grade pupils of the Emma Clarissa Clement Elementary School. There were twenty-four pupils that participated in the study: 13 boys and 11 girls, ranging in age from 10 - 11 years.

Description of Instruments

The instruments used for gathering the basic data needed for this study were: The Kuhlmann-Anderson Test (Form D), Sixth Edition, by F. Kuhlmann and Rose C. Anderson; The Stanford Achievement Test (Intermediate Battery, Forms J, K and M) by T. L. Kelley, Richard Madden, Eric F. Gardner, Lewis M. Terman and Giles M. Ruch; The Morrison McCall Spelling Scale by J. Cayce Morrison and William A. McCall, and the Lincoln Intermediate Spelling Test by A. L. Lincoln.

Buros states that the Kuhlmann-Anderson tests are among the best all-round group intelligence tests. He further reports that the Stanford Achievement test is one of the finest achievement tests available. Although certain shortcomings are cited about the Lincoln Intermediate Spelling Test, he reports that this test is a very useful measuring instrument.1

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As for the Morrison-McCall Spelling Scale, he reports its usefulness is limited. It is not recommended for the primary grades.1

The Kuhlmann-Anderson Test (Form D) has as its purpose the measurement of the mental development of pupils. A battery of ten sub-tests is included in this form. Each test in the Battery is individually standardized, and mental age equivalent scores are provided for evaluating performances on it. Each test is scored by counting the number of correct responses. After mental age equivalents have been obtained for all the subjects, the median mental age for the battery is computed. This is divided by the pupils' chronological age to obtain his intelligence quotient.

These subtests are numbered and arranged in ascending order of difficulty. Each test has preliminary examples for practice, these not being scored, and directions are afforded for each test.

Validity is defined in terms of discriminative capacity, that is of the ability of tests to detect differences in mental development over the age range covered. Split-halves, reliability coefficients range from 88 to 97.2

The Stanford Achievement Test (Forms J, K and M), is the designation of a series of achievement tests designed to measure the important knowledge, skills, and understandings commonly accepted as desirable outcomes of the major branches of the elementary curriculum. The tests are intended to provide teachers, supervisors, administrators, and others with the growth and development of elementary school pupils, dependable measures of these outcomes, comparable from subject to subject and grade to grade, and evaluation of progress.3

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1Ibid.

2Ibid., pp. 405, 302.

Reliability of the test is the adequate interpretation of the scores. Reliability data for the tests in the intermediate batteries are given in tables. These tables present split-half reliability coefficients for each subject, separately for the pupils, based on random samples of pupils from 3h school systems in the standardization.¹

The manual contains very little information concerning the validity of the test. It merely states that in keeping with the major goal of the test that the construction of this edition in order to make certain that the test content would be valid in the sense of its intended goal, was preceded by a thorough analysis of the most widely used seven of elementary textbooks, courses of study, and of the research literature pertaining to children's concepts, experiences and vocabulary at successive ages or grades. The manual further states that the test has been carefully evaluated by experts in the various subject fields and subjects to rigid statistical evaluation.² The nature and content of the specific parts of this test that were used in this study are described briefly below.

The Paragraph Meaning Test consists of a series of paragraphs, graduated in difficulty from each of which two or more words have been omitted. The pupils were to demonstrate their ability to comprehend a paragraph by selecting the proper word or each omission from four choices that are afforded. The test provides a measure of the pupils' ability to comprehend connected discourse involving levels of comprehension varying from extremely simple recognition to the making of inferences.

¹Ibid., p. 18.
²Ibid., p. 1.
from several related sentences. The test is 25 minutes for 48 items.

The Word Meaning Test employs a multiple-choice type of item in which the pupil is required to select the proper answer for a given stimulus word from a series of four alternatives. In addition to items measuring knowledge of synonyms, definitions, and ready associations, there are included items designed to measure higher-level comprehension of the concepts represented by words, and fullness of understanding of them. Twelve minutes is allotted for the completion of the forty-eight items in this test.

The Spelling Test consists of seventy-two multiple choice items in which the pupil chooses the correct spelling from among three possible spelling or marks "N.G." if the spelling is not given. Pupils are given fifteen minutes to complete the seventy-two items.

A description of the remaining instruments is given in the following paragraphs.

The Lincoln Intermediate Spelling Test is designed for grades 5 through 8, and it is available in four forms. The words have been arranged in approximate order of difficulty, as determined by grade placement set by Gates, Betts and the New York State Spelling List.²

Buros states that he feels the author has produced a very useful measuring instrument and that our profession is greatly indebted to him for constructing this type of test.² The words arranged

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¹The Lincoln Intermediate Spelling Test, Manual of Directions, p. 3.
²Buros, op. cit., p. 203.
by Gates, Betts and the New York State Spelling List were used in preparing the tests. Each form of the test consists of one hundred words and each correct answer counts one point. Forms C and D were used.

The words to be spelled are omitted from the context of illustrated sentences. The sentences are given in order to help the pupil understand the words to be spelled. As each word is pronounced by the test administrator, the pupil must read the corresponding sentence after which he writes the word on a line opposite the sentence.

The Morrison-McCall Spelling Scale includes eight forms of fifty words each arranged progressively from easy to difficult and useful for testing spelling achievement in Grades II through VII. The words in the spelling scale were selected by Ayrres' Spelling Scale and Duckingham's Extension of Ayrres' Spelling Scale and the words were required in addition to appear among the 5,000 most commonly used words as reported in Throndike's Word Book. Each correct answer counts one point. Illustrative sentences are provided for the administrator of the test in which the words are contained.

Buros states that this test has undoubtedly been a valuable measuring instrument.

1 The Morrison-McCall Spelling Scale, Manual of Direction, p. 6.

2 Buros, op. cit., p. 331.
Research Procedure

This study was conducted thusly:

1. Permission was obtained from the proper school authorities to conduct this study.

2. The subjects involved were selected on the bases of intelligence and reading levels. These scores were obtained from tests administered during the first quarter of the 1961 - 62 school term. Equivalent rather than matched groups were selected.

3. Form K of the Stanford Achievement Test, List 1, Morrison-McCall Spelling Scale and Form E of the Lincoln, Intermediate Spelling Test were given as the pre-tests, and results were treated statistically as directed by the purpose.

4. After pre-tests were administered, Group T was taught by the textbook for six weeks, while Group F was taught by the functional approach. These groups were taught separately of each other as experimental groups.

5. At the end of the six weeks they were re-tested -- The Stanford Achievement Test Form M, the Morrison-McCall Test II, and the Lincoln Test, Form D were given. The data obtained were assembled into appropriate tables and statistically treated as designed by the purpose.

6. All statistical data were analyzed and interpreted at the 5 per cent level of confidence.¹

7. The findings, conclusions, implications and recommendations stemming from the analysis and interpretation of the data were written up and constitutes the content of the thesis.

Survey of Related Literature

The literature pertinent to this problem was reviewed and the writer has given her attention to the importance of methods in the teaching of spelling. Information relative to the present study was reviewed as follows:

1. Related factors influencing achievement in spelling
2. Need for further research in spelling

Related factors influencing spelling achievement. —Related literature reviewed and summarized in connection with this study revealed that considerable research has been made and authorities agree that many factors are related to spelling and thus enhance achievement in spelling. Most investigations concerning the factors that influence spelling achievement indicate that spelling ability is related to ability in other facets of the language arts.¹

In a study concerning spelling abilities in relation to reading, the writer finds that authorities agree there is an intimate relationship between learning to read and learning to spell. In fact, much of the spelling pupils learn is a by-product of reading, as is proved by the

data concerning incidental learning. On the whole, pupils who advance rapidly in reading make good progress in spelling. Correlation studies show that reading vocabulary, comprehension, and rote are all positively correlated with spelling and that the correlations are relatively high.\(^1\)

In a study of spelling readiness, Russell found that spelling ability was closely associated with reading skills, word recognition, paragraph meaning, recognition of letters of the alphabets and visual word discrimination.

Reading helps in spelling chiefly through the pronunciation of words audibly or sub-vocally, and the use of phonics in sounding out words or word parts. Oral reading must contribute more to spelling than silent reading, because in oral reading closer attention must be given the sounds in the entire word.

Russell found the following correlations between spelling and reading:

(1) Spelling and reading comprehension .86, (2) Spelling and reading speed .66, and (3) Spelling and word recognition .86. He concluded, however, that poor spelling is not necessarily caused by deficiencies in reading; however, he felt that definite improvement in reading may affect spelling ability favorably.\(^2\)

In addition to this, Stauffer has stated that the relationship between reading and spelling is relatively close since both utilize

\(^1\)Gertrude Hildreth, op. cit., p. 29.

visual form. Also, he stated that since correct pronunciation is important to both reading and spelling, auditory imagery, as well as the kinesthetic imagery of writing, contributes to success in both areas.\(^1\)

Horne states that

Spelling and reading abilities are closely related. Correlations which have been reported between spelling and reading are nearly as high as those which have been reported between intelligence and reading. It seems reasonable to expect that the more often a word is seen in reading the more probable it is that pupils learn to spell it.

The contributions of reading to spelling, however, are not limited to the words that children learn to spell. Many auxiliary abilities are developed, such as the use of the dictionary, the improvement of pronunciation through oral reading, and the ability to associate letters with sounds. The potential contributors of reading to spelling are substantial. As reading abilities are developed, spelling is improved. On the other hand, deficiencies in reading are serious handicaps.\(^2\)

There is evidence that the pupil can more easily recall words in reading which he or she has used in conversation and can pronounce easily than words he has merely observed visually.

Poor spelling in the intermediate grades is sometimes explained by blaming poor word-analysis techniques. In actual fact, well-planned reading and spelling activities should supplement each other. Furthermore, spelling lessons often provide ideal settings for added experiences in word analysis, since they offer a purposeful opportunity to study the make-up of words.


Another facet in achievement in spelling is vocabulary. The knowledge of word meanings and word usage in English grammar helps the pupil to spell better.

Authorities concluded that vocabulary knowledge is a more significant determinant of spelling success than intelligence, particularly in the first five grades. A low meaning vocabulary is likely to be a cause of spelling difficulty.

Learning to spell and competence in spelling are related to oral word usage, pronunciation, and articulation. A child tends to write as he speaks. Wide individual differences are found in the speaking vocabularies of children of similar age which are reflected in their writing vocabularies. Improvement in oral vocabulary has a bearing on spelling, because it results in improvement of diction and word pronunciation. Sounding out a word strengthens retention of usual form and aid in learning the work permanently. Sounding forces the pupil to observe the differences between confusing words; recall pronunciation, the meaning, and as a result is likely to recall the word later.

Writing is essential to success in spelling. Learning to spell words commonly met in reading and using them in written expression provide another form of permanent retention of printed words. These experiences are of value because writing requires recall of the visual forms and auditory impression of words. Furthermore, writing furnishes another form of motor response in working with words. Even copying words as well as writing them from memory increases retention, provided the copying is not a purely mechanical exercise.

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\(^{1}\text{Ibid., p. 133.}\)
Knowledge of the separate letters, their forms and sounds, is an aid in fixing printed words in mind because the alphabetical features of certain words furnish clues to recall. Writing the printed words requires the study of the words as spoken and also their phonetic sound. Thus, the real meaning of words becomes a part of the pupil's writing vocabulary. True spelling is translating speech into written symbols.¹

Experience in composing and writing is essential to the learning of spelling. The more use a child makes in his writing of words he is learning to spell, the more quickly he achieves mastery. The child who is interested in writing gives himself more practice and pays more attention to spelling than does the child who rarely writes. The more closely the writing the child does in school resembles the writing he does or sees others do in life outside the school, the more quickly and securely he masters the words he needs to use.²

Horn has also stated:

Pupils who write legibly and with reasonable speed have an advantage in taking tests in spelling because they can write the words in the time allotted, are not penalized because of illegible letters, and can give their entire attention to spelling without being distracted by handwriting difficulties. Furthermore, poor hand writing is frequently cited among the factors that cause difficulty in spelling.³

³Ernest Horn, op. cit., p. 21.
The potential contributions of composition to spelling are great indeed. The writing of letters, bulletins, items for the school news sheet, reports on special problems, and other forms of creative writing constitute important motives for learning to spell and aid in the maintenance of words which the pupil has learned in his spelling lessons.

The more the occasions for writing in school resemble the occasions in which writing is done out of school, the more likely it is that the learning of the most important words will be facilitated.

In schools which have regular or occasional spelling lessons, but do not use a text, the words for the spelling lessons may include words misspelled in written work. And even in schools which base spelling instruction primarily upon a text, words misspelled in written work are sometimes taught either in separate lessons or as a supplement to the regular lessons in the book. When this is done, the chief emphasis should be put on words that are most important in present and future writing.

However, correct spelling is a factor in acceptable written compositions and there should be increasing, emphasis upon it in intermediate grades and beyond. This implies that there be a definite plan for correcting errors. The evidence indicates that the mere checking of spelling errors does little good unless accompanied by an effective plan for learning the words which have been misspelled. The more pupils accept responsibility for detecting spelling errors and learning the misspelled words, the better. They are ordinarily not very good at proofreading, but the habit can be established and the
ability improved through practice.¹

In connection with the relationship existing between spelling and handwriting, Spache has stated:

It is generally accepted that poor handwriting is causally related to spelling failure. This must be conceded if for no other reason than the common practice among teachers of considering illegible or badly written spelling words as misspelled. The general opinion is evidenced by the fact that the majority of the writers attempting classification of spelling errors, used handwriting as a category of spelling errors.²

Spelling is one of the most important of the fundamental aspects of English instruction, for accuracy in spelling is essential to good written expression.³

Writing which is done in content areas tends to motivate and reinforce the child’s learning of spelling. Varied experiences motivate the child and encourage him to give careful attention to the spelling of key words in his writing.

It is essential that teachers and pupils give thought to spelling in each new area of content. A great deal of progress in spelling can take place apart from spelling lessons by drawing words from their actual writing needs and experiences. Thus, the practical value of correct spelling is held constantly before the minds of the children as they


concentrate on learning the spelling they need to use in their immediate writing.

Speech is a vital necessity in spelling achievement. The significance of speech as a factor in the total personality of the individual may not be so outwardly apparent. Psychologists tell us that good speech generates confidence and a feeling of security in relations with others, while poor speech lessens confidence, causes worry, and leads to withdrawal type of behavior.¹ Shortcomings in speech as mispronunciation of words and difficulty of putting words together into acceptable phrases and sentences often hamper good communication as well as good results in being able to spell correctly.

Techniques suggested for learning to spell a word focus on correct pronunciation and careful attention to sounds and syllables. Spelling activities can be used to build the habit of listening and looking for sounds and syllables. Prefixes and suffixes can be studied. Pupils can be encouraged to break words into syllables, to identify familiar roots and to work out simple spelling and pronunciation rules.

Shortcomings in speech, as most authorities seem to agree, such as defects, are related to disability in spelling. Concerning the influence of speech on spelling, Spache has said if for no other reason than the tendency to spell phonetically, and hence to misspell mispronounced words, attention must be given to the pronunciation, bilingualism and articulatory defects of children. Further he states that

maintaining such characteristics may not differentiate matched groups of spellers or readers but they apparently do possess a positive relationship to many cases of disability.¹

Horn also states that shortcomings in speech, such as mispronunciations and articulatory defects have been found to be related to disabilities in spelling. It is to be expected that the removal of these shortcomings will be reflected in better spelling. Abundant opportunities for speaking help the pupils develop fluency in expression which is likely to be carried over into written work with potential benefits to spelling.²

Need for continued research.—In spite of the advancement in spelling many authorities agree there is a growing need for continued research on spelling vocabulary, word-frequency counts, and grade placement of words in spelling lists.

Word counts are merely in their infancy. There is need for more and better counts that include all the forms of words, and reliable samplings in every type of writing and printed material, both for children and adults. These lists should be kept up-to-date through frequency recounts.

There should be more adequate studies of the typical age levels at which children tend to use certain words or certain types of words

¹George Spache, op. cit., p. 567.
²Ernest Horn, op. cit., p. 13.
in both speaking and writing. There should be additional studies of the
frequency levels of words used by children of all ages in their
spontaneous writing, and daily conversations. More investigations should
be made of the extent to which children can spell the common words they
want to use when they write, and of the nature and degree of phonetic
consistency in English words.\(^1\) Further investigations are needed to
check the vocabulary of children's writing in and out of school with
the spellers list at all grade levels.

Fitzgerald states that many spelling investigations have been
carried out during the past half century, and the improvement in the
teaching of spelling has been slow. One of the chief difficulties seems
to have been that results of research and experimentation were not readily
available to the teacher. Additional investigations are necessary to
solve some of the complex problems of spelling.\(^2\) Many of the immediate
problems can be solved by the use of available research findings.

Horn reports that there is a growing interest in the possibility
that teaching sound-to-letter relationships might contribute to the
improvement of spelling ability. On the other hand, he has maintained
that there is not enough adequate evidence for a confident decision as
to how much and in what way the teaching of phonics can increase
efficiency in spelling instruction.\(^3\)

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\(^1\) Gertrude Hildreth, *op. cit.* , pp. 297-298.
\(^3\) Ernest Horn, *op. cit.*, p. 16.
Summary of Related Literature

The review of related literature made distinct contributions to this study. The literature revealed that:

1. There is a close connection between spelling achievement and reading abilities.
2. Children learn to spell and use words for which they have one or more meanings.
3. Many abilities required for vocabulary development are also used in correct spelling.
4. Several authorities stated that there is a tendency for a good speller to have a superior vocabulary.
5. Learning to spell and competence in spelling are related to oral word usage, pronunciation and articulation. A child tends to write as he speaks.
6. Children, in developing their spelling through writing, tend to have favorable attitudes toward spelling, reading, written expression as well as oral. Writing which is done in content areas tends to motivate and reinforce the child's learning of spelling.

Many authorities agree there is a growing need for continued research on spelling vocabulary, word-frequency counts, and grade placement of words in spelling lists.

The survey of literature and the overall summary aided the writer in the presentation and interpretation in reporting the following chapters.
CHAPTER II

PROCEDURES, PURPOSES AND INTERPRETATION OF DATA

Introduction

The purpose of this chapter is to present in order the contents of the experimental study. Accordingly, it will present (1) selection of subjects, (2) description of test results used as bases for forming the two groups, (3) description of test results for the pre-testing period of the experimental study, (4) description and explanation of purposes and procedures used in the two methods of teaching spelling, (5) description of test results for the post-testing period of the study.

The pre-testing began February 13, 1962 and ended February 17, 1962; and the tests administered were the spelling tests from the Intermediate Battery of Stanford Achievement Test, Form K, the Morrison-McCall Spelling Scale (List 1), and the Lincoln Intermediate Spelling Test, Form D.

Selection of the Subjects for the Study

During the latter part of the first semester, 1961-1962; the subjects were administered the Stanford Achievement Test (Form J), and
the Kuhlmann-Anderson Test, Form D. These test results were used to determine the subjects to be selected for the study. The subjects used in the study were limited to a low reading level of 3.0 and an intelligence low of 80. In making the subjects equivalent for grouping, the writer obtained reading and intelligence scores from the results of the Stanford Achievement Test (Form J), and the Kuhlmann-Anderson Test (Form D), respectively. As the writer equated the subjects' reading levels, and effort was made not to have more than five average reading points difference between pairs. Greater laxity was permitted in equating the subjects' intelligence quotient, since research has shown that the correlation between reading and spelling is much higher than the correlation between intelligence and spelling. Thus, the intelligence quotient points differences, range from 0 to 13 points between pairs. Twelve pairs of fifth grade pupils were selected and used in this study.

Results of performances of Group T and Group F reading test on the Stanford Achievement (Form J).--It may be observed in Table 1, page 28 that the subjects in Group T indicated a range in average reading level scores from a high of 64 to a low of 29, with a mean score of 38.55, standard deviation of 10.15 and standard error of the mean of 2.93. The reading scores classified the subjects into the following groups; four subjects were located above the mean and 8 below the mean with the scores ranging from high 64 to low 29 and a mean of 38.55. Six pupils were found to be two grades below their grade level, 3 pupils one grade below, 1 pupil on the grade level and 1 above grade level and 66 2/3 per cent of the pupils below the mean and 33 1/3 above the mean.
TABLE 1

DATA CONCERNING AVERAGE READING LEVELS AND INTELLIGENCE QUOTIENTS FOR GROUP EQUIVALENCY

<table>
<thead>
<tr>
<th>Textbook IQ</th>
<th>Textbook Reading</th>
<th>Functional IQ</th>
<th>Functional Reading</th>
</tr>
</thead>
<tbody>
<tr>
<td>107</td>
<td>64</td>
<td>120</td>
<td>66</td>
</tr>
<tr>
<td>119</td>
<td>48</td>
<td>117</td>
<td>53</td>
</tr>
<tr>
<td>105</td>
<td>46</td>
<td>108</td>
<td>41</td>
</tr>
<tr>
<td>110</td>
<td>35</td>
<td>99</td>
<td>37</td>
</tr>
<tr>
<td>103</td>
<td>42</td>
<td>94</td>
<td>37</td>
</tr>
<tr>
<td>98</td>
<td>35</td>
<td>96</td>
<td>33</td>
</tr>
<tr>
<td>94</td>
<td>38</td>
<td>92</td>
<td>36</td>
</tr>
<tr>
<td>93</td>
<td>35</td>
<td>92</td>
<td>30</td>
</tr>
<tr>
<td>92</td>
<td>30</td>
<td>90</td>
<td>33</td>
</tr>
<tr>
<td>88</td>
<td>29</td>
<td>89</td>
<td>31</td>
</tr>
<tr>
<td>87</td>
<td>30</td>
<td>88</td>
<td>29</td>
</tr>
<tr>
<td>82</td>
<td>31</td>
<td>83</td>
<td>32</td>
</tr>
</tbody>
</table>

Mean: 117.8 46.3 98.17 38.58 10.86 10.15 3.13 3.93

Mean: 116.8 45.8 97.33 38.17 11.04 10.86 3.19 3.13
The subjects in Group F indicated a range from a high of 66 to a low of 29, with a mean score of 38.17, standard deviation of 10.86, and a standard error of the mean of 3.13. The reading scores classified the subjects into the following groups: three subjects were located above the mean of 38.17 and 9 subjects below the mean. This shows 75 per cent of the subjects were below the mean and 25 per cent above the mean. The average reading level scores of 64, 66, 31 and 29 represent grade equivalents of 6.8, 7.0, 3.1, respectively.

A comparison of the results of performances of Group T and F on the Stanford Achievement Test (Form J).—The data as shown on Table 1, page 28, indicated the following results: The mean scores of 38.58 and 38.17 had a difference of .41 which is less than one point for Group T and F, respectively; standard deviation scores of 10.15 and 10.86, respectively; standard errors of the means of 2.93 and 3.13, respectively; a difference of .71 between the standard deviation scores and .20 between the standard error of the means. The results of the comparison of the test ratings showed that the groups were equal to or as nearly equal to each other in reading achievement. However, the larger per cent was below average for their grade level.

Results of performances of Groups T and F on the Kuhlmann-Anderson Test, Form D.—It may be observed that in Table 1, page 28, the subjects in Group T indicated a range in intelligence test performance from a high 119 to a low of 82, with a mean of 98.17, a standard deviation of 10.86 and a standard error of the mean, 3.13. The results of the scores classified the subjects into the following
groups. Three subjects were located at the low level of the group with scores ranging from 82-88; four subjects located at the average level with scores ranging from 92-98; and five above the average of the group with scores ranging from 103-119. Fifty-eight and one third per cent of the scores were below the mean of 98.17 and 41 2/3 per cent above the mean.

The subjects in Group F indicated a range in intelligence of a high 120 to a low of 83, with a mean score of 97.33, a standard deviation of 11.04, and a standard error of the mean 3.19. The results of the scores classified the subjects into the following groups. Three subjects were at the low level 83-99, six subjects at the average 90-99 and three subjects above 100-120. Sixty-six and two thirds per cent of the subjects scored below the mean of 97.33 and 33 1/3 scored above the mean.

A comparison of the results of Group T and F on the Kuhlmann-Anderson Test (Form D).—The data as shown on Table 1, page 23, indicated that as a comparison of the results the mean scores of 98.17 and 97.33 had a difference of .34 less than one point for Groups T and F, respectively; standard deviations of 10.36 and 11.04, respectively, with a difference of .18 and standard errors of the means, 3.13 and 3.19 with a difference of .06 for Groups T and F, respectively.

As a result of the above comparison, it can be stated that the two groups matched with no significance between them. It can be observed that most of the scores fall below the mean for both groups in reading and intelligence. The groups were below the level of expectancy in average reading achievement.
Description of Test Results for the Pre-Testing Period of the Experiment

Results of Groups T and F performances on the pre-testing Spelling Test of the Stanford Achievement Test (Form K).-- The data shown on Table 2, page 32, indicated for Group T a range in spelling achievement scores from a high of 53 to a low 13, with a mean of 34.5, a standard deviation of 12.55 and a standard error of the mean of 3.62 with 42 per cent of the pupils scoring below the mean of 34.5 and 58 per cent above the mean. The 42 per cent of the subjects fell below the average level of achievement.

The subjects in Group F, Table 2, page 32, on the Stanford Achievement Spelling Test, Form K, indicated a range of high 46 to a low 13; with a mean of 29.8, a standard deviation of 8.30 and a standard error of the mean of 2.40. Fifty-eight per cent of this group fell below the mean while 42 per cent were above the mean. Group F indicated more than 50 per cent of the pupils achieving below the mean of the group.

Comparison of the results of Groups T and F on the Stanford Achievement Test (Form K), pre-testing.--The data as shown on Table 2, page 32, indicated a difference between the means of 1.70; standard deviations, 12.55 and 8.30, respectively; standard errors of the means, 3.62 and 2.40, respectively and the "t" ratio 1.08, with 22 degrees of freedom did not reach the 2.074 required for significance at the five per cent level; thus, there was no significant difference between the group's pre-test performances on the multiple choice type of spelling.
TABLE 2

PERFORMANCE SCORES OF TWO GROUPS OF SUBJECTS WORKING UNDER DIFFERENT SETS OF INSTRUCTION ON THE STANFORD ACHIEVEMENT SPELLING TEST (FORM K)

<table>
<thead>
<tr>
<th>Pupils</th>
<th>Group T</th>
<th>Group F</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>50</td>
<td>46</td>
</tr>
<tr>
<td>2</td>
<td>31</td>
<td>41</td>
</tr>
<tr>
<td>3</td>
<td>53</td>
<td>36</td>
</tr>
<tr>
<td>4</td>
<td>19</td>
<td>13</td>
</tr>
<tr>
<td>5</td>
<td>37</td>
<td>36</td>
</tr>
<tr>
<td>6</td>
<td>48</td>
<td>27</td>
</tr>
<tr>
<td>7</td>
<td>21</td>
<td>25</td>
</tr>
<tr>
<td>8</td>
<td>23</td>
<td>25</td>
</tr>
<tr>
<td>9</td>
<td>38</td>
<td>27</td>
</tr>
<tr>
<td>10</td>
<td>40</td>
<td>28</td>
</tr>
<tr>
<td>11</td>
<td>13</td>
<td>30</td>
</tr>
<tr>
<td>12</td>
<td>41</td>
<td>24</td>
</tr>
<tr>
<td>Totals</td>
<td>414</td>
<td>358</td>
</tr>
</tbody>
</table>

Means 34.5 29.8
S. D. 12.55 8.30
SEM 3.62 2.40

Difference between the means 4.70
Standard Error of the Difference Between the mean 4.34
"t" 1.08
df 22
p(.05) 2.074
Results of Groups T and F performances on the pre-test of the Morrison-McCall Spelling Scale (List 1).—It may be observed that Table 3, page 34, shows that Group T indicated a range from a high 31 to a low of 10, with a mean score of 21.4, a standard deviation of 7.35 and a standard error of the mean of 2.12. Forty-two per cent of the subjects in this group fell below the mean, while 58 per cent of the subjects were above the mean.

The subjects in Group F on the Morrison-McCall Spelling Scale List 1, indicated a range of high 29 to a low of 10, a mean score of 13.5, a standard deviation of 7.47 and a standard error of the mean of 2.16. Forty-two per cent of the subjects in this group fell below the mean, while 58 per cent of the subjects were above the mean.

A comparison of the results of Groups T and F on the Morrison-McCall Spelling Scale (Test 1).—The data as shown on Table 3, page 34, indicated a difference between the means of 2.90, standard deviations, 7.35 and 7.47, respectively; standard errors of the means of 2.12 and 2.16, respectively; standard error of the difference between the means 3.0, and a "t" ratio of .90 with 22 degrees of freedom did not reach the 2.074 required for significance at the five per cent level; thus, there was no significant difference between the groups' pre-test performances on spelling tests that require the spelling of words in isolation.

Results of Groups T and F performances on the Lincoln Spelling Test, Form B.—It may be observed that Table 4, page 35, shows that Group T indicated a range from a high 49 to a low of 6, a mean score
## TABLE 3

**Performance Scores of Two Groups of Subjects Working Under Different Sets of Instruction on the Morrison-McCall Spelling Scale, List 1**

<table>
<thead>
<tr>
<th>Pupils</th>
<th>Group T</th>
<th>Group F</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>29</td>
<td>29</td>
</tr>
<tr>
<td>2</td>
<td>24</td>
<td>29</td>
</tr>
<tr>
<td>3</td>
<td>29</td>
<td>28</td>
</tr>
<tr>
<td>4</td>
<td>10</td>
<td>10</td>
</tr>
<tr>
<td>5</td>
<td>27</td>
<td>21</td>
</tr>
<tr>
<td>6</td>
<td>25</td>
<td>20</td>
</tr>
<tr>
<td>7</td>
<td>12</td>
<td>10</td>
</tr>
<tr>
<td>8</td>
<td>15</td>
<td>13</td>
</tr>
<tr>
<td>9</td>
<td>17</td>
<td>12</td>
</tr>
<tr>
<td>10</td>
<td>31</td>
<td>20</td>
</tr>
<tr>
<td>11</td>
<td>14</td>
<td>20</td>
</tr>
<tr>
<td>12</td>
<td>24</td>
<td>10</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Totals</th>
<th>257</th>
<th>222</th>
</tr>
</thead>
<tbody>
<tr>
<td>Means</td>
<td>21.4</td>
<td>18.5</td>
</tr>
<tr>
<td>S.D.</td>
<td>7.35</td>
<td>7.47</td>
</tr>
<tr>
<td>$S_{EM}$</td>
<td>2.12</td>
<td>2.16</td>
</tr>
</tbody>
</table>

Difference between the means: 2.90
Standard Error of the difference between the means: 3.0
$t$: 0.90
df: 22
$p(.05)$: 2.074
of 26.7, standard deviation of 15.65, and a standard error of the mean of 1.52. Forty-two per cent of the subjects in this group fell below the mean, while 58 per cent of the subjects in this group were above the mean.

The subjects in Group F on the Lincoln Spelling Test, Form B indicated a range of high 54 to a low of 2, a mean score of 20.9; standard deviation of 16.18, and a standard error of the mean of 1.67. Fifty-eight per cent of the subjects fell below the mean and 42 per cent above the mean.

TABLE 4

PERFORMANCE SCORES OF TWO GROUPS OF SUBJECTS WORKING UNDER DIFFERENT SETS OF INSTRUCTION ON THE LINCOLN SPELLING TEST, FORM B

<table>
<thead>
<tr>
<th>Pupils</th>
<th>Group T</th>
<th>Group F</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>40</td>
<td>54</td>
</tr>
<tr>
<td>2</td>
<td>32</td>
<td>41</td>
</tr>
<tr>
<td>3</td>
<td>41</td>
<td>38</td>
</tr>
<tr>
<td>4</td>
<td>6</td>
<td>4</td>
</tr>
<tr>
<td>5</td>
<td>39</td>
<td>26</td>
</tr>
<tr>
<td>6</td>
<td>39</td>
<td>20</td>
</tr>
<tr>
<td>7</td>
<td>4</td>
<td>2</td>
</tr>
<tr>
<td>8</td>
<td>10</td>
<td>7</td>
</tr>
<tr>
<td>9</td>
<td>16</td>
<td>12</td>
</tr>
<tr>
<td>10</td>
<td>49</td>
<td>22</td>
</tr>
<tr>
<td>11</td>
<td>14</td>
<td>10</td>
</tr>
<tr>
<td>12</td>
<td>31</td>
<td>15</td>
</tr>
</tbody>
</table>

| Totals | 321      | 251      |
| Means  | 25.7     | 20.9     |
| SD     | 15.65    | 16.18    |
| SEM    | 1.52     | 1.67     |
| Difference between the means | 5.8 |
| Standard Error of the Difference between the means | 6.50 |
| "t"    | 5.89     |         |
| df     | 22       |         |
| p(.05) | 2.074    |         |
A comparison of the results of Groups T and F on the Lincoln Spelling Test, Form B.—The data as shown on Table 4, page 35, indicated a difference between the means of 5.8, standard deviations, 15.65 and 16.18, respectively; standard errors of the means, 4.52 and 4.67, respectively; and a "t" ratio of .89 with 22 degrees of freedom did not reach the 2.074 required for significance at the five per cent level; thus, there was no significant difference between the groups' pre-test performances on spelling test that required the use of words in meaningful sentences.

Description and Explanation of Purposes and Procedures Used in the Teaching of the Two Methods

Description of general procedure used with the groups.—Objectives for the two groups were established in making plans for the experimental study. Thus, the objectives for the functional group were:

1. To stimulate interest in making spelling more useful to the subjects.
2. To impress and facilitate accuracy of spelling through use.
3. To make spelling usable and functional.
4. To impress interest in accepting spelling as an integral part of all areas.
5. To induce a desire in the subjects to become better spellers.
6. To provide activities that encouraged subjects to want to spell accurately.

General procedures for the Functional Group.—The following outline of procedures was used to achieve the purposes of the study. During the first week following the pre-testing period, the subjects began to
gather words of difficulty from all areas of study which they anticipated frequent use in their educational experiences. These words were compiled into a list and subjects were pre-tested on the word list. At the end of this testing period, a few words were omitted from the study. During the six weeks approximately 90 words were experienced by the group.

The list of words was discussed with subjects as to the possible ways of making these words more meaningful, usable, interesting and as an integral part of all areas. The pupil-teacher plans included the following steps.

1. The group decided to make workbooks to keep a record of activities.

2. The words were grouped as action words, descriptive words and as nouns and those words not classified as the above were used.

3. The subjects consulted the dictionary for correct pronunciation, and meaning of the words.

4. There were suggested activities by the subjects and teacher used in the study.

Specific techniques and materials used to achieve purposes during the experimental period.---The classroom teacher availed herself of the opportunity to see that the atmosphere in the classroom was conducive for learning; in that, the proper ventilation, light, heat and seating arrangements appropriate for the activity were made. Materials such as individual dictionaries, construction paper, magazines, books, newspapers, and audio-visual aids were convenient for use. The audio-visual aids used are described thusly:
Television
1. Subjects listened and observed social studies program.
2. Listened for words used in program from their study list in spelling.
3. Wrote as many as remembered during experimental study.

Tape recorder
1. Earlier in the school year, pupils had voices recorded.
2. Subjects listened to correct pronunciation usage of language
3. Discussed in detail usage of correct spelling.

Realia used
1. Large cards were used with words from list.
2. Puzzles were made for solving by subjects.

Opaque Projector used
1. Words were flashed on chalk board.
2. Groups used words for games.

Workbooks used
1. Workbooks were made at the beginning of study.
2. All activities were entered by pupils.
3. A progress chart was kept in the books.

Procedures.—Many activities were experienced by the group with the idea of achieving objectives stated previously in this chapter.

Purpose.—To stimulate interest in making spelling more useful to the subjects, the teacher made available some activities to achieve this purpose.

1. There were group discussions as to why spelling is important in one's life.
2. Subjects listened to tape recordings to make comparisons.

3. Subjects read newspapers, magazines, books, listened and observed TV programs.

To impress accuracy in spelling the subjects experienced the following:

1. Games were used.

2. Original stories were written by subjects.

3. Subjects matched words and definitions.

4. Instructor drilled in correct pronunciation of words.

5. Subjects wrote sentences using words.

Spelling made usable and functional by the subjects:

1. There was a field trip to the Coca Cola Company as a culminating activity in science.

2. Subjects wrote short paragraphs about the trip using words they studied.

3. Subjects gave short talks to improve expression, diction, pronunciation and comprehension.

4. The group did dramatizations.

Subjects accepted spelling as an integral part and were induced to become better spellers by experiencing the following activities.

1. Subjects wrote poems for city-wide dental contest.

2. Subjects wrote original poems using action words.

3. Subjects completed words with letters omitted.

4. Subjects listened to short stories.

5. Subjects wrote original short plays.

6. Subjects listened to records and songs.
Subjects were encouraged to become better spellers by many of the activities mentioned previously; and several made puzzles; individuals introduced new games and directed the games during the class period. The subjects seemed well pleased having experiences the study and the group was small and the entire atmosphere was most pleasing. After the study ended, they continued to discuss the possibility of being taught in similar manner. Here are a few samples of their activities.

SAMPLE I

Matching Words and Meanings

DIRECTIONS: Write the alphabet below in each blank space that matches the meaning.

1. A minute particle or the smallest particle of an element _______.
2. Seven days _______.
3. One attached to another with respect and love _______.
4. A kindly thought, gratitude or feeling _______.
5. Young human being of either sex _______.
6. A guarantee of rights or privileges _______.
7. A number or quantity by which another number is divided _______.
8. A number or quantity to be divided by another _______.
9. A quantity resulting from the division of numbers or quantity _______.
10. A group of numbers brought together to be added _______.
11. A company of people transplanted from one country to another _______.
12. A source or origin, a settled rule or action _______.
13. A greeting _______.

11. One of the 50 states located Southeast of the U.S.

II. Words:

A. Georgia  
B. Valentine  
C. Principle  
D. Atom  
E. Week  
F. Friend  
G. Thank  
H. Children  
I. Charter  
J. Divisor  
K. Dividend  
L. Colony  
M. Addend  
N. Quotient

SAMPLE II

Puzzle

DIRECTIONS: Read and complete the statements below with the correct words. Write the word in the puzzles following the numbers across and down.

Across

1. A group of men formed a new_____.
2. The____ gave us the atomic bomb.
3. Me went to town____.
4. The____ is the number used to divide with.
5. A____ you note was written.
6. We have a new company to____ leather goods.
7. The____ is the number used to divide with.
8. She is a new____ to the president of the bank.
9. We have a new____ hall to play in.
10. ____ comes after Friday.
11. The weatherman told us how the____ changes over the state.
12. Georgia was a____ before it became a state.

Down

1. Mary is a____ of the U.S.
2. An____ is a yellowish substance.
3. We went to town____.
4. We have a new company to_____.
5. A____ you note was written.
6. We have a new company to____ leather goods.
7. The____ is the number used to divide with.
8. She is a new____ to the president of the bank.
9. We have a new____ hall to play in.
10. ____ comes after Friday.
11. The weatherman told us how the____ changes over the state.
12. Georgia was a____ before it became a state.
DIRECTIONS: Complete the following words by adding the correct alphabets.

```
p___ac___
co___o_n_
ch_r_st_r
p_ra___t
___ng_ne
re__r_at__on
en__ro__m__nt
c_im___t
yes___d_y
c___t_e___
pl__n__
p_ai__
p_t_ing
a__c_pt
r__pl__ed
___nu__te
oc__urr__d
pr___nc__p__l
re__l__y
```
Objectives for the Textbook Group were:

1. To understand language usage of nouns and pronouns.
2. To learn spelling principles, silent letters, and use of compound words.
3. To understand words and meanings.
4. To continue use of suffixes.
5. To understand letters and sounds.
6. To use words in meaningful sentences.

The objectives stated above were given by the authors of the textbook including six lessons from the textbook.

General procedures for the textbook group.—The following outline of procedures was used to achieve the objectives of the study. Following the pre-testing period, subjects were orientated as to the following procedures to be used during this study.

A. First day (story and new words)
   1. Read the story.
   2. Answer questions about the story.
   3. Look at each new word and say it.
   4. Find each new word.
   5. Write each new word in the story on paper.

B. Second day (letters and sounds)
   1. Followed directions given.
   2. If necessary to understand a new word use glossary in textbook.

C. Third day (C-test)
   1. Wrote each new word after teacher pronounced it.
3. Crossed out missed words and wrote them in notebook.

D. Fourth day (words and meanings)
1. Follow directions for words and meanings
2. Reviewed missed words on C Test

E. Fifth Day
1. Final Test
2. Checked words misspelled.
3. Learned to spell them.

Specific techniques used to achieve purposes during the experimental period. The classroom teacher availed herself of the opportunity to see that the atmosphere in the classroom was conducive for learning in that the proper ventilation, heat and seating arrangement were appropriate for the activity. After the group was orientated, they seemed just as pleased to be working with the teacher during the experiment. Here are a few samples of activities from the textbook.

Unit 20
A. Here is a paragraph taken from the story.

THE SNAKE

The first year we had a summer cottage in the valley, I had an adventure. I was taking a jar of jelly to a friend, a man sixty years old, who had done me a kindness. As I was walking along, a bird caught my attention. The bird was hopping back and forth in a queer, troubled sort of way.¹

B. Letters and Sounds

1. Write the new words ending in: ness, ty, ing, ed.

2. Write the new words in which: ar sounds like ar; ur sounds like ur; ee sounds like e; ey sounds like i.

3. Write the new words that begin with gr or sn.

4. Look in your word book for words beginning with g. Write the next letter. Write a new word starting with qu.

During each day's activities, subjects would complete assignment and discuss each in the group.

Description of Test Results for the Post-testing Period of the Experiment

Results of performances of Groups T and F on the Stanford Achievement Spelling Test, Form M, Post-testing period.—This test was used to seek the answer to the first purpose of this study which was to determine the relative effectiveness of the two methods through a comparison of the subjects' performances on spelling tests of the multiple-choice type. It may be noted from Table 5, page 46, the subjects in Group T indicated a range of a high 57 to a low of 13, with a mean score of 38.66 and a standard deviation of 14.13, with fifty-eight percent of the pupils falling below the mean, while 42 percent were above the mean. It may be noted the group has remained heterogeneous within itself.

It may be observed from Table 5, page 46, the subjects in Group F indicated a range of a high 53 and a low of 17, a mean score of 33.66
## Table 5

Performance Scores of Two Groups of Subjects Working Under Different Sets of Instruction on the Stanford Achievement Test (Form M)

<table>
<thead>
<tr>
<th>Pupils</th>
<th>Group T</th>
<th>Group F</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>54</td>
<td>49</td>
</tr>
<tr>
<td>2</td>
<td>30</td>
<td>53</td>
</tr>
<tr>
<td>3</td>
<td>57</td>
<td>50</td>
</tr>
<tr>
<td>4</td>
<td>31</td>
<td>19</td>
</tr>
<tr>
<td>5</td>
<td>35</td>
<td>37</td>
</tr>
<tr>
<td>6</td>
<td>46</td>
<td>33</td>
</tr>
<tr>
<td>7</td>
<td>22</td>
<td>31</td>
</tr>
<tr>
<td>8</td>
<td>18</td>
<td>21</td>
</tr>
<tr>
<td>9</td>
<td>38</td>
<td>17</td>
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<td>10</td>
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<td>24</td>
<td>19</td>
</tr>
<tr>
<td>12</td>
<td>54</td>
<td>30</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th></th>
<th>Group T</th>
<th>Group F</th>
</tr>
</thead>
<tbody>
<tr>
<td>Totals</td>
<td>464</td>
<td>404</td>
</tr>
<tr>
<td>Means</td>
<td>38.66</td>
<td>33.66</td>
</tr>
<tr>
<td>SD</td>
<td>14.13</td>
<td>12.92</td>
</tr>
<tr>
<td>Difference Between the Means</td>
<td>5.00</td>
<td></td>
</tr>
<tr>
<td>Standard Error of the Difference</td>
<td>5.42</td>
<td></td>
</tr>
<tr>
<td>&quot;t&quot;</td>
<td>2.72</td>
<td>2.074</td>
</tr>
<tr>
<td>df</td>
<td>11</td>
<td>22</td>
</tr>
<tr>
<td>p(.05)</td>
<td>2.074</td>
<td>1.947</td>
</tr>
</tbody>
</table>
and a standard deviation of 12.92 with forty-two per cent of the pupils falling below the mean while fifty-eight per cent were above the mean. This group was a heterogeneous group.

A comparison of the results of Groups T and F on the Stanford Achievement Spelling Test (Form M), post-testing period.--The data shown on Table 5, page 46, indicated a difference between the means of 5.00; standard deviations of 14.13 and 12.92, respectively; standard error of the difference between the two means 5.42 and a "t" ratio of .92 with 22 degrees of freedom did not reach the 2.074 required for significance at the 5 per cent level of confidence; thus, there was no significant differences between the groups' results on post-spelling test of the multiple choice type as a result of the experimental period; and both groups have remained as nearly equal as a result of this test.

Results of Groups T and F on the Morrison-McCall Spelling Scale, List II post-testing period.--This test was used to seek the second purpose of this study which was to determine the effectiveness of the two methods through a comparison of the subjects' performance on spelling of words in isolation. It may be noted that in Table 6, page 48, the subjects in Group T indicated a range of high 37 and a low of 14, with a mean score of 23.17, a standard deviation of 7.55 and that forty-two per cent of the group fell below the means and fifty-eight above the mean. This group has remained constantly the same thus far throughout the period of the study.

It may be observed from Table 6, page 48, the subjects in Group F indicated a range of a high 43 and a low of 12, a mean score of 21.58,
<table>
<thead>
<tr>
<th>Pupils</th>
<th>Group T</th>
<th>Group F</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>34</td>
<td>34</td>
</tr>
<tr>
<td>2</td>
<td>25</td>
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</tr>
<tr>
<td>3</td>
<td>29</td>
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<td>16</td>
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<td>19</td>
<td>17</td>
</tr>
<tr>
<td>12</td>
<td>27</td>
<td>22</td>
</tr>
</tbody>
</table>

**Totals**

<table>
<thead>
<tr>
<th></th>
<th>Group T</th>
<th>Group F</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>273</td>
<td>259</td>
</tr>
</tbody>
</table>

**Means**

<table>
<thead>
<tr>
<th></th>
<th>Group T</th>
<th>Group F</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>23.17</td>
<td>21.58</td>
</tr>
</tbody>
</table>

**SD**

<table>
<thead>
<tr>
<th></th>
<th>Group T</th>
<th>Group F</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>7.55</td>
<td>6.85</td>
</tr>
</tbody>
</table>

**Difference Between Means**

<table>
<thead>
<tr>
<th></th>
<th>Group T</th>
<th>Group F</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>1.59</td>
<td></td>
</tr>
</tbody>
</table>

**Standard Error of the difference**

<table>
<thead>
<tr>
<th></th>
<th>Group T</th>
<th>Group F</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>2.33</td>
<td></td>
</tr>
</tbody>
</table>

**"t"**

<table>
<thead>
<tr>
<th></th>
<th>Group T</th>
<th>Group F</th>
</tr>
</thead>
<tbody>
<tr>
<td>&quot;t&quot;</td>
<td>0.55</td>
<td></td>
</tr>
</tbody>
</table>

**df**

<table>
<thead>
<tr>
<th></th>
<th>Group T</th>
<th>Group F</th>
</tr>
</thead>
<tbody>
<tr>
<td>df</td>
<td>22</td>
<td></td>
</tr>
</tbody>
</table>

**p(.05)**

<table>
<thead>
<tr>
<th></th>
<th>Group T</th>
<th>Group F</th>
</tr>
</thead>
<tbody>
<tr>
<td>p(.05)</td>
<td>2.074</td>
<td></td>
</tr>
</tbody>
</table>
a standard deviation of 6.85, and fifty per cent of the class fell below the mean and fifty per cent above. This group was two percentage points above Group T.

A comparison of the results of Groups T and F on the Morrison-McCall Spelling Scale (List II), post-testing period.—The data as shown on Table 6 indicated a difference between the means of 1.59, standard deviations, 7.55 and 6.85, respectively; a standard error of the difference, 2.38, with a "t" ratio of .55 with 22 degrees of freedom did not reach the 2.074 required for significance at the five per cent level of confidence; thus there was no significant difference between the groups' results on spelling of words in isolation.

Results of performances on Groups T and F on the Lincoln Spelling Test (Form D) post-testing period.—It may be observed from Table 7, page 50, the subjects of Group T indicated a range of a high 53 to a low of 7, with a mean score of 29.67, a standard deviation of 16.25 and forty-two per cent of the group fell below the mean and 58 per cent above the mean.

It may be observed from Table 7, page 50, the subjects of Group F indicated a range from a high of 54 to a low of 10, a mean of 25, a standard deviation of 14.59 and 66 2/3 per cent of the group fell below the mean and 33 1/3 per cent of the group fell above the mean. More scores were found here below the mean.

A comparison of the results of Groups T and F on the Lincoln Spelling Test (Form D) post-testing period.—The data as shown on Table 7, page 50, indicated a difference between the means of 4.67, standard
TABLE 7

PERFORMANCE SCORES OF TWO GROUPS OF STUDENTS WORKING UNDER DIFFERENT SETS OF INSTRUCTION ON THE LINCOLN SPELLING TEST (FORM D)

<table>
<thead>
<tr>
<th>Pupils</th>
<th>Group T</th>
<th>Group F</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>40</td>
<td>54</td>
</tr>
<tr>
<td>2</td>
<td>40</td>
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<td>3</td>
<td>45</td>
<td>44</td>
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<td>4</td>
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<td>5</td>
<td>40</td>
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<td>6</td>
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<td>7</td>
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<td>8</td>
<td>7</td>
<td>10</td>
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<td>9</td>
<td>20</td>
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<tr>
<td>10</td>
<td>53</td>
<td>17</td>
</tr>
<tr>
<td>11</td>
<td>13</td>
<td>19</td>
</tr>
<tr>
<td>12</td>
<td>41</td>
<td>20</td>
</tr>
</tbody>
</table>

Totals 356 300
Means 29.67 25
SD 16.25 14.59

Difference between means 4.67
Standard Error of the difference 6.16
"t" 2.76
df 22
p(.05) 2.074
deviations, 16.26 and 14.59, respectively; a standard error of the
difference between the means, 6.16 and a "t" ratio of .76, with 22
degrees of freedom did not reach the 2.074 required for significance at
the five per cent level; therefore, as a result of the study, there
is no significant difference in the two methods as measured by the
subjects' performances on spelling test that require placement of the
spelling of words in meaningful sentences.

A Summary of the Subjects' Performance
Overall Testing Period

In answer to the purpose as to the subjects' performances through
a comparison of over-all tests, the writer will summarize as follows.
Group T indicated on the Stanford Achievement Test (Form K and M), the
study showed some degree of improvement; but none of significance with
a range of high 50-57, a low of 13-18, mean scores of 34.5 and 38.66
and standard deviations of 12.55 and 14.13, respectively.

Group F indicated on the Stanford Achievement Test (Forms K
and M), a high of 46 and 53, a low of 13 and 17, means of 29.8 and 33.66,
standard deviations of 3.30 and 12.92, respectively. As a result of
the testing, there was no significant difference between the groups.

Group T's over-all performance on the Morrison-McCall Tests,
1 and 2, indicated a range of high 31-37, a low of 10-14, mean scores
of 21.4 - 23.17 and standard deviations of 7.35 - 7.55, respectively.
This indicated to some degree improvement due to the study.

Group F's performances on the Morrison-McCall Tests, 1 and 2,
indicated a range of high 29 - 34, a low of 10 - 12, mean scores of
18.50 - 21.58 and standard deviations of 7.67 - 6.85, respectively.

Group T's performances on the Lincoln Spelling Test, Forms B and D indicated a range of high 49 - 53, a low of 6-7, mean scores of 26.7 and 29.67, standard deviations, 15.65 and 1.25.

Group F indicated on the Lincoln Spelling Test (Forms B and D) a range of high 54 and 54, a low of 2 and 10, mean scores of 20.9 and 25.00, standard deviations of 16.18 and 14.59, respectively.

As a result Groups T and F's test performances showed some degree of improvement as a result of the study which would be expected of any study. There was no significant difference in the two methods as to the results of the groups performances on the tests.

The findings, conclusions, implications and recommendations pertaining to the data presented in this chapter are discussed in Chapter III.
CHAPTER III
FINDINGS, CONCLUSIONS, IMPLICATIONS AND RECOMMENDATIONS

Introduction

Authorities state that spelling is one of the most important tool subjects for oral and written communication, and those who teach it must recognize the importance of spelling. Spelling is a skill which, if properly learned, facilitates written expression and makes learning more meaningful and purposeful. The necessity of correct spelling in all forms of written expression is most vital to those who have the occasion to write; hence, everyone should aspire to high attainment in spelling, as it is a demand for all.

General Design

This study was designed to make a comparison of two methods of teaching spelling: the textbook method and the functional method. And the purpose was to compare the two methods as to their effectiveness on the subjects as a result of the subjects' performances on the pre-tests and post-tests.

This study was conducted at the Emma Clarissa Clement Elementary School, 180 Holly Road, Atlanta, Georgia, for a period of six weeks. Permission was obtained from the proper authorities to conduct the study.
The experimental method of research was employed, utilizing the group technique and employing tests as the main investigative tool. The instruments used included the following: The Kuhlmann-Anderson Test (Form D), sixth Edition by F. Kuhlmann and Rose G. Anderson; The Stanford Achievement Test (Intermediate Battery, Forms J, K and M) by T. L. Kelley, Richard Hadden, Eric F. Gardner, Lewis M. Terman, and Giles M. Ruch; The Morrison-McCall Spelling Scale by J. Cayce Morrison and William A. McCall; and the Lincoln Intermediate Spelling Test by A. L. Lincoln.

Summary of Related Literature

The summary of related literature which made distinct contributions to this study follows.

1. There is a close connection between spelling achievement and reading abilities.

2. Children learn to spell and use words for which they have one or more meanings.

3. Many abilities required for vocabulary development are also used in correct spelling.

4. Several authorities stated that there is a tendency for a good speller to have a superior vocabulary.

5. Learning to spell and competence in spelling are related to oral word usage, pronunciation, and articulation. A child tends to write as he speaks.
6. Children, in developing their spelling through writing, tend to have favorable attitudes toward spelling, reading, written expression as well as oral. Writing which is done in content areas tends to motivate and reinforce the child's learning of spelling.

7. Many authorities agree there is a growing need for continued research on spelling vocabulary, word frequency counts, and grade placement of words in spelling lists.

Summary of Procedures

This study began February 20, 1962, and ended April 3, 1962. The experimental period was six weeks with each group having 15 minute periods. Prior to the beginning of the study, the subjects were orientated to the two methods to be used in the study. Neither group was exposed to each other during the experimental period.

The textbook group was taught by the following procedures as outlined by Betts and Killgallon, The Language Arts Spellers. They were as follows:

1. First day (story and new words)
   The subjects read the story and answered questions about the story. They studied the new words in the story.

2. Second day (letters and sounds)
   The subjects followed directions given by the authors.

3. Third day (C Test) or mid-week test.
The subjects wrote each new word after teacher pronounced it. Words were checked to see if they were correctly spelled. The subjects crossed out words missed and wrote them in notebooks for study.

4. Fourth day (words and meaning)
The subjects followed directions and reviewed words missed on C Test.

5. Fifth day (The final test)
The subjects checked words, studied misspelled words, and learned to spell them.

There were 16 words per week to each lesson. The functional group gathered words of difficulty which grew out of all content areas they encountered during this period. These words were more of a personal need to the subjects, and the subjects performed in smaller groups as well as individually.

The operational procedures were to organize the list of words in the groups as much as possible, according to nouns, action words and descriptive words. The subjects used the dictionary to understand the correct pronunciation, spelling, and meaning of words. As for the varied experiences they encountered in group activities and individualized, the subjects performed as follows:

1. The subjects wrote sentences using the words.

2. They gathered pictures, read newspaper articles, magazines and catalogs, and other reading materials related to the list of words they studied. This material was discussed
and words underlined in the article.

3. Activity books were made to keep a record of their experiences.

4. A field trip was made and subjects wrote short paragraphs using as many of the words as possible being studied at the time of the trip.

5. Other activities involved dramatization, pantomime, puzzles, sentence completion, word completion, matching of definitions, poetry, short stories, and games.

Major Findings of the Study

The summary of the basic findings of this study is reported as follows: differences of the two groups of subjects as reflected by matching variables; comparison of the two methods as measured by multiple choice type; comparison of the two methods as measured by use of words in isolation; comparison of the two groups of subjects' results of words used in meaningful sentences; and the overall test performances.

The findings regarding the matching of variables for Groups T and F are summarized as follows: In each instance the differences were tested against a "t" ratio of 2.074 which is required for significance at the five per cent level of confidence with 22 degrees of freedom.

1. On the Stanford Reading Test, Form J, groups T and F indicated similar ranges with a high of 64-66, low of 31 and 29, respectively; means of 38.58 and 38.17, respectively. Both groups indicated below average in reading with
the majority of the scores below the mean.

2. On the Kuhlmann-Anderson Intelligence Test (Form D), Groups T and F indicated similar ranges from high 119-120, low of 82 and 83, respectively; the mean scores of 93.17 and 97.33; standard deviations, 10.36 - 11.04 and standard errors, 3.13 and 3.19, respectively. This indicated both groups were equivalent to each other intellectually.

3. The findings regarding the performance of Groups T and F on the Stanford Spelling Test, Form M, indicated a range of high 57-53, low 18-18, respectively; the mean scores of 33.66-33.66 with a difference between the means of 5.42, respectively; and standard deviations of 14.14 - 12.29 with a 1.21 difference and a "t" ratio of .92 with 22 degrees of freedom at the five per cent level of confidence. There was no difference as a result of the subjects' performance on the multiple choice spelling test.

4. The findings regarding the effectiveness of the two methods through a comparison of the subjects' performance on the Morrison-McCall Test, List II requiring the spelling of words in isolation indicated by Groups T and F revealed there was no significant difference. The results indicated in range a high 37-34, a low of 14-12; respectively; scores, 23.17 - 21.58; a difference between the mean scores, 159; standard deviations 7.55 - 6.85, with 1.30 points difference, respectively; a "t" ratio .55 with 22 degrees
of freedom at the five per cent level of confidence. Thus, there was no significant difference between the groups in the use of words in isolation.

5. The findings in regard to the two methods through a comparison of the subjects' performance on the Lincoln Spelling Test, Form D regarding the spelling of words used in a meaningful sentence are as follows: Groups T and F indicated a range of high 53-54, a low of 7-12, respectively; mean scores of 29.67-25.00, respectively; a difference between the means of 4.67; standard deviations, 16.26 - 14.59, with a difference of 1.65; a "t" ratio .76 with 22 degrees of freedom did not reach the 2.074 required for significance at the five per cent level; hence, there was no significant difference in the results of the subjects' performance on tests using words in meaningful sentences.

6. A summary of the findings in regard to the subjects' overall test performance indicated there was no significant difference as a result of the tests given.

Conclusions

From the analysis and interpretation of this data, the following conclusions were drawn:

1. As a result of these comparisons it was concluded that skill in the choice of the correct spelling of words which are presented among several misspellings can be improved through
either the textbook or the functional method of instruction, but within this fifth grade population neither seemed more effective than the other.

2. Further, as a result of these comparisons, it was concluded that skill and techniques in the spelling of words in isolation should be improved greatly through either the textbook or functional method instruction as it was indicated in this fifth grade group neither method appeared more effective than the other.

3. Moreover, the results of these comparisons indicated that there is a need for improvement in skills in the spelling of words in meaningful sentences in the textbook and functional method, as neither method seemed to be more significant than the other.

4. As a result of the over-all test, comparisons indicated that skills should be improved in all phases of spelling, and neither the textbook method nor functional method showed any degree of effectiveness over the other.

5. As it was indicated, the textbook and functional groups showed some progress as a result of the experimental study. The pupils selected for each group were not homogeneous but relatively equivalent and, therefore, permitted the conclusion that, neither the textbook nor the functional method of instruction appeared more effective than the other.
Implications

From the analysis of findings and conclusions of this research, the following implications seemed feasible:

1. Since it was revealed that neither the textbook method nor the functional method was superior to the other, it appeared that either method could be utilized by teachers of fifth grade pupils at the Emma Clarissa Clement Elementary School.

2. Implementation of an enriched program which combines the functional and textbook method seems to hold promise of improvement in the teaching of spelling to similar groups of fifth grade pupils.

3. The use of several techniques of appraising progress in spelling appeared to be an effective approach to an evaluation of methodology. It may be stated further, however, that investigations into other techniques are inferred.

4. It may be possible that a study identical to this one may reveal different results if longer experimental periods are used. Also, it may be of value if a study is made similar to this one in which pupils of all levels are used as subjects.

5. It may be of value if the time block is lengthened; since spelling involves all content areas.
Recommendations

The findings, conclusions and implications of this study seemed to provide a basis for the following recommendations:

1. Teachers may consider the idea of checking the two methods at various levels of instruction as well as with pupils at different ability levels.

2. Spelling instruction should be attacked with a more meaningful approach in addition to the usual emphasis on the sequential program provided through the textbook.

3. A periodic formal and informal testing program may prove to be of value, in order to provide continuous evaluation of pupils' levels of achievement in spelling in all content areas.

4. The spelling program should permit wide variance in time blocks, in levels of lists used, and in general content areas.

5. A study similar to this one should be done in which longer experimental periods are used and increased focus on content is initiated.
FORMULAS

1. Mean
   \[ M' = \frac{\Sigma x'}{n} \]

2. Standard Deviation
   \[ \sqrt{\frac{\Sigma x^2}{n-1}} \]

3. Standard Error of the Difference between Two Means
   \[ \sqrt{\frac{\sigma_{m_1}^2 + \sigma_{m_2}^2}{n_1 + n_2 - 2}} \left( \frac{1}{n_1} + \frac{1}{n_2} \right) \]

4. Standard Error of the Difference between Two Means (Two Groups of Subjects Working under Different Sets of Instructions)
   \[ \sqrt{\frac{\Sigma x_i^2 + \Sigma x_j^2}{n_1 + n_2 - 2}} \left( \frac{1}{n_1} + \frac{1}{n_2} \right) \]

5. Standard Error of the Mean
   \[ \frac{\sigma}{\sqrt{n-1}} \]

6. Difference between the Two Means
   \[ \bar{x}_1 - \bar{x}_2 \]

7. "t"
   \[ \frac{\text{Difference between the Two Means}}{\text{Standard Error of the Difference between Two Means}} \]
GENERAL DIRECTIONS

Select for testing purposes any one of the eight lists of 50 words each given in this booklet.

The eight lists are of equal difficulty, so that all directions given herein apply equally to all of them.

Use the illustrative sentences in which these words are contained. Do not use any others.

Before beginning the test, remove all distracting elements from the environment and make pupils as comfortable as possible. Provide against any disturbances while the test is in progress. Preferably there should be no visitors.

Follow with literal exactness the instructions for giving the test. Avoid preliminary coaching, special helps during test, and unstandardized introductory remarks. Secure attention and cooperation of pupils by your own poise and pleasant manner.

Give directions distinctly, at moderate speed, with careful attention to emphasis, loudly enough for all pupils in the room to hear without difficulty, and confidently enough to secure instant obedience from every pupil. Insist courteously but firmly upon this prompt obedience from the start.

Pronounce all words to all pupils. Do this regardless of whether Grade 2 or Grade 8 or a mixture of several grades is being tested. Pupils will often surprise their teachers by spelling words normally too difficult or by failing to spell words normally too easy for their grade. While the same scale is used for measuring all grades, the norms for upper-grade pupils are much higher than for lower-grade pupils.

Practice pronouncing the words until sure of the exact pronunciation of each and until sure of your ability to enunciate clearly without distorting the correct pronunciation. Use Webster's New International Dictionary as the standard.

Prevent copying by carefully watching any one who attempts to do so. Do not distract others by oral reprimands while a word is being spelled.
In instructions to pupils

Have pupils clear desks. Provide them with sharpened pencils and uniform paper. Have a few extra pencils available. Have each child write at the top of his page his name, age in years at last birthday, date of birth, school, teacher's name, date, grade, and whether in the first half or second half of the grade.

Have pupils number the lines on their papers from 1 to 50.

Read to pupils: "We will now have a spelling lesson. There will be 50 words. I will pronounce each word, use it in a sentence, and pronounce it a second time. If you do not understand any word, leave the space blank and wait for the next word. Try to spell each word. Be sure to dot the i's and cross the t's." In rooms having two or more grades the examiner will add, "Every one will spell the same words."

Pronounce each word as in the following illustration: "Your — Your books are in the desk — Your." Each examiner will pronounce words at such rate as seems best suited to the class.

Collect papers as soon as children have written the last word.

If, at the close of the test, younger pupils should seem bewildered and confused, the examiner should smilingly encourage them by explaining that he didn't expect them to spell all the words. He should endeavor to close the test period leaving the children uniformly happy.

Directions for Scoring

Mark each word either right or wrong. The standard of correctness is absolute accuracy, in order to avoid subjective scoring.

Where two or more spellings are allowed for a word by any standard dictionary, count either spelling as correct.

Count as wrong if the letter "i" does not have a dot or if the letter "t" is not crossed, unless it be a special "final t" construction.

Do not give credit for spelling words not pronounced; e.g., "tops" for the word "top," or "men" for the word "man."

If a child attempts to rewrite a word, consider the obvious intention of the child as the spelling to be scored.

Pay no attention to capitalization.

If in actual doubt as to the child's spelling, count as wrong.

Count the number of words spelled correctly by each pupil.

Directions for Recording

In order to record the scores made by pupils, it is suggested that the teacher or examiner draw up a class record similar to the sample shown on the last page. On this class record will be written the name of the school, grade, etc., the list number and date of the test, the name of each pupil taking the test, his age in years and months, the number of words correct, and, if desired, his Ts, Gs, and Cs, or spelling age. The meanings of these symbols are given below.

If a large sheet of paper is used, the last four columns may be repeated so as to provide for recording two or three scores of each pupil. This will save writing the names and ages again and bring the scores closer together for reference. It will be understood that the age of the child is his age on the date of the first test.
Directions for Interpreting Scores

When the spelling papers are scored, the classroom teacher will want to ask four questions:

1. How does the class or individual pupil compare in spelling achievement with the norms obtained from testing thousands of pupils of the same grade?
2. What is the grade status of the individual pupil or of the class? That is, for what grade is the spelling ability of the pupil or class normal?
3. How does the pupil compare in spelling achievement with other pupils of the same age?
4. For what age is the spelling ability of the pupil normal?

Two methods are offered for answering the first question. By the first method the teacher simply compares the score of the pupil or class with the grade norms given in Table 1. For example, Table 6 shows the scores of some sixth-grade pupils. Pupil A’s score was 16 words spelled correctly. Comparing this score with the grade norms in Table 1, we see that it is less than the midyear average for third-grade pupils. Pupil C of the same table spelled 37 words correctly, which is better than the standard for sixth-grade pupils of midyear. The class average was 31.4, which was nearer to the fifth-grade norm than to the sixth-grade norm. This method answers roughly the second question as to the grade status of the pupil or class.

The second method is the more exact one. It is known as the T-score method and is explained in the section on “T-score in spelling,” below, and “Grade status in spelling,” page 6. The T-score method enables the teacher to answer the second question also with greater precision.

The T-score method is also used to answer the third question. A measure of a child’s spelling achievement in comparison with that of other children of his own age is known as his “Brightness in Spelling” and is represented by the symbol “Bs.” The section on “Brightness in spelling,” page 5, explains how to find the Bs of a pupil or class.

A convenient method for answering the fourth question is to find what is known as the spelling age of the pupil. Thus, a pupil whose spelling achievement is just equal to that of a 10-year-old child is said to have a spelling age of 10 years (or 120 months) no matter what his actual age may be. The section “Spelling age,” page 4, explains how to find the spelling age of a pupil.

<table>
<thead>
<tr>
<th>Grade</th>
<th>Average number of words spelled correctly</th>
</tr>
</thead>
<tbody>
<tr>
<td>3</td>
<td>11</td>
</tr>
<tr>
<td>4</td>
<td>18</td>
</tr>
<tr>
<td>5</td>
<td>24</td>
</tr>
<tr>
<td>6</td>
<td>30</td>
</tr>
<tr>
<td>7</td>
<td>35</td>
</tr>
<tr>
<td>8</td>
<td>40</td>
</tr>
<tr>
<td>9</td>
<td>44</td>
</tr>
</tbody>
</table>

These norms represent average achievement for 57,337 pupils in rural and village schools. There were approximately 8000 pupils tested in each grade except the ninth. The ninth-grade score represents the achievement of nearly 1000 pupils.

T score in spelling. The score of a pupil in any test may be expressed as a T score in spelling (Ts) by means of Table 2.

1 A term introduced by William A. McCall in “Uniform Method of Scale Construction,” Teachers College Record, January, 1921.
A Ts of 50 denotes the median spelling ability of unselected pupils whose age last birthday was 12 years. The units of Ts above and below 50 indicate theoretically equal increments of spelling ability, according to the assumption that the spelling ability of 12-year pupils is distributed according to the law of normal distribution. Each 10 units of T-score represent 1 SD (standard deviation) of distribution of 12-year-olds. Any pupil or class, for example, whose Ts is 70 has an ability that is 20 T (or 2 SD) above the mean ability of 12-year-olds.

Find the pupil's total number of words correct in the first column of Table 2 and read the corresponding Ts. This is the pupil's T score in spelling. Thus, the first pupil in Table 6 spelled 16 words correctly, which, according to Table 2, corresponds to a Ts of 36. Table 2 and all others apply to any list.

### Table 2

<table>
<thead>
<tr>
<th>Words Correct</th>
<th>Ts</th>
<th>Spelling Age</th>
<th>Gs</th>
<th>Words Correct</th>
<th>Ts</th>
<th>Spelling Age</th>
<th>Gs</th>
<th>Words Correct</th>
<th>Ts</th>
<th>Spelling Age</th>
<th>Gs</th>
</tr>
</thead>
<tbody>
<tr>
<td>0</td>
<td>17</td>
<td>84</td>
<td>1.0</td>
<td>18</td>
<td>37</td>
<td>116</td>
<td>3.5</td>
<td>36</td>
<td>52</td>
<td>156</td>
<td>6.8</td>
</tr>
<tr>
<td>1</td>
<td>20</td>
<td>85</td>
<td>1.1</td>
<td>19</td>
<td>38</td>
<td>118</td>
<td>3.7</td>
<td>37</td>
<td>53</td>
<td>159</td>
<td>7.0</td>
</tr>
<tr>
<td>2</td>
<td>22</td>
<td>87</td>
<td>1.5</td>
<td>20</td>
<td>39</td>
<td>120</td>
<td>3.9</td>
<td>38</td>
<td>54</td>
<td>162</td>
<td>7.3</td>
</tr>
<tr>
<td>3</td>
<td>24</td>
<td>89</td>
<td>1.7</td>
<td>21</td>
<td>40</td>
<td>122</td>
<td>4.1</td>
<td>39</td>
<td>55</td>
<td>165</td>
<td>7.5</td>
</tr>
<tr>
<td>4</td>
<td>25</td>
<td>90</td>
<td>1.8</td>
<td>22</td>
<td>40</td>
<td>124</td>
<td>4.2</td>
<td>40</td>
<td>56</td>
<td>168</td>
<td>7.7</td>
</tr>
<tr>
<td>5</td>
<td>26</td>
<td>92</td>
<td>1.9</td>
<td>23</td>
<td>41</td>
<td>126</td>
<td>4.3</td>
<td>41</td>
<td>57</td>
<td>171</td>
<td>8.0</td>
</tr>
<tr>
<td>6</td>
<td>27</td>
<td>94</td>
<td>2.0</td>
<td>24</td>
<td>42</td>
<td>128</td>
<td>4.5</td>
<td>42</td>
<td>58</td>
<td>174</td>
<td>8.4</td>
</tr>
<tr>
<td>7</td>
<td>28</td>
<td>96</td>
<td>2.1</td>
<td>25</td>
<td>43</td>
<td>130</td>
<td>4.7</td>
<td>43</td>
<td>60</td>
<td>177</td>
<td>8.8</td>
</tr>
<tr>
<td>8</td>
<td>29</td>
<td>98</td>
<td>2.2</td>
<td>26</td>
<td>44</td>
<td>132</td>
<td>4.9</td>
<td>44</td>
<td>61</td>
<td>180</td>
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</tr>
<tr>
<td>9</td>
<td>30</td>
<td>99</td>
<td>2.3</td>
<td>27</td>
<td>44</td>
<td>135</td>
<td>5.1</td>
<td>45</td>
<td>63</td>
<td>184</td>
<td>9.8</td>
</tr>
<tr>
<td>10</td>
<td>31</td>
<td>101</td>
<td>2.4</td>
<td>28</td>
<td>45</td>
<td>137</td>
<td>5.2</td>
<td>46</td>
<td>65</td>
<td>188</td>
<td>10.5</td>
</tr>
<tr>
<td>11</td>
<td>32</td>
<td>103</td>
<td>2.5</td>
<td>29</td>
<td>46</td>
<td>139</td>
<td>5.4</td>
<td>47</td>
<td>67</td>
<td>192</td>
<td>11.2</td>
</tr>
<tr>
<td>12</td>
<td>32</td>
<td>104</td>
<td>2.6</td>
<td>30</td>
<td>47</td>
<td>142</td>
<td>5.6</td>
<td>48</td>
<td>69</td>
<td>196</td>
<td>11.7</td>
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<tr>
<td>13</td>
<td>33</td>
<td>106</td>
<td>2.7</td>
<td>31</td>
<td>48</td>
<td>144</td>
<td>5.8</td>
<td>49</td>
<td>72</td>
<td>200</td>
<td>12.5</td>
</tr>
<tr>
<td>14</td>
<td>34</td>
<td>108</td>
<td>2.9</td>
<td>32</td>
<td>48</td>
<td>146</td>
<td>6.0</td>
<td>50</td>
<td>77</td>
<td>204</td>
<td>13.0</td>
</tr>
<tr>
<td>15</td>
<td>35</td>
<td>110</td>
<td>3.1</td>
<td>33</td>
<td>49</td>
<td>149</td>
<td>6.2</td>
<td></td>
<td></td>
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<tr>
<td>16</td>
<td>36</td>
<td>112</td>
<td>3.3</td>
<td>34</td>
<td>50</td>
<td>152</td>
<td>6.4</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>17</td>
<td>36</td>
<td>114</td>
<td>3.4</td>
<td>35</td>
<td>51</td>
<td>154</td>
<td>6.6</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Table 3 gives a further interpretation of T scores. It shows the percentage of 12-year-olds (pupils between 12 and 13) whose T scores are exceeded by a T score of 25, 30, 35, etc. Thus, a pupil making a T score of 65 exceeds 93 per cent of 12-year-olds in spelling ability.

### Table 3

<table>
<thead>
<tr>
<th>T score: 25 30 35 40 45 50 55 60 65 70 75</th>
<th>Percentage of 12-year-olds exceeding: 1 2 7 16 31 50 69 84 93 98 99</th>
</tr>
</thead>
</table>

Spelling age. A score of 26 words correct is the normal score for the age of just 11 years (132 months). Any pupil, therefore, making a score of 26 is said to have a spelling age of 132 months. In the third column of Table 2 is given the spelling age corresponding to each score.

A spelling age corresponds to a mental age obtained by a test of mental ability. A pupil should have a spelling age equal to his mental age, provided his spelling ability is on a par with his mental ability.
The T-score in spelling is the TS of the pupil; if it is minus, subject it (amount necessary to add to the TS that is normal for that age to get 50). If a T of 50 is the TS of a pupil, and his age in Table 4 and note the correction needed to correct 12 years, 6 months old, then the brightness in spelling is the T-score of the pupil. Therefore, if a pupil of 12 years, 6 months makes a T of 50, then he is brighter than the normal child. The T of any other pupil would increase two points from 12 years, 6 months, to the T of 50 between 12 years, 6 months, and 12 years, 6 months. The normal child makes a T of 50 between 12 years, 6 months, and 12 years, 6 months.

Thus, as shown in Table 4, the T score that is just normal for a pupil 12 years, 6 months old is 50. Now it is assumed that if the normal child’s T increases 2 points from 12 years, 6 months, to 12 years, 6 months, the brightness of any pupil in spelling in terms of T is measured in Table 4, and note the correction needed to correct for the age of 12 years, 6 months. Therefore, a pupil of 12 years, 6 months makes a T of 50 between 12 years, 6 months, and 12 years, 6 months.

The brightness of any pupil in spelling in terms of T is measured in Table 4, and note the correction needed to correct for the age of 12 years, 6 months. Therefore, a pupil of 12 years, 6 months makes a T of 50 between 12 years, 6 months, and 12 years, 6 months.
Thus, the first pupil in Table 6 is 13 years, 2 months old and made a Ts of 36. The correction for the age of 13 years, 2 months as shown in Table 4 is $-2$. Therefore, this pupil’s Bs is $36 - 2 = 34$.

The normal Bs for all ages is 50. Any pupil making a Bs above 50 is brighter than normal in spelling. A pupil making a Bs of 40 is 10 T (or 1 SD) below the mean of his own age group in spelling ability. Table 3 shows also the significance of a Bs. Thus a Bs of 60 indicates that the pupil exceeds in spelling ability 84 per cent of pupils, not 12 years old but of his own age. A Bs of 75 means that a pupil is 25 T (or 2.5 SD) above the mean spelling ability of pupils of his own age. According to Table 3, such an individual is shown to be extremely bright in spelling, since he exceeds 99 per cent of pupils of his own age group in spelling ability. In like manner the Bs for a class shows the brightness in spelling of that class as a whole.

**Both Ts and Bs are needed.** Ts gives a measure of total spelling ability and incidentally shows how much each pupil or class Ts is above or below the mean Ts of 12-year-olds. A Ts scale is used primarily for the purpose of measuring growth in ability from month to month and year to year.

Of course a 9-year-old pupil or class might have a Ts much below 50 and still be doing exceptionally satisfactory work. There is needed some score which makes allowance for the fact that a pupil or class is younger or older than 12 years, 6 months. The Bs correction automatically makes just this allowance, and the Bs shows pupil or class ability in comparison with pupils or classes of the same age. A young pupil may have a small Ts and a large Bs, and an old pupil may have a large Ts and a small Bs. A pupil or class Ts grows larger from month to month and year to year, whereas the Bs changes little or not at all.

**Grade status in spelling (Gs).** The number of words any pupil spells correctly or the Ts of any pupil may be expressed in terms of Grade Status in Spelling (Gs). Thus, in Table 2 the Gs corresponding to a score of 18 is given as 3.5. This means that a score of 18 is normal for the third grade at the end of the fifth month of instruction. A Gs of 3.7 means spelling ability normal for the third grade after seven months of instruction, etc.

**Classification in spelling (Cs).** In order to compare the grade status of one pupil or class taking the test at one time of year, with that of another pupil or class taking the test at another time of year, it is necessary to refer their score to some definite time of year. The Gs that a pupil has or will have at the middle of the year (fifth month) is called his Classification in Spelling (Cs). Thus, if September is the first month of the school year, the fifth month will be January, and it is assumed that if a pupil (see first pupil in Table 6) has a Gs of 3.3 in November, he will have a Gs of 3.5 in January (middle of the year). He is said, therefore, to have a Cs of 3.5. Similarly, if a pupil has a Gs of 6.4 in November (see second pupil in Table 6) his Cs (Gs in January) is 6.6. Assuming the pupil’s Gs increases 0.1 each month, as would be expected, his Cs remains 6.6 throughout the year. The normal Cs for Grade 6 is 6.5. This pupil, therefore, is always just 0.1 in Cs, or one month, ahead of the normal ability of the sixth grade. The normal Cs for all sixth-grade pupils is 6.5 as long as they remain in the sixth grade; the norm for all seventh-grade pupils is 7.5 throughout the year, etc.

Table 5 shows the correction to be applied to the Gs of a pupil to find his Cs.
Thus, if a pupil is tested in the first month, add .4 to his Gs to find his Cs; if tested in the second month, add .3; if tested in the sixth month, subtract .1; etc.

<table>
<thead>
<tr>
<th>Month</th>
<th>Cs Correction</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>+.4</td>
</tr>
<tr>
<td>2</td>
<td>+.3</td>
</tr>
<tr>
<td>3</td>
<td>+.2</td>
</tr>
<tr>
<td>4</td>
<td>+.1</td>
</tr>
<tr>
<td>5</td>
<td>0</td>
</tr>
<tr>
<td>6</td>
<td>-.1</td>
</tr>
<tr>
<td>7</td>
<td>-.2</td>
</tr>
<tr>
<td>8</td>
<td>-.3</td>
</tr>
<tr>
<td>9</td>
<td>-.4</td>
</tr>
<tr>
<td>10</td>
<td>-.5</td>
</tr>
</tbody>
</table>

**TABLE 5**

**Class standing.** To find the Ts, Bs, Gs, and Cs of the class or grade as a whole, find the mean (average) age and mean Ts of the class. From these values find the class Bs, Gs, and Cs in the same manner as would be done in the case of an individual having that age and Ts, as shown in Table 6. Since the pupils whose scores are given in Table 6 are sixth-grade pupils, their grade norm in Cs is 6.5. The first pupil's Cs is only 3.5. This means that his spelling ability is just normal for the third grade. He is, therefore, three full grades below the norm for the sixth grade. The class as a whole is .4 Cs or 4 months below normal for sixth grades in general. In this connection it must be remembered that classes differ in age. The mean age of this class is less than the mean age of the ordinary sixth grade, and the class Bs shows that it is practically a normal class for its mean age.

**TABLE 6. Hypothetical Scores of Low-Sixth-Grade Pupils Tested in November, Showing the Corresponding Values of Ts, Bs, Gs, and Cs**

<table>
<thead>
<tr>
<th>NAME</th>
<th>Age Yrs. Mos.</th>
<th>Words Correct</th>
<th>T’s</th>
<th>C’s</th>
</tr>
</thead>
<tbody>
<tr>
<td>A</td>
<td>13 2</td>
<td>16</td>
<td>56</td>
<td>34</td>
</tr>
<tr>
<td>B</td>
<td>12 6</td>
<td>34</td>
<td>50</td>
<td>50</td>
</tr>
<tr>
<td>C</td>
<td>10 7</td>
<td>37</td>
<td>53</td>
<td>60</td>
</tr>
<tr>
<td>D</td>
<td>11 4</td>
<td>34</td>
<td>50</td>
<td>54</td>
</tr>
<tr>
<td>E</td>
<td>13 5</td>
<td>36</td>
<td>52</td>
<td>48</td>
</tr>
<tr>
<td>Class</td>
<td>12 2</td>
<td>48.2</td>
<td>49.2</td>
<td>5.9</td>
</tr>
</tbody>
</table>

**Accuracy of scale scores.** All the words in each list of this spelling scale were selected from Ayres' Spelling Scale and Buckingham's Extension of Ayres' Spelling Scale, in such a way as to make all lists equally difficult, and the words were required in addition to appear among the 5000 most commonly used words as reported in Thorndike’s Word Book.

To test this equivalence, List 1 was applied to 33,299 pupils, List 2 to 10,542 pupils, and List 3 to 13,490 pupils. These pupils were a random sampling from Grades 2 through 9 in the rural and village schools of New York State. Since the three T scales (not necessarily the individual words) proved to be almost exactly identical, we have assumed that all lists are similarly equivalent, since all were constituted in the same way. Also we have combined the data from the three lists so that the final T, B, and C scales are based upon 57,331 pupils.

**Acknowledgments**

For aid in the preparation of these scales we gratefully acknowledge our obligation to Leonard P. Ayres, B. R. Buckingham, and Edward L. Thorndike, whose material we have so freely drawn upon. For applying the tests and scoring the papers we take pleasure in expressing our appreciation to the cooperating teachers and superintendents of the New York State rural and village schools.
LIST 1

1. run
2. top
3. red
4. book
5. sea
6. play
7. lay
8. led
9. add
10. alike
11. mine
12. with
13. easy
14. shut
15. done
16. body
17. anyway
18. omit
19. fifth
20. reason
21. perfect
22. friend
23. getting
24. nearly
25. desire
26. arrange
27. written
28. search
29. popular
30. interest
31. pleasant
32. therefore
33. folks
34. celebration
35. minute
36. divide
37. necessary
38. height
39. reference
40. career
41. character
42. separate
43. committee
44. annual
45. principle
46. immense
47. judgment
48. acquaintance
49. discipline
50. lieutenant

The boy can run.
The top will spin.
My apple is red.
I lost my book.
The sea is rough.
I will play with you.
Lay the book down.
He led the horse to the barn.
Add these figures.
These books are alike.
That bicycle is mine.
Mary will go with you.
Our lessons are not easy.
Please shut the door.
Has he done the work?
The chest is a part of the body.
I shall go anyway.
Please omit the next verse.
This is my fifth trip.
Give a reason for being late.
This is a perfect day.
She is my friend.
I am getting tired.
Nearly all of the candy is gone.
I have no desire to go.
Please arrange a meeting for me.
I have written four letters.
Search for your book.
He is a popular boy.
Show some interest in your work.
She is very pleasant.
Therefore I cannot go.
My folks have gone away.
There will be a celebration today.
Wait a minute.
Divide this number by ten.
It is necessary for you to study.
What is your height?
He made reference to the lesson.
The future holds a bright career for you.
He has a good character.
Separate these papers.
The committee is small.
This is the annual meeting.
The theory is wrong in principle.
The man is carrying an immense load.
The teacher’s judgment is good.
He is an acquaintance of mine.
The army discipline was strict.
He is a lieutenant in the army.
1. can
   I can go with you.
2. ten
   I have ten cents.
3. old
   How old are you?
4. six
   I am six years old.
5. ice
   He slipped on the ice.
6. child
   The child is ill.
7. his
   His arm was broken.
8. that
   That is my dog.
9. far
   How far are you going?
10. form
    Form a circle.
11. glad
    I am glad to see you.
12. same
    Her name is the same as mine.
13. night
    Owls come out at night.
14. cent
    I haven't a cent.
15. within
    Keep within the law.
16. point
    Point toward the north.
17. money
    How much money have you?
18. picture
    Whose picture is this?
19. change
    Do not change your position.
20. number
    Number your papers.
21. struck
    He was struck by lightning.
22. personal
    It is a personal matter.
23. address
    Do you know her address?
24. several
    I have several hats.
25. known
    I have known her a week.
26. their
    Their homes were flooded.
27. perhaps
    Perhaps you are right.
28. popular
    Golf is a popular game.
29. against
    He fell against the wall.
30. treasure
    The hidden treasure was found.
31. investigate
    I will investigate for you.
32. certain
    I am certain of the date.
33. really
    Are you really going?
34. conference
    The teachers had a conference.
35. business
    His business is important.
36. citizen
    Mr. Smith is a good citizen.
37. elaborate
    The decorations were elaborate.
38. association
    They formed a large association.
39. evidence
    We have plenty of evidence.
40. secretary
    My secretary is accurate.
41. character
    He has a good character.
42. cordially
    He welcomed us cordially.
43. especially
    I am especially happy today.
44. disappoint
    I will not disappoint you.
45. decision
    The boy made an excellent decision.
46. parliament
    We attended Parliament.
47. recommend
    Can you recommend that book?
48. endeavor
    Endeavor to do your best.
49. privilege
    It is your privilege to go.
50. villain
    The burglar was a villain.
1. is
2. now
3. little
4. did
5. hat
6. hot
7. was
8. ran
9. told
10. sold
11. hope
12. room
13. light
14. stamp
15. push
16. third
17. few
18. wire
19. tax
20. there
21. raise
22. request
23. truly
24. cities
25. sail
26. whose
27. attempt
28. search
29. consider
30. complete
31. piece
32. system
33. national
34. refer
35. absence
36. majority
37. unfortunate
38. session
39. discussion
40. experience
41. proceed
42. practical
43. preliminary
44. receipt
45. possess
46. restaurant
47. parallel
48. physician
49. kerosene
50. pneumonia

He is here.
Come now.
Little children play.
Did you go?
Put on your hat.
The rolls are hot.
She was here yesterday.
Bob ran.
She told a story.
He sold his top.
I hope to go away.
This is your room.
The light hurts my eyes.
Stamp the letter.
Push the door open.
The third problem is easy.
I have read few books.
The basket is made of wire.
People tax themselves.
There goes the postman.
Raise the window.
Your request will be granted.
The money is truly yours.
Many people live in cities.
Boats sail on water.
Whose apple is this?
At the window.
Your request will be granted.
The money is truly yours.

Keep the receipt.
What talent do you possess?
Who owns this restaurant?
Parallel lines never meet.
He is a good physician.
Kerosene is an oil that burns.
Heavy colds cause pneumonia.
1. she
2. man
3. good
4. this
5. over
6. say
7. belong
8. stand
9. foot
10. sister
11. inside
12. mail
13. two
14. began
15. watch
16. happen
17. sight
18. bridge
19. front
20. elect
21. refuse
22. pleasure
23. vacation
24. repair
25. surprise
26. select
27. weigh
28. publication
29. adopt
30. century
31. assist
32. summon
33. invitation
34. automobile
35. colonies
36. foreign
37. arrangement
38. campaign
39. imagine
40. extreme
41. organization
42. immediate
43. employees
44. accommodate
45. superintendent
46. allege
47. stationery
48. vaguely
49. sovereign

LIST 4

1. Is she at home? she
2. That man is good. man
3. Be a good boy. good
4. This book is mine. this
5. The ball is over the fence. over
6. You must say your prayers. say
7. Does this pen belong to you? belong
8. Please stand up. stand
9. The doctor is sick. sick
10. I hurt my foot. foot
11. My sister is here. sister
12. Come inside the tent. inside
13. Please mail my letter. mail
14. I have two apples. two
15. I began work last week. began
16. Watch that man. watch
17. It does not happen often. happen
18. I lost sight of the bird. sight
19. The bridge is large. bridge
20. The front of the car is smashed. front
21. I hope they elect my choice. elect
22. I refuse to go. refuse
23. It was a great pleasure. pleasure
24. I had two months' vacation. vacation
25. I must repair my wheel. repair
26. It will be a surprise. surprise
27. Please select your gifts. select
28. How much do you weigh? weigh
29. It was a good publication. publication
30. He will adopt the child. adopt
31. That happened a century ago. century
32. Will you assist me? assist
33. Please summon help. summon
34. I accept the invitation. invitation
35. I have a new automobile. automobile
36. The colonies will govern themselves. colonies
37. She is of foreign birth. foreign
38. I like the arrangement. arrangement
39. The campaign started today. campaign
40. Can you imagine such a thing? imagine
41. His tastes are extreme. extreme
42. It is a large organization. organization
43. I had an immediate reply. immediate
44. The employees had a raise in pay. employees
45. I will gladly accommodate you. accommodate
46. He is the superintendent. superintendent
47. I allege he is not guilty. allege
48. He gave me a box of stationery. stationery
49. His impression was vaguely remembered. vaguely
50. The sovereign prince is ill. sovereign
LIST 5

1. is The apple is red.
2. now Now is the time for play.
3. you You must be quiet.
4. all All the boys are here.
5. must You must recite today.
6. come Come with me.
7. door Close the door.
8. yard This stick is a yard long.
9. got I got a new hat yesterday.
10. blow Blow out the light.
11. cast Cast aside your worries.
12. blue Her eyes are blue.
13. eye My eye hurts.
14. they They will be waiting.
15. able He is able to be out.
16. dash He made a dash for the door.
17. begun Have you begun your work?
18. stood He stood erect.
19. offer I made them a good offer.
20. rule What rule did you use?
21. aboard He is now aboard the ship.
22. district It happened in your district.
23. navy I want to join the navy.
24. beautiful What a beautiful tree!
25. trouble Keep out of trouble.
26. period Every period is filled.
27. connection There is no connection here.
28. wear Wear your new uniforms.
29. machine The machine is broken.
30. secure The fastenings are secure.
31. total What is the total score?
32. difference There is little difference.
33. official He is the best official we have.
34. accept I will accept your offer.
35. various I have various kinds of candy.
36. assure I will assure him of his safety.
37. expense You have been an expense to me.
38. testimony His testimony could not be shaken.
39. coarse This material is coarse.
40. independent He is independent.
41. athletic She is athletic.
42. bicycle I have a new bicycle.
43. convenient It will be convenient for me.
44. exquisite The trimmings are exquisite.
45. orchestra The orchestra played several times.
46. thoroughly I am thoroughly displeased.
47. cemetery Let's go to the cemetery.
48. tortoise The tortoise lives on land.
49. appropriate Congress will appropriate large sums.
50. proficiency His proficiency was remarkable.
LIST 6

1. it  It is time to go......................it
2. the  The snow is falling....................the
3. will  Will you go with me?.....................will
4. your  Your paper is soiled..................your
5. make  Make up your mind now................make
6. hand  Give me your hand....................hand
7. yes  Yes, I will go........................yes
8. bring  Bring me another book................bring
9. north  I expect to go up north..............north
10. block  We live on the same block...........block
11. card  Did you leave your card?..............card
12. post  The post has fallen....................post
13. glass  Do not break that glass..............glass
14. would  Would you like some cake?............would
15. gone  They have been gone an hour........gone
16. fell  He fell and hurt himself..............fell
17. collect  Please collect the papers........collect
18. fix  The men will fix the chair..............fix
19. suffer  She did not suffer any..............suffer
20. carry  Carry this package for me.............carry
21. jail  He is in jail........................jail
22. restrain  He could not restrain his anger....restrain
23. fourth  This is the fourth period..........fourth
24. flight  The birds' flight was rapid..........flight
25. entrance  The entrance is closed............entrance
26. addition  The addition is correct...........addition
27. firm  The firm is bankrupt..................firm
28. entertain  I will entertain your mother.....entertain
29. toward  We went toward the north............toward
30. honor  Have you no honor?....................honor
31. mention  Do not mention my name.............mention
32. examination  The examination was difficult..examination
33. victim  He is a victim of circumstances...victim
34. impossible  It is impossible to hear.......impossible
35. decide  Decide for yourself..................decide
36. relief  My relief was sincere................relief
37. responsible  Who is responsible for this?..responsible
38. principal  He is principal of the school....principal
39. columns  How many columns have you?.........columns
40. individual  Who is this individual?..........individual
41. sincerely  He spoke sincerely..............sincerely
42. calendar  Where is the calendar?............calendar
43. artificial  Those flowers are artificial....artificial
44. familiar  Those sounds are familiar........familiar
45. perceived  I perceived the answer............perceived
46. surgeon  He is a great surgeon..............surgeon
47. enthusiasm  This enthusiasm is wonderful...enthusiasm
48. extraordinary  He is an extraordinary person..extraordinary
49. immediately  I left immediately after you...immediately
50. lieutenant  He is first lieutenant.............lieutenant
LIST 7

1. and  
2. last  
3. we  
4. out  
5. make  
6. ring  
7. low  
8. tell  
9. white  
10. spring  
11. south  
12. town  
13. party  
14. any  
15. suit  
16. fight  
17. file  
18. born  
19. built  
20. chain  
21. shed  
22. royal  
23. population  
24. travel  
25. importance  
26. employ  
27. region  
28. salary  
29. success  
30. promise  
31. arrive  
32. particular  
33. estimate  
34. concern  
35. entitle  
36. occupy  
37. beginning  
38. apparent  
39. desirable  
40. innocent  
41. appreciate  
42. disease  
43. associates  
44. finances  
45. recommended  
46. precipice  
47. physician  
48. mortgage  
49. dispensary  
50. guarantee

You and I will go .................................... and
I went the last time .................................. last
We are tired ........................................... we
Come out of the dark .................................. out
Make him come in ..................................... make
Ring the bell ......................................... ring
The ceilings are low .................................. low
Tell the truth ......................................... tell
Her teeth are very white ............................ white
The cat will spring at you ........................... spring
The birds have gone south ........................... south
What town is this? .................................... town
We had a fine party ................................... party
Have you any money? ................................. any
Is that suit new? ..................................... suit
Wild animals fight ................................... fight
File these letters ..................................... file
You were born in 1910 ............................... born
He built a canoe ...................................... built
Make a daisy chain ................................... chain
The horse is in the shed ............................. shed
The royal palace was destroyed ..................... royal
What is the population of Boston? .................. population
I shall travel a great deal ........................... travel
The work is of great importance .................... importance
We employ two girls .................................. employ
What region are you in? .............................. region
What is your salary? .................................. salary
Her success is wonderful ............................. success
Promise to keep quiet ................................ promise
When does the train arrive? ........................ arrive
I am not particular .................................. particular
Can you estimate the amount? ....................... estimate
He is a member of our concern ...................... concern
It will entitle you to a prize ........................ entitle
Do not occupy all the space ......................... occupy
This is the beginning of a new chapter .......... beginning
His delight was apparent ........................... apparent
This location is desirable ........................... desirable
Are you innocent of this deed? ..................... innocent
I appreciate your kindness ........................ appreciate
This disease is incurable ............................ disease
They are business associates ........................ associates
The finances were well handled ..................... finances
You are well recommended ........................ recommended
She fell over the precipice ........................ precipice
He is my physician .................................. physician
The mortgage is due tomorrow ...................... mortgage
There is a new dispensary in our town .......... dispensary
I will guarantee his work ........................... guarantee
<table>
<thead>
<tr>
<th></th>
<th>Word</th>
<th>Translation</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>go</td>
<td>You may <em>go</em> home.</td>
</tr>
<tr>
<td>2</td>
<td>up</td>
<td>Put <em>up</em> the window.</td>
</tr>
<tr>
<td>3</td>
<td>my</td>
<td><em>My</em> head aches.</td>
</tr>
<tr>
<td>4</td>
<td>time</td>
<td>What <em>time</em> is it?</td>
</tr>
<tr>
<td>5</td>
<td>street</td>
<td>What <em>street</em> is this?</td>
</tr>
<tr>
<td>6</td>
<td>live</td>
<td>Where do you <em>live</em>?</td>
</tr>
<tr>
<td>7</td>
<td>soft</td>
<td>The ice cream is <em>soft</em>.</td>
</tr>
<tr>
<td>8</td>
<td>five</td>
<td>I have <em>five</em> cents.</td>
</tr>
<tr>
<td>9</td>
<td>spent</td>
<td>I <em>spent</em> all my money.</td>
</tr>
<tr>
<td>10</td>
<td>river</td>
<td>This <em>river</em> is small.</td>
</tr>
<tr>
<td>11</td>
<td>deep</td>
<td>The river is <em>deep</em>.</td>
</tr>
<tr>
<td>12</td>
<td>stay</td>
<td><em>Stay</em> in the house.</td>
</tr>
<tr>
<td>13</td>
<td>upon</td>
<td>The Indians were <em>upon</em> them.</td>
</tr>
<tr>
<td>14</td>
<td>could</td>
<td><em>Could</em> you mend the toy?</td>
</tr>
<tr>
<td>15</td>
<td>track</td>
<td>The <em>track</em> is six miles long.</td>
</tr>
<tr>
<td>16</td>
<td>buy</td>
<td>Please <em>buy</em> me some candy.</td>
</tr>
<tr>
<td>17</td>
<td>provide</td>
<td>I will <em>provide</em> for the future.</td>
</tr>
<tr>
<td>18</td>
<td>goes</td>
<td>He <em>goes</em> away today.</td>
</tr>
<tr>
<td>19</td>
<td>center</td>
<td>Point to the <em>center</em> of the circle.</td>
</tr>
<tr>
<td>20</td>
<td>death</td>
<td>His <em>death</em> was very sad.</td>
</tr>
<tr>
<td>21</td>
<td>retire</td>
<td>It is time to <em>retire</em>.</td>
</tr>
<tr>
<td>22</td>
<td>objection</td>
<td>Have you any <em>objection</em>?</td>
</tr>
<tr>
<td>23</td>
<td>proper</td>
<td>Is this the <em>proper</em> heading?</td>
</tr>
<tr>
<td>24</td>
<td>rapid</td>
<td>His work was <em>rapid</em>.</td>
</tr>
<tr>
<td>25</td>
<td>carried</td>
<td>I <em>carried</em> the banner.</td>
</tr>
<tr>
<td>26</td>
<td>property</td>
<td>The <em>property</em> is mine.</td>
</tr>
<tr>
<td>27</td>
<td>convict</td>
<td>The <em>convict</em> has escaped.</td>
</tr>
<tr>
<td>28</td>
<td>visitor</td>
<td>We have a <em>visitor</em>.</td>
</tr>
<tr>
<td>29</td>
<td>drown</td>
<td>Do not <em>drown</em> the kittens.</td>
</tr>
<tr>
<td>30</td>
<td>wreck</td>
<td>There was a sad <em>wreck</em> today.</td>
</tr>
<tr>
<td>31</td>
<td>supply</td>
<td>The <em>supply</em> is exhausted.</td>
</tr>
<tr>
<td>32</td>
<td>affair</td>
<td>It was a gala <em>affair</em>.</td>
</tr>
<tr>
<td>33</td>
<td>accident</td>
<td>It was an <em>accident</em>.</td>
</tr>
<tr>
<td>34</td>
<td>associate</td>
<td>I will not <em>associate</em> with them.</td>
</tr>
<tr>
<td>35</td>
<td>political</td>
<td>There is a <em>political</em> meeting tonight.</td>
</tr>
<tr>
<td>36</td>
<td>probably</td>
<td><em>Probably</em> we shall be late.</td>
</tr>
<tr>
<td>37</td>
<td>application</td>
<td>You must file your <em>application</em></td>
</tr>
<tr>
<td>38</td>
<td>ascending</td>
<td>I was <em>ascending</em> the stairs.</td>
</tr>
<tr>
<td>39</td>
<td>extremely</td>
<td>We are <em>extremely</em> thankful to you.</td>
</tr>
<tr>
<td>40</td>
<td>leisure</td>
<td>We spent our <em>leisure</em> time fishing.</td>
</tr>
<tr>
<td>41</td>
<td>emergency</td>
<td>I reached for the <em>emergency</em> brake</td>
</tr>
<tr>
<td>42</td>
<td>foreigners</td>
<td>They are all <em>foreigners</em>.</td>
</tr>
<tr>
<td>43</td>
<td>development</td>
<td>The <em>development</em> was perfect.</td>
</tr>
<tr>
<td>44</td>
<td>intelligent</td>
<td>She is an <em>intelligent</em> child.</td>
</tr>
<tr>
<td>45</td>
<td>seized</td>
<td>The man <em>seized</em> the falling child.</td>
</tr>
<tr>
<td>46</td>
<td>orchestra</td>
<td>The <em>orchestra</em> played well.</td>
</tr>
<tr>
<td>47</td>
<td>syllables</td>
<td>Pronounce the <em>syllables</em> distinctly.</td>
</tr>
<tr>
<td>48</td>
<td>mortgage</td>
<td>The <em>mortgage</em> is due.</td>
</tr>
<tr>
<td>49</td>
<td>persistence</td>
<td>Her <em>persistence</em> was amazing.</td>
</tr>
<tr>
<td>50</td>
<td>incessant</td>
<td>The talking was <em>incessant</em>.</td>
</tr>
</tbody>
</table>
MORRISON-McCALL SPELLING SCALE

CLASS RECORD

School........................................Grade..............

Teacher......................................Examiner..............

<table>
<thead>
<tr>
<th>Name</th>
<th>Age</th>
<th>List</th>
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<tbody>
<tr>
<td></td>
<td>Yrs.</td>
<td>Mos.</td>
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Class Means
STANFORD ACHIEVEMENT TEST

TRUMAN L. KELLEY • RICHARD MADDEN • ERIC F. GARDNER • LEWIS M. TERMAN • GILES M. RUCH

Intermediate Battery

Complete FORM M

Name_ Age_____ Grade_____ Boy or girl_____

Teacher_ School_ Date of birth_____ Year Month Day

City or town_ State_ Date_ 

<table>
<thead>
<tr>
<th>Par. Mean.</th>
<th>Word Mean.</th>
<th>AVER. Read.</th>
<th>3 Spell.</th>
<th>4 Lang.</th>
<th>5 ARITH. Reas.</th>
<th>6 ARITH. Comp.</th>
<th>AVER. ARITH.</th>
<th>7 SOC. STUD.</th>
<th>8 SCI.</th>
<th>9 STUD. SK.</th>
<th>Battery Median</th>
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</thead>
<tbody>
<tr>
<td>Grade Equiv.</td>
<td>Age Equiv.</td>
<td>%-ile Rank</td>
<td></td>
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</tbody>
</table>

Individual Profile Chart

Grade Score Scale

<table>
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<tr>
<th>30</th>
<th>35</th>
<th>40</th>
<th>45</th>
<th>50</th>
<th>55</th>
<th>60</th>
<th>65</th>
<th>70</th>
<th>75</th>
<th>80</th>
<th>85</th>
<th>90</th>
<th>95</th>
<th>100</th>
<th>105</th>
<th>110</th>
<th>115</th>
<th>120</th>
</tr>
</thead>
</table>

Grade Equivalent Scale

Grade equivalent values above 10.0 are extrapolated values and not to be interpreted as signifying the typical performance of pupils of the indicated grade placement. (See Directions for Administering.)

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DIRECTIONS: Read each paragraph below. Decide which of the numbered words at the right is best for each blank, and then mark the answer space which is numbered the same as the word you have chosen. Study the sample below, and answer the other questions in the same way.

SAMPLE: I am shorter than my sister and taller than my brother. This morning we stood beside each other. I looked down at my __51__ and __52__ at my sister.

1-2 A baby cow is a calf; a baby cat is a kitten; a baby dog is a puppy. John has a dog named Lulu, and Alice has a cat named Susan. Lulu has a family of five __1__ and Susan has four new __2__.

3-4-5 Bob and Mary went to the museum last Saturday, the only day in the week that children can visit free. Bob, being a real boy, was interested in the weapons, engines, and other machines. Mary, like most __3__, enjoyed looking at the dolls, clothes, and jewels of olden times. They weren't even half through at closing time. "Next __4__ is a free day. Let's come back then," said Mary. "Oh, yes," answered Bob, "there are some __5__ I haven't seen."

6-7-8 In the Sahara Desert there are no rivers. Here and there water comes to the surface in a place called an oasis. Men who cross the __6__ must carry enough __7__ with them to last from one __8__ to another.

8-9-10-11 Children used to celebrate the Fourth of July by shooting off firecrackers. Sometimes an explosion occurred too soon and someone got hurt. Nowadays in our town no one is allowed to shoot __9__. Instead, the fire department puts on a display of colored __10__ in the evening. Thus we __11__ celebrate in a way that is not __11__ to children.

12-13-14 One kind of trout, the steelhead, lives part of its life __12__ swimming in the Pacific Ocean. In summer the full-grown steelhead, like the salmon, makes its way back up the stream where it was born; there it spawns — that is, lays its eggs. Unlike the salmon, which dies after __12__, the __13__ returns to the __14__ and comes back upstream the next season.
15-16-17 The first permanent English colony in America was established at Jamestown in Virginia, chiefly for commercial purposes. The second colony was founded in Plymouth, New England, by the Pilgrims, who had suffered religious persecution at home. Unlike the founders of 15 who sought financial gain, the 16 came to America in order to practice their 17 without interference.

18-19-20 Water is a liquid, ice is a solid, and steam is a gas. 18 Heat will change ice from a solid into the liquid we call 19 . If we boil water in a kettle, it will change from a liquid into the 19 that we call 20 .

21-22-23 Certain islands, called atolls, have been built up from the skeletons of corals. The tiny coral animal originates as a free-swimming creature, but later settles down on a rock or piece of dead coral and lives like a plant. It builds a skeleton which, at its death, is added to the 21 of other 22 until through the centuries a whole 23 has been built up.

24-25-26 In our town the members of the City Council pass laws called ordinances which regulate such things as streets, the water supply, and traffic. If a street is too narrow, the Council may pass an 24 about widening it. If our water supply is low, the 25 may decide how much each family is allowed to use. If people drive too fast past schools, the Council may pass an ordinance setting a 26 speed limit.

27-28-29 The key industry of the United States is steel. Without it our automobiles and railroad cars could not be built. None of our large factories, office buildings, and bridges could be erected, for 27 is used as the framework of all such structures. Smaller crops would be grown, for most farm 28 are made of steel. Cutting short our steel supply would affect nearly all the important 29 of the United States.

30-31 Benjamin Franklin won fame as a statesman, a philosopher, a writer, a publisher, and a scientist. In his role of 30 he not only held public office in the United States but also represented the United States in both England and France. As a 31 he is best known for his identification of lightning with electricity.

32-33 "Every dog had an attendant." That is the way to say it rather than every attendant had a dog, for at a dog show the dog is 32 . A dog called Grimes the Second won the blue ribbon. Visitors and reporters crowded around his kennel; so 33 was very proud.
34-35 The dictionary says that “to browse” means to feed on tender leaves and shoots, but Mother and I have our special meanings. We browse and feed on tidbits — she in the library and I in the pantry. She feeds her ___ and I feed my ___.

36-37-38 It is only within the last century or so that anesthetics have been used in surgical operations. Faraday was the first to discover the use of ether to produce unconsciousness of pain. This was in 1822, but it was not until about 1846 that the drug was used to any extent. The widespread use of ___ has made it possible for the most delicate ___ to be performed without causing ___.

39-40-41 In the days when the Caesars ruled Rome, gladiatorial contests were held in the Colosseum. These provided entertainment for the emperor and his court. The gladiators were professional swordsmen who fought until one was killed or too severely wounded to continue. Sometimes they fought wild animals instead of other ____. However, prisoners of war or Christians instead of professional gladiators were frequently pitted against the wild and half-starved ___ for the ___ of the Romans.

42-43 The shaking of hands is said to have started in the days when people commonly carried a dagger or knife. To show friendship one would hold out his empty dagger hand. For most people this would be the ___ hand; so the present custom of extending the ___ hand grew up.

44-45 A sea anchor is used in deep water, primarily, to keep a ship headed into the wind during a storm, or when there has been engine trouble and there is danger of drifting. Most sea anchors are made of canvas stretched on a cone-shaped frame, and they are dragged by ropes attached to the rim. Consequently, a sea anchor acts like a parachute, except that it is filled with ___ instead of ___.

46-47-48 Militate, mitigate, and instigate are three words that sound somewhat alike but whose meanings are quite different. Militate means to have large weight or effect. Mitigate means to make less severe. Instigate means to incite or set going. Thus, we can say that a man’s grief at losing his fortune would be ___ by the love and devotion of his friends; that agitators sometimes ___ a riot; and that a man’s careless use of ___ English often ___ against his getting a good job.

Stop.
TEST 2  Word Meaning

DIRECTIONS: In each exercise decide which of the four numbered words will complete the sentence best. Look at the number of this word. Mark the answer space at the right which is numbered the same as the word you have chosen. Study the samples.

SAMPLES:

51 The day that comes after Friday is — 1 Monday 2 Tuesday 3 Saturday 4 Sunday

52 To draw on a blackboard, use a piece of — 5 pencil 6 straw 7 eraser 8 chalk

1 Which one of these is not a loud cry? 1 a yell 2 a whisper 3 a shout 4 a scream

2 Many cattle together are called a — 5 pasture 6 herd 7 school 8 swarm

3 A pupil is a person who — 1 learns 2 plays 3 marches 4 sings

4 Distant means — 5 before 6 far 7 great 8 north

5 To collect means to — 1 gather 2 arrange 3 buy 4 keep

6 A cup with a very long handle is called a — 5 dipper 6 kettle 7 rack 8 hook

7 When a storm is approaching, small animals are likely to seek — 1 shadows 2 surface 3 shelter 4 shepherds

8 A person who lives and votes in a country is a — 5 native 6 visitor 7 leader 8 citizen

9 John’s father has a sister. She is John’s — 1 sister 2 playmate 3 brother 4 aunt

10 If someone does you a favor, he expects you to — 5 excuse it 6 appreciate it 7 pardon it 8 cash it

11 If you control something, you — 1 manage it 2 obey it 3 order it 4 hate it

12 Things you see in a mirror are — 5 reflections 6 ghosts 7 figures 8 shadows

13 To forgive is to — 1 approve 2 pardon 3 win 4 love

14 A century means — 5 long ago 6 10 years 7 25 years 8 100 years

15 Certain means — 1 sure 2 best 3 possible 4 easy

16 A child whose parents have died is — 5 an orphan 6 a founder 7 a foreigner 8 an ancestor

17 A merchant — 1 walks 2 sells 3 gets rich 4 sings

18 Places you can recognize easily are — 5 familiar 6 resorts 7 paradises 8 haunted

19 A foe is — 1 an island 2 an enemy 3 an adult 4 a friend

20 To pronounce is to — 5 show 6 judge 7 spell 8 speak

21 The stuff from which anything is made is called — 1 material 2 pavement 3 glue 4 cement

22 The opposite of slavery is — 5 property 6 debt 7 ownership 8 liberty

23 People who go out to teach a faith are — 1 pilgrims 2 missionaries 3 pagans 4 wanderers

Go on to the next page.
<table>
<thead>
<tr>
<th>TEST 2 Word Meaning (Continued)</th>
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<tbody>
<tr>
<td>24 The tiny holes in your skin are — 5 portholes 6 channels 7 pores 8 cores 24</td>
</tr>
<tr>
<td>25 A house that is being lived in is — 1 included 2 reserved 3 occupied 4 exposed 25</td>
</tr>
<tr>
<td>26 Anything done lately is — 5 recent 6 temporary 7 historic 8 changeable 26</td>
</tr>
<tr>
<td>27 When you change a person's opinion, you — 1 tease him 2 bother him 3 influence him 4 trick him 27</td>
</tr>
<tr>
<td>28 If you can tell twins apart, you can — 5 distinguish them 6 inspect them 7 imitate them 8 criticize them 28</td>
</tr>
<tr>
<td>29 If you stop to make sure that you are right, you — 1 hesitate 2 proceed 3 continue 4 wander 29</td>
</tr>
<tr>
<td>30 Loyal means — 5 mighty 6 famous 7 brave 8 faithful 30</td>
</tr>
<tr>
<td>31 If you leave something, you — 1 arouse it 2 remit it 3 abandon it 4 relieve it 31</td>
</tr>
<tr>
<td>32 The nearest thing to having talent is having — 5 acquaintances 6 income 7 ability 8 authority 32</td>
</tr>
<tr>
<td>33 An airline timetable is a — 1 schedule 2 journal 3 menu 4 quotation 33</td>
</tr>
<tr>
<td>34 The place you are trying to reach is your — 5 excursion 6 definition 7 objection 8 destination 34</td>
</tr>
<tr>
<td>35 People in need of help need — 1 affection 2 appreciation 3 assistance 4 applause 35</td>
</tr>
<tr>
<td>36 When we take something apart in order to understand it, we — 5 design it 6 analyze it 7 enable it 8 preserve it 36</td>
</tr>
<tr>
<td>37 The right thing said at the right time is — 1 lovable 2 appropriate 3 inconvenient 4 genuine 37</td>
</tr>
<tr>
<td>38 If rain is very plentiful, it is — 5 abundant 6 limited 7 unfortunate 8 partial 38</td>
</tr>
<tr>
<td>39 The purpose of the control tower at an airport is to — 1 threaten traffic 2 regulate traffic 3 confuse traffic 4 overlook traffic 39</td>
</tr>
<tr>
<td>40 Insects that are a nuisance and harmful are — 5 pests 6 mosquitoes 7 bacteria 8 killers 40</td>
</tr>
<tr>
<td>41 When one tries hard, he — 1 relaxes 2 bustles 3 flounders 4 endeavors 41</td>
</tr>
<tr>
<td>42 If a thing always stands in one place, it is — 5 slumbering 6 stationary 7 erected 8 architecture 42</td>
</tr>
<tr>
<td>43 A man who is appointed to his job cannot at the same time be — 1 honest 2 frank 3 elected 4 prepared 43</td>
</tr>
<tr>
<td>44 When we tell what a word means, we — 5 prompt it 6 declare it 7 indent it 8 define it 44</td>
</tr>
<tr>
<td>45 A country that has equal rights for all people is — 1 an empire 2 a democracy 3 a kingdom 4 a union 45</td>
</tr>
<tr>
<td>46 Products that don't meet standards should be — 5 rejected 6 superior 7 improvements 8 accepted 46</td>
</tr>
<tr>
<td>47 If a sound makes you think sad thoughts, it is — 1 movable 2 an echo 3 shrill 4 melancholy 47</td>
</tr>
<tr>
<td>48 A small rounded hill is a — 5 cowl 6 knoll 7 bullock 8 bowler 48</td>
</tr>
</tbody>
</table>
DIRECTIONS: In each exercise below, one of the words is spelled in three different ways. If the correct spelling is there, mark the answer space which has the same number as the correct spelling. If the correct spelling is not given as one of the three spellings, mark the answer space under NG as the right answer; NG stands for not given.

SAMPLES:
91 The color is 2 red. 3 rud. 12
92 an 4 egg for breakfast. 6 egg.

17 Write down this 2 figure. 1 2 3 NG
18 Doris will 5 crack the nuts. 4 crake 3 figger.
19 We play ball at 2 recess. 1 recess. 3 recess.
20 You are close to the 5 edge. 4 eeg 6 edge.
24 a 5 museum collection. 4 musem 6 museum
25 We 2 arrived early. 1 arrived 3 arrived
26 Tomorrow will be 5 Wednesday. 4 Wensday.
27 Owls 2 seek food at night. 3 seek
28 to 5 determine the policy. 4 determin 6 determin
29 members of the 2 council. 1 counsel 3 counsel
30 This is its 5 naturel color. 4 naturesi 6 natural
31 It is 2 neither Ted nor Bob. 1 neither
32 They did it by 5 themselves. 4 themselvs. 6 themselfs.
33 the club’s 2 officers. 1 officer 3 officers
34 Spot has a full 5 stomach. 4 stomach. 6 stomach.
35 Let’s watch them 2 grind coffee. 3 grind
36 It is 5 possible to win. 4 possible 6 possible
37 The teacher gave a 2 kwiz. 1 quiz. 3 kwiz.

Go on to the next page.
TEST 3  Spelling (Continued)

38 champions of the 5 leage
39 The 2 cherrys are ripe.
40 It is a matter of 5 importance.
41 The 2 magazine has stories.
42 The air 5 presure is high.
43 I wish you much 2 happiness.
44 The size was 5 differant.
45 The 2 conductor takes tickets.
46 a 5 precious stone.
47 The 2 choir will sing.
48 to vaccinate for 5 smallpox.
49 A new stamp was 2 issued.
50 Write to the 5 secretary.
51 Make a ham 2 sanwich.
52 Read a 5 mystery story.
53 Jane was very 2 sincer.
54 I 6 appreciate his help.
55 They want 2 independance.

56 a product of much 4 utilitey.
57 the latest 2 edition.
58 We 6 cometicate daily.
59 a list of six 2 items.
60 Take the 5 minimun amount.
61 an 2 immediate reply.
62 the first 5 semester.
63 Please act 2 naturally.
64 We 6 recognize Alice.
65 Peggy was in the 2 recietal.
66 He has great 5 ambition.
67 an 2 opportunity to serve.
68 It was blue, 5 originaly.
69 Play in the 2 auditorium.
70 Snow is 5 beginning to fall.
71 his 2 technicle skill.
72 a 5 substantial saving.

Stop.

No. right 1 2 3 4 5 6 7 8 9 10
Gr. score 15 16 17 18 19 20 21 22 23 24
No. right (Cont'd) 41 42 43 44 45 46 47 48 49 50
Gr. score 52 53 54 55 56 57 58 59 60
DIRECTIONS: In each pair of words in heavy type there is an error in either capitalization or punctuation. You are to decide which one of each pair has the correct capitalization and punctuation. Then mark the answer space at the right that has the same number as the correct form.

SAMPLES:

1. This is Mr. Jones. 2. Mr. Jones.
3. St. Louis, Missouri 4. St. Louis Missouri

DEAR WALTER,

I got an electric train from my mother and father for my birthday. It has ten cars. I set up a track, and a passenger station. Then, do you know what I did? I almost broke my train. I can fix my engine, but I will need a very small screwdriver.

Last week we went on a vacation trip. Our hotel was near the Green River. In the river were logs which had come from the Mountains to be sawed into lumber at a mill. I filled the can with water. The tadpoles began swimming.

Write me about your vacation.

Your friend,

RAY

---

DIRECTIONS: Each exercise below has two numbered parts. One part is well written and makes good sense. The other is poorly written. Choose the good one and mark the answer space that has the same number as your choice.

SAMPLE:

1. We'll go when you are ready. 2. We'll go. When you are ready.

THE SUNDAY PICNIC

1. We went on a picnic Sunday. Because it was such a pleasant day.
2. We went on a picnic Sunday because it was such a pleasant day.
3. First Mother put up a lunch. 4. First putting up a lunch.
5. Then driving out into the country. 6. Then we drove out into the country.
7. To find a park with picnic tables. 8. We found a park with picnic tables.
9. All of us helped unpack the food. 10. And helped unpack the food.
11. Quickly stuffed ourselves with good food. 12. Soon we were stuffing ourselves with good food.

TADPOLES

1. In a pool I saw some tadpoles they were black and wiggly.
2. In a pool I saw some tadpoles. They were black and wiggly.
3. They had tails which they used as paddles.
4. They had tails. Which they used as paddles.
5. Some had feet and some did not.
6. Some with feet and some without.

1. I took a sieve. Scooped up some tadpoles. Put them in a can.
2. I took a sieve. I scooped up some tadpoles and put them in a can.
3. I filled the can with water the tadpoles began swimming.
4. I filled the can with water. The tadpoles began swimming.
5. I left them overnight. In the morning they were dead.
6. I left them overnight in the morning they were dead.
DIRECTIONS: In each sentence, decide which of the numbered words is correct. Then mark the answer space at the right that has the same number as the word you have chosen.

SAMPLE: Apples 1 are good. 2

None of the boys 1 knew 2 the answer.

For breakfast I ate 5 an orange. 6

You must handle babies 1 carefully. 2

Did you 3 write 4 right to your cousin?

They built this house 3 themselves. 4

New York is the largest 5 of any other American city. 6

I was 1 worn 2 out.

We hadn’t even 3 begun 4 to play.

Children with colds sing 5 badly. 6

We still have a long 1 way 2 to go.

Each of us 3 ought 4 to work faster.

We had already 5 sung 6 two songs.

All the couples but 1 of them 2 could dance.

With shortcake, serve 3 whip 4 cream.
DIRECTIONS: Work an example, and then compare your answer with the answers which follow it. If your answer is one of those given, mark the answer space that has the same letter as your answer. Sometimes the correct answer is not given. If you do not find the correct answer, mark the space under the letter for not given.

SAMPLES:  
51 How many balls are 3 balls and 4 balls? 
   a 3 b 4 c 7 d 12 e not given  
52 How many books are 3 books and 2 books? 
   f 2 g 3 h 4 i 6 j not given  

1 Carol has 2 red dresses, 4 blue dresses, and 3 yellow dresses. How many dresses does she have all together? 
   a 6 b 9 c 10 d 12 e not given 
2 Nan got 10 toys for her birthday and has lost 3 of them. How many of them has she left? 
   f 7 g 9 h 10 i 13 j not given 
3 Our team scored 16 points in the first game, 6 points in the second, and 14 in the third. How many points did we score in all three games? 
   a 30 b 32 c 36 d 40 e not given 
4 Helen has 16 dolls and Rita has 9 dolls. Helen has how many more dolls than Rita? 
   f 6 g 9 h 16 i 25 j not given 
5 There are 18 bricks in one pile, 7 in another, and 29 in another. How many bricks are there in all three piles? 
   a 44 b 54 c 56 d 64 e not given 
6 Tom bought a ball for 35¢, a pencil for 29¢, and a toy boat for 24¢. How much did they all cost? 
   f 78¢ g 79¢ h 89¢ i 98¢ j not given 
7 Dan has 21 cans of dog food. How many weeks will this last if the dog eats 3 cans of the food each week? 
   a 3 b 7 c 18 d 21 e not given 
8 The milkman left 7 quarts of milk. If a gallon is used, how many quarts will be left? 
   f 1 g 3 h 5 i 7 j not given 
9 Sue counted 7 horses in one pasture, and she counted 8 cows and 6 horses in another pasture. How many horses did she count in both pastures? 
   a 7 b 12 c 13 d 21 e not given 
10 Seven boys had equal shares in a watermelon patch. They raised 147 watermelons. How many would each boy get as his share? 
   f 7 g 20 h 21 i 147 j not given 
11 There are 6 girls in our club. How many inches of ribbon shall we need so that each will have 27 inches? 
   a 27 b 33 c 92 d 162 e not given 
12 Bill has marbles of three colors. There are 37 blue ones, 14 agates, and 26 white ones. How many marbles has he in all? 
   f 37 g 40 h 63 i 77 j not given 
13 Mary and Dot started to play together at 4: 30. Dot had to go home at 5: 45. How many minutes did they have to play together? 
   a 15 b 30 c 45 d 60 e not given 
14 The class read 96 books about animals, 74 about heroes, and 42 books of poetry. How many more did they read about animals than they read about heroes? 
   f 22 g 54 h 170 i 212 j not given
15. Laura rides 16 miles each school day on the school bus. If she goes to school 22 days in one month, how many miles will she ride on the school bus during the month? 
   \[ a 16 \quad b 38 \quad c 342 \quad d 352 \quad e \text{not given} \]

16. If 6 pencils cost $1.26, what is the cost of each pencil? 
   \[ f 6 \quad g 20 \quad h 21 \quad i \$1.26 \quad j \text{not given} \]

17. A truck driver drove 288 miles in 9 hours. How many miles an hour did he average? 
   \[ a 32 \quad b 30 \quad c 32 \quad d 42 \quad e \text{not given} \]

18. Peggy's mother gave the clerk a $5.00 bill for a ring which cost $1.48 and a chain which cost $1.79. How much change did she get back? 
   \[ f \$1.73 \quad g \$3.27 \quad h \$3.29 \quad i \$3.52 \quad j \text{not given} \]

19. Nine boys picked 216 pounds of potatoes. Each boy is to take \( \frac{1}{9} \) of the potatoes. How many pounds should each boy take? 
   \[ a 24 \quad b 26 \quad c 30 \quad d 34 \quad e \text{not given} \]

20. Betty has $1.75 to spend for food for the class party. How many dozen cookies can she buy at 25¢ a dozen? 
   \[ f \quad g \quad h \quad i \quad j \text{not given} \]

21. Mr. Thompson is paid $6000 a year. What is his salary per month? 
   \[ a \$50 \quad b \$60 \quad c \$600 \quad d \$720 \quad e \text{not given} \]

22. How much will John pay for 12 bars of candy if they are 3 for 25¢? 
   \[ f \quad g \quad h \quad i \quad j \text{not given} \]

23. Hazel bought three boxes of cookies at 31¢ a box and two packages of ice cream at 44¢ per package. How much will she pay all together? 
   \[ a \quad 75 \quad b \quad 93 \quad c \quad 1.71 \quad d \quad 1.87 \quad e \text{not given} \]

24. If peaches are 3 pounds for 29¢, how many pounds can be bought for 87¢? 
   \[ f \quad g \quad h \quad i \quad j \text{not given} \]

25. Jane's mother gave her 50¢ to go to Grandmother's house Saturday. Bus fare is 15¢ each way. How much will Jane have left to spend for other things? 
   \[ a \quad 15 \quad b \quad 20 \quad c \quad 35 \quad d \quad 50 \quad e \text{not given} \]

26. Grace read 16 pages in her history book in 48 minutes. That was an average of how many minutes per page? 
   \[ f \quad 3 \quad g \quad 3 \frac{1}{2} \quad h \quad 4 \quad i \quad 16 \quad j \text{not given} \]

27. Mr. Gray bought a radio. The price of the radio plus the carrying charge was $75. He paid $45 in cash and agreed to pay the rest in 3 equal monthly payments. How much will each monthly payment be? 
   \[ a \quad 10 \quad b \quad 15 \quad c \quad 25 \quad d \quad 30 \quad e \text{not given} \]

28. It rained \( \frac{1}{2} \) inch on Monday, 1\( \frac{1}{2} \) inches on Thursday, and 1\( \frac{1}{4} \) inches on Friday. How much did it rain on all of these days? 
   \[ f \quad 2 \text{ in.} \quad g \quad 2 \frac{1}{2} \text{ in.} \quad h \quad 3 \text{ in.} \quad i \quad 3 \frac{1}{4} \text{ in.} \quad j \text{not given} \]

29. The scale of a map reads that 1" = 80 miles. How many inches long must a line on the map be to show a distance of 60 miles? 
   \[ a \quad \frac{3}{4} \quad b \quad 1 \frac{1}{3} \quad c \quad 9 \quad d \quad 48 \quad e \text{not given} \]

30. A truck slid off the road, breaking 18 boxes of eggs. "That's \( \frac{1}{2} \) of the load," said the truck driver. How many boxes were on the load? 
   \[ f \quad 4 \frac{1}{2} \quad g \quad 18 \quad h \quad 54 \quad i \quad 72 \quad j \text{not given} \]

Go on to the next page.
DIRECTIONS: The answers to these examples can be thought out without doing any figuring on paper. You are to think out the answer and mark the answer space that is lettered the same as your choice.

31 Which of these numbers is the largest?  
   a 999  b 282  c 98  d 1001  

32 Which month comes next after June?  
   e May  f April  g July  h August  

33 How many hours is it from noon one day to noon the next day?  
   a 10  b 12  c 20  d 24  

34 Which figure is in the hundreds place in the number 8763?  
   e 8  f 7  g 6  h 3  

35 A quart is how many pints?  
   a 2  b 4  c 6  d 8  

36 About how many pounds does a loaf of bread weigh?  
   e 1  f 5  g 9  h 15  

37 How many minutes is it until 4 o’clock?  
   a 1  b 9  c 16  d 44  

38 A century is —  
   e ages  f 100 years  g 10 years  h a year  

39 Without working the examples, choose the one in which the quotient will be smallest.  
   a 18977  b 18979  c 18880  d 18878  

40 Which of these fractions is reduced to lowest terms?  
   e 10  f 9/14  g 9/21  h 10/25  

41 The value of the Roman numeral XXVI is —  
   a 16  b 24  c 26  d 31  

42 The front wheels of the average automobile are about how far apart?  
   e 18 in.  f 2 ft.  g 1 yd.  h 5 ft.  

43 Moving the decimal point two places to the right multiplies a number by —  
   a 100  b 10  c 1  d 0  

44 How much is 24.3962 rounded off to hundredths?  
   e 24.00  f 24.30  g 24.39  h 24.40  

45 \( \frac{4}{5} = \)  
   a .80  b .20  c .08  d .00  

Stop.
DIRECTIONS: Work each example. Then compare your answer with the answers given at the right of the example. If your answer is one of those given, mark the answer space that has the same letter as your answer. Sometimes the correct answer is not given. If the correct answer is not given, mark the answer space under the letter for not given. Look carefully at each example to see what it tells you to do. If you need to do any figuring, use a separate sheet of paper.

SAMPLES:

1. **Add** 3
   - **A** Add 3
     -  a 2 b 3 c 4 d 5 e not given

2. **Subtract** 6
   - **B** Subtract 6
     - f 1 g 2 h 3 i 4 j not given

3. **Add** 95
   - **C** Add 95
     - a 178 b 188 c 189 d 198 e not given

4. **Subtract** 169
   - **D** Subtract 169
     - f 74 g 83 h 84 i 94 j not given

5. **Add** $8.54
   - **E** Add $8.54
     - a $12.24 b $13.24 c $13.34 d $14.24 e not given

6. **Multiply** 306
   - **F** Multiply 306
     - f 1836 g 1896 h 2106 i 2166 j not given

7. **Add** 46
   - **G** Add 46
     - f 1087 g 1177 h 1187 i 1197 j not given

8. **Subtract** 702
   - **H** Subtract 702
     - a 30 b 70 c 130 d 170 e not given

9. **Multiply** 293
   - **I** Multiply 293
     - f 1951 g 1981 h 2031 i 2051 j not given

10. **Add** $4.00
    - **J** Add $4.00
     - a $3.60 b $0.46 c $1.36 d $1.46 e not given

11. **Multiply** 424
    - **K** Multiply 424
     - f 46 g 47 h 56 i 154 j not given

12. **Add** 47 + 476 + 8789
    - **L** Add 47 + 476 + 8789
     - f 8312 g 9112 h 9302 i 9311 j not given

13. **Subtract** 32796
    - **M** Subtract 32796
     - a 3 b 12 c 21 d 30 e not given

**Go on to the next page.**
14 Multiply 75
81
\[ g \text{ by } f \]
\[ h \text{ by } i \]
\[ j \text{ not given} \]

15 \[ \frac{2}{3} \times 6 = \]
\[ a \text{ by } b \]
\[ c \text{ by } d \]
\[ e \text{ not given} \]

16 \[ 3 \div 5 = \]
\[ f \text{ by } g \]
\[ h \text{ by } i \]
\[ j \text{ not given} \]

17 Add 474.59
668.98
90.67
\[ \text{e not given} \]

18 Subtract 16,102
9,829
\[ f \text{ by } g \]
\[ h \text{ by } i \]
\[ j \text{ not given} \]

19 52 \times 1768
\[ a \text{ by } b \]
\[ c \text{ by } d \]
\[ e \text{ not given} \]

20 Subtract 430,117
373,548
\[ f \text{ by } g \]
\[ h \text{ by } i \]
\[ j \text{ not given} \]

21 Multiply 604
900
\[ a \text{ by } b \]
\[ c \text{ by } d \]
\[ e \text{ not given} \]

22 Subtract 430,117
373,548
\[ f \text{ by } g \]
\[ h \text{ by } i \]
\[ j \text{ not given} \]

23 Add \[ \frac{1}{12} \]
\[ \frac{1}{2} \]
\[ \frac{2}{3} \]
\[ \frac{11}{12} \]
\[ 5 \text{ not given} \]

24 \[ 8 \times \frac{5}{8} = \]
\[ \frac{1}{20} \]
\[ \frac{2}{5} \]
\[ 3 \text{ not given} \]

25 Multiply 243
20
\[ a \text{ by } b \]
\[ c \text{ by } d \]
\[ e \text{ not given} \]

26 Subtract \[ \frac{7}{8} \]
\[ \frac{3}{9} \]
\[ \frac{1}{4} \]
\[ \frac{3}{8} \]
\[ \frac{1}{2} \]
\[ i \text{ by } j \]
\[ j \text{ not given} \]

**LIBRARY BOOKS BOUGHT**

<table>
<thead>
<tr>
<th>Year</th>
<th>Books Bought</th>
</tr>
</thead>
<tbody>
<tr>
<td>1952</td>
<td>□□□□□□□□□□</td>
</tr>
<tr>
<td>1951</td>
<td>□□□□□□□□□□</td>
</tr>
<tr>
<td>1950</td>
<td>□□□□□□□□□□</td>
</tr>
<tr>
<td>1949</td>
<td>□□□□□□□□□□</td>
</tr>
<tr>
<td>1948</td>
<td>□□□□□□□□□□</td>
</tr>
</tbody>
</table>

Each □ = 5 new library books.

27 In which year were the most books bought?
\[ a \text{ by } b \]
\[ c \text{ by } d \]
\[ e \text{ not given} \]

28 In which year were just 35 books bought?
\[ f \text{ by } g \]
\[ h \text{ by } i \]
\[ j \text{ not given} \]

29 \[ \frac{5}{8} \times \frac{11}{12} = \]
\[ a \text{ by } b \]
\[ c \text{ by } d \]
\[ e \text{ not given} \]

Go on to the next page.
30 Multiply
\[
\begin{array}{c}
3.3 \\
1.1
\end{array}
\]
\[
\begin{array}{c}
.363 \\
g.363 \\
h.36.3 \\
i363 \\
j not given
\end{array}
\]
31 \( \frac{1}{3} + \frac{1}{5} \) = 
\[
\begin{array}{c}
a \frac{1}{27} \\
b \frac{1}{9} \\
c \frac{1}{3} \\
d3 \\
e not given
\end{array}
\]
32 \( 3 \cdot 18.6 \) = 
\[
\begin{array}{c}
f .062 \\
g .62 \\
h 6.2 \\
i 62 \\
j not given
\end{array}
\]
33 \( \frac{1}{2} + \frac{3}{8} \) = 
\[
\begin{array}{c}
a \frac{3}{20} \\
b \frac{1}{5} \\
c \frac{5}{24} \\
d \frac{11}{24} \\
e not given
\end{array}
\]
34 Subtract
\[
\begin{array}{c}
3 lb. 2 oz. \\
12 oz.
\end{array}
\]
\[
\begin{array}{c}
f 2 lb. \\
g 2 lb. 6 oz. \\
h 3 lb. 6 oz. \\
i 3 lb. 10 oz.
\end{array}
\]
35 Subtract
\[
\begin{array}{c}
\frac{5}{8} \\
3 \frac{1}{2}
\end{array}
\]
\[
\begin{array}{c}
a 2 \frac{2}{5} \\
b 2 \frac{2}{3} \\
c 2 \frac{7}{10} \\
d 2 \frac{4}{5} \\
e not given
\end{array}
\]
36 \( 5 \cdot 2.55 \) = 
\[
\begin{array}{c}
f .051 \\
g .51 \\
h 5.1 \\
i 51 \\
j not given
\end{array}
\]
37 \( 5 \cdot 1540 \) 
\[
\begin{array}{c}
a 3 \frac{4}{5} \\
b 38 \\
c 340 \\
d 380 \\
e not given
\end{array}
\]
38 \( 200 \times 7.5 \) = 
\[
\begin{array}{c}
f 1.5 \\
g 15 \\
h 150 \\
i 1500 \\
j not given
\end{array}
\]
39 \( 3 \frac{1}{4} \div 1 \frac{1}{4} \) = 
\[
\begin{array}{c}
a \frac{1}{3} \\
b 2 \\
c 2 \frac{1}{2} \\
d3 \\
e not given
\end{array}
\]
40 On which day were fewest eggs gathered?
\[
\begin{array}{c}
\text{f Mon.} \\
\text{g Tues.} \\
\text{h Wed.} \\
\text{i Thurs.}
\end{array}
\]
41 How many dozen eggs were gathered on Wed. and Fri. together?
\[
\begin{array}{c}
a 1 \frac{1}{2} \\
b 2 \\
c 4 \\
d 8 \\
e not given
\end{array}
\]
42 Add
\[
\begin{array}{c}
4 \text{ ft. 10 in.} \\
8 \text{ in.}
\end{array}
\]
\[
\begin{array}{c}
f 4 \text{ ft. 2 in.} \\
g 4 \text{ ft. 6 in.} \\
h 4 \text{ ft. 8 in.}
\end{array}
\]
43 \( 25\% \text{ of } 40 \) = 
\[
\begin{array}{c}
a \$1 \frac{2}{5} \\
b 10 \\
c \$65 \\
d \$100 \\
e not given
\end{array}
\]
44 \( 5 \cdot 0.025 \) = 
\[
\begin{array}{c}
f .005 \\
g .05 \\
h .5 \\
i 5 \\
j not given
\end{array}
\]
45 Find the average
\[
\begin{array}{c}
14 \text{ ft.} \\
18 \text{ ft.} \\
22 \text{ ft.} \\
10 \text{ ft.}
\end{array}
\]
\[
\begin{array}{c}
a 16 \text{ ft.} \\
b 18 \text{ ft.} \\
c 54 \text{ ft.} \\
d 64 \text{ ft.}
\end{array}
\]
Stop.
TEST 7 Social Studies: History, Geography, and Civic Education

DIRECTIONS: In each exercise, one of the four numbered answers is the best answer. Mark the answer space which is numbered the same as the best answer. The sample is marked correctly.

SAMPLE:

91 The United States flag is red, white, and— 1 black 2 green 3 blue 4 yellow 91 N

1 The chief product of a dairy farm is— 1 vegetables 2 milk 3 pork and beef 4 grain.

2 Breakfast cereals are made from— 5 animals 6 forests 7 mines 8 grain.

3 One of the main foods produced in Switzerland is— 1 coffee 2 fish 3 cheese 4 corn.

4 The early settlers of Pennsylvania built most of their houses with— 5 wood 6 cement 7 bricks 8 steel.

5 Tokyo is a city of— 1 Malaya 2 Japan 3 Hawaii 4 New Zealand.

6 Factories are places where— 5 things are made 6 things grow 7 people rest 8 people see shows.

7 Water areas on a globe are usually colored— 1 pink 2 orange 3 blue 4 green.

8 Mt. Vernon was the home of— 5 Lincoln 6 Washington 7 Franklin 8 Jefferson.

9 Bricks for homes are made by— 5 cutting them from lumber 6 steel mills 7 baking clay 8 mixing grains.

10 Daniel Boone was a— 5 naval officer 6 canal builder 7 pioneer 8 inventor.

11 Large amounts of silk are produced in— 1 Australia 2 India 3 Japan 4 Egypt.

12 Indians who lived on the Great Plains before the railroads came got much of their meat from— 5 buffaloes 6 cows 7 pigs 8 horses.

13 The furniture of the early American colonists was made largely— 1 in Europe 2 in factories 3 at home 4 in New York City.

14 Meat from a cow is called— 5 mutton 6 pork 7 beef 8 fowl.

15 The houses of Pueblo Indians were made of— 1 skins 2 palm leaves 3 adobe bricks 4 wood.

16 The carrying of the mail is managed by the— 5 cities 6 schools 7 national government 8 railroads.

17 To heat their homes, the New England colonists used— 1 wood 2 coal 3 gas 4 electricity.

18 The man in charge of a court is called a— 5 prosecutor 6 sheriff 7 judge 8 policeman.

19 An electrical genius was— 1 Henry Ford 2 Luther Burbank 3 Eli Whitney 4 Thomas A. Edison.

20 An important orange-growing state is— 5 Vermont 6 California 7 Missouri 8 Colorado.

[ 17 ] Go on to the next page.
21 The work of a businessman is usually to —
1 sell things 2 grow things 3 fix things 4 make things
42 The first axes and hammers were made of — 5 steel 6 stone 7 copper 8 alloys
23 Robert E. Lee was noted as — 1 an artist 2 a judge 3 a manufacturer 4 a general
24 A mayor is an officer of a — 5 city 6 county 7 state 8 nation
25 An important commercial flower of Holland is the —
1 marigold 2 rose 3 poppy 4 tulip
26 The United States Military Academy is located at —
5 Wright Field 6 West Point 7 Atlanta 8 Washington
27 The frame of a tall city building is usually made of — 1 steel 2 wood 3 glass 4 bricks
28 The Pilgrims came to America to seek better living conditions and to —
5 secure social equality 6 secure religious freedom 7 secure political freedom 8 expand the British Empire
29 Most colonial homes had —
1 plumbing 2 artificial gas lights 3 kerosene stoves 4 fireplaces
30 When underground water comes to the surface in a desert, the spot is called —
5 a delta 6 a seashore 7 a swamp 8 an oasis
31 A product shipped into this country is called —
1 an export 2 a tariff 3 an embargo 4 an import
32 Tides are most apt to affect — 5 rapids 6 a waterfall 7 a bay 8 a brook
33 The wandering people of the deserts are called —
1 farmers 2 nomads 3 colonists 4 hunters
34 Silkworms probably would be most familiar to children in —
5 China 6 Australia 7 Hawaii 8 South Africa
35 The chief weapon of the early pioneers in colonial America was the —
1 pistol 2 rifle 3 bow and arrow 4 bowie knife
36 The largest city in the United States is —
5 Los Angeles 6 New York 7 Chicago 8 Washington
37 The money earned by laborers is called — 1 taxes 2 rent 3 wages 4 interest
38 The great desert of Africa is called the —
5 Black Rock Desert 6 Red Desert 7 Gobi Desert 8 Sahara Desert
39 During the Revolutionary War, our army spent a cold winter at —
1 Fort Knox 2 the Alamo 3 Valley Forge 4 Yorktown
40 Early sailors from Norway were called — 5 vikings 6 Goths 7 Iroquois 8 troubadours
41 In the Arctic regions are found —
1 heavy forests 2 barren lands 3 wheat fields 4 fruit orchards
42 The Pyramids are located in — 5 Egypt 6 Morocco 7 Tunis 8 Persia
43 Rich swampy soil is needed for growing — 1 potatoes 2 rice 3 cotton 4 wheat
44 A city having good water transportation is —
5 Birmingham 6 Indianapolis 7 Denver 8 New Orleans
45 Alaska has about the same latitude as — 1 Norway 2 Japan 3 Hawaii 4 Bulgaria
TEST 7  Social Studies: History, Geography, and Civic Education (Cont.)

46 The Congo River is in — 5 Asia  6 Africa  7 South America  8 Europe.
47 Liverpool is a city of — 1 England  2 Holland  3 Norway  4 Spain.
48 Salt Lake City was settled by — 5 Quakers  6 Pilgrims  7 Mormons  8 Puritans.
49 A wholesale food store is most likely to sell to —
   1 travelers  2 farmers  3 grocery stores  4 housewives.
50 During the War Between the States, the South had assistance from —
   1 Japan  6 Sweden  7 Russia  8 Great Britain.
51 A reaper was invented by — 1 Watt  2 Fulton  3 Howe  4 McCormick.
52 The architecture of the Greek theaters was first copied in modified form by the —
   1 Persians  6 Chinese  7 Romans  8 Church.
53 Distance above sea level is known as — 1 altitude  2 latitude  3 longitude  4 pressure.
54 Whenever possible, early railroads were built —
   1 on mountains  6 through tunnels  7 across gorges  8 in valleys.
55 South America's great mountains are the — 1 Andes  2 Rockies  3 Sierras  4 Urals.
56 Which zone is farthest from the equator? 5 Tropical  6 Temperate  7 Torrid  8 Frigid.
57 Fertilizers are often manufactured by —
   1 fruitgrowers  2 clothing factories  3 meat packers  4 railroad companies.
58 "Coinage" refers to — 5 slavery  6 money  7 taxes  8 warfare.
59 Some kinds of beets are used for making — 1 cereals  2 sugar  3 catsup  4 jellies.
60 Transportation is difficult in China because of the lack of adequate —
   1 labor  6 roads  7 rivers  8 space.
61 A law proposed in Congress is called — 1 a bill  2 a ballot  3 a decree  4 an order.
62 Reindeer are common in — 5 India  6 Siberia  7 Germany  8 Italy.
63 A city noted for meat packing is —
   1 Philadelphia  2 San Francisco  3 Louisville  4 Chicago.
64 Most of our automobiles are produced in —
   5 Michigan  6 Wisconsin  7 New York  8 Pennsylvania.
65 Kansas is best adapted for — 1 mining  2 lumbering  3 manufacturing  4 farming.
66 An invention which probably had the most effect in increasing home comfort was the —
   1 spinning jenny  6 lightning rod  7 power loom  8 iron stove.
67 The Constitution of the United States was drawn up at —
68 People of 1875 could use — 5 radios  6 automobiles  7 motion pictures  8 reapers.
69 The mountains just west of the Central Plains are the —
   1 Appalachians  2 Sierra Nevada  3 White  4 Rockies.
70 The country that has the most people is —
   5 China  6 India  7 Brazil  8 the United States.

Stop.
TEST 8 Science

DIRECTIONS: Choose the best answer for each exercise and mark the answer space that is numbered the same as your choice.

1. People use a magnifying glass to make things look —
   1. smaller  2. larger  3. brighter  4. smoother

2. Air is taken into the body by the —
   5. heart  6. lungs  7. liver  8. stomach

3. Pictures of broken bones are taken by means of —
   1. infra-red rays  2. X-rays  3. ultra-violet rays  4. cosmic rays

4. Water runs most easily off soil that is —
   5. plowed  6. covered with grass  7. hard and bare  8. planted with grain

5. Most automobile tires make riding smooth because they contain —
   1. water  2. sponges  3. air  4. oil

6. It is easiest to burn —
   5. glass  6. coal  7. copper  8. granite

7. If you suspect a gas leak, you should —
   1. report it  2. do nothing  3. light the stove  4. look for it with a match

8. When a large part of the earth’s crust moves suddenly, it is —
   5. an earthquake  6. a volcano  7. a hot spring  8. a mountain

9. The brain is located in the —
   1. neck  2. abdomen  3. chest  4. head

10. It is very dangerous to drive an automobile after drinking a considerable amount of —
    5. coffee  6. tea  7. ginger ale  8. alcohol

11. Water left in an open dish in a warm room —
    1. condenses  2. evaporates  3. distills  4. radiates

12. Insects that work best together are —
    5. mosquitoes  6. flies  7. ants  8. moths

13. A good tooth powder can be made from —
    1. salt and soda  2. flour and water  3. sugar and water  4. sugar and flour

14. An animal that is now very rare because of reckless killing is the —
    5. deer  6. robin  7. sparrow  8. buffalo

15. The part of the air we use most in our bodies is —
    1. carbon dioxide  2. oxygen  3. nitrogen  4. helium

16. The best of these ways to cure a cold is to —
    5. take aspirin  6. take hot baths  7. get into the open air  8. stay in bed

17. Artificial respiration is given to restore —
    1. breathing  2. digestion  3. appetites  4. sight

18. The seasons are caused by the —
    5. moon  6. sun  7. sky  8. winds

19. Kelp is a common —
    1. seaweed  2. bird  3. rock  4. tree

20. The ocean has two high and two low tides every —
    5. day  6. week  7. month  8. year

21. In general, farm crops are affected most by —
    1. the cost of plows  2. field mice  3. crows  4. weather conditions

22. Lockjaw is most likely to result from wounds made by —
    5. glass  6. rusty nails  7. thorns  8. needles

23. Gravity gives objects —
    1. weight  2. density  3. color  4. size

24. Fish need gills for the same reason that we need —
    5. legs  6. a stomach  7. skin  8. lungs

25. Stars are probably shaped like —
    1. pointed rocks  2. large balls  3. flat plates  4. hollow cups

Go on to the next page.
26 The celery plant stores most of its food in its — 5 stalks 6 leaves 7 roots 8 bark
27 A magnet will attract — 1 glass 2 aluminum 3 brass 4 iron
28 To escape yellow fever, one should avoid — 5 poor food 6 stale air 7 certain mosquitoes 8 diseased rats
29 Men use seaweed for making — 1 small boats 2 fertilizer 3 surfboards 4 sails
30 In taking a blood count, the doctor records the number of — 5 red corpuscles 6 genes 7 bacteria 8 nuclei
31 A bird that eats mice is the — 1 swallow 2 robin 3 sparrow 4 owl
32 Climate is affected by an ocean current’s — 5 speed 6 temperature 7 depth 8 color
33 Pressure points to stop bleeding are located on the — 1 capillaries 2 tendons 3 arteries 4 heart
34 Tuberculosis is most often a disease of the — 5 heart 6 kidneys 7 lungs 8 liver
35 The animal which would be least helpful in a garden would be a — 1 toad 2 king snake 3 ladybug 4 gopher
36 The star that is necessary for life on the earth is — 5 the sun 6 the Evening Star 7 the North Star 8 Mercury
37 Mushrooms and toadstools are — 1 fungi 2 melons 3 ferns 4 mosses
38 The central source of control of the body uses the — 5 circulatory system 6 digestive system 7 thyroid gland 8 nervous system
39 It is most difficult to store water in soil made of — 1 clay 2 loam 3 sandy loam 4 sand
40 When we hear a sound, we know that — 5 there is electricity around us 6 something is vibrating 7 there is static 8 the sound is loud
41 The energy of running water can be transformed into electricity by — 1 electric motors 2 transformers 3 generators 4 steam engines
42 First-aid treatment for a person overcome by carbon monoxide is — 5 cold packs 6 vomiting 7 ammonia fumes 8 artificial respiration
43 Which one is most necessary for human life? 1 fish 2 automobiles 3 cows 4 plants
44 The most harmful effect of plowing the grassy plains was that it caused — 5 many birds to die 6 a decrease in the food supply 7 prairie fires 8 the soil to wash away
45 Some plants have cockleburs which cling to animals and thus help the plant — 1 defend itself 2 spread its seed 3 move around 4 get food
46 Adding fertilizer to the soil improves plants by — 5 protecting them from insects 6 adding moisture to the soil 7 furnishing materials for food 8 making a mulch
47 Air is made impure by — 1 engine exhausts 2 fog 3 winds 4 electric storms
48 Which would be of least help in finding your way in daytime? 5 sun 6 wind 7 shadows 8 compass
49 Rain most often results when cloud formations are — 1 cooled 2 warmed 3 electrified 4 stirred by wind

Stop.
DIRECTIONS: Choose the best answer for each exercise and mark the answer space that is lettered the same as your choice.

Use the bar graph below in answering questions 1–5.

**Average Rainfall in Six Cities**

<table>
<thead>
<tr>
<th>City</th>
<th>Inches</th>
</tr>
</thead>
<tbody>
<tr>
<td>Reno</td>
<td>10</td>
</tr>
<tr>
<td>Omaha</td>
<td>20</td>
</tr>
<tr>
<td>Miami</td>
<td>30</td>
</tr>
<tr>
<td>Seattle</td>
<td>40</td>
</tr>
<tr>
<td>New York</td>
<td>50</td>
</tr>
<tr>
<td>Denver</td>
<td>60</td>
</tr>
</tbody>
</table>

1. Which city has the greatest average rainfall?  
   a New York  b Miami  c Omaha  d Seattle

2. Which city has the lowest average rainfall?  
   e Reno  f Omaha  g Denver  h Seattle

3. The highest average rainfall for any of these cities is nearest —  
   a 10 in.  b 50 in.  c 60 in.  d 80 in.

4. How many cities on the chart have an average rainfall over 28 inches?  
   e 1  f 2  g 3  h 4

5. The lowest average rainfall for any of these cities is nearest —  
   a 3 in.  b 5 in.  c 8 in.  d 10 in.

Use the line graph below in answering questions 6–10.

**Number of Boxes Sold Each Week for a Six-Week Period**

6. How many boxes were sold during the third week?  
   e 40  f 60  g 80  h 100

7. In which week were just 60 boxes sold?  
   a 3rd  b 4th  c 5th  d 6th

8. In which week was the largest number of boxes sold?  
   e 1st  f 2nd  g 5th  h 6th

9. For which week did sales decrease most from the sales of the week before?  
   a 1st  b 3rd  c 4th  d 6th

10. The general trend of sales over the six-week period is one of —  
    e gradual decrease  f sharp decrease  
    g gradual increase  h sharp increase

Use the table below in answering questions 11–15.

**Weather Station Reports for a 24-Hour Period at Selected Places**

<table>
<thead>
<tr>
<th>Weather Station</th>
<th>Temperature (Degrees F.)</th>
<th>Rain or Snow (Inches)</th>
<th>Clouds</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ada</td>
<td>33</td>
<td>18</td>
<td>clear</td>
</tr>
<tr>
<td>Bay City</td>
<td>70</td>
<td>45</td>
<td>clear</td>
</tr>
<tr>
<td>Cook</td>
<td>56</td>
<td>34</td>
<td>partly clear</td>
</tr>
<tr>
<td>Hart</td>
<td>57</td>
<td>35</td>
<td>partly clear</td>
</tr>
<tr>
<td>Kent</td>
<td>61</td>
<td>34</td>
<td>partly clear</td>
</tr>
<tr>
<td>Lima</td>
<td>66</td>
<td>60</td>
<td>clear</td>
</tr>
<tr>
<td>Scott</td>
<td>72</td>
<td>32</td>
<td>clear</td>
</tr>
<tr>
<td>Timber</td>
<td>28</td>
<td>20</td>
<td>clear</td>
</tr>
</tbody>
</table>

11. The place receiving the most rain or snow was —  
   a Cook  b Kent  c Timber  d Bay City

12. The lowest temperature was recorded at —  
    e Scott  f Kent  g Ada  h Timber

13. A place which had a clear day with snow on the ground was most likely —  
    a Timber  b Hart  c Ada  d Scott

14. The place with the greatest 24-hour difference in temperature was —  
    e Cook  f Scott  g Bay City  h Timber

15. The lowest average temperature (high and low together) was at —  
    a Cook  b Lima  c Ada  d Timber
TEST 9 Study Skills Part II. Map Reading

DIRECTIONS: On this page there are some maps with the usual symbols, but they are not maps of real places. Read an exercise and then find the answer from the map. Mark the answer space that is lettered the same as your choice.

Use Map 1 in answering questions 16-24.

16 The capital city is — a Alvin b Bayside c Ford d Powell
17 A sector which has no river, lake, or ocean is — e 1 f 4 g 6 h 9
18 The town farthest from any other town is — a Powell b Dale c Bayside d Pine
19 The town located most directly east of Wood is — e Ford f Pine g Alvin h Bayside
20 A town which has no railroad is — a Dale b Powell c Alvin d Bayside
21 A town which is situated on a river and is a railroad junction is — e Dale f Ford g Wood h Pine
22 The distance by air from Pine to Alvin is about — a 100 mi. b 130 mi. c 200 mi. d 250 mi.
23 The sector with the least amount of land is — e 2 f 3 g 5 h 8
24 Little Stony River flows — a northwest b Bayside c southwest d southeast

Use Map 2 in answering questions 25-34.

25 The most mountainous road is from — e Luis to Cory f Rita to Emery g Rita to Otis h Chama to Erie
26 Of these four towns, the largest is — a Cory b Luis c Dicks d Otis
27 Emery and Dicks are joined by a — e railroad f state highway g river h U. S. highway
28 A completely paved road from Cory to Otis goes through — a Adder b Dicks c Luis d Erie
29 A highway which runs for several miles on a county line is number — e 16 f 23 g 27 h 154
30 The most tourist camps are probably at — a Adder b Ball c Dicks d Chama
31 The county with the most people indicated is — e Butler f Adams g Allen h Corn
32 The direction from Emery to Rita is — a northwest b southeast c southwest d northeast
33 The east-west distance across Allen County is approximately — e 15 mi. f 25 mi. g 35 mi. h 45 mi.
34 The distance by road from Luis to Rita is — a 26 mi. b 31 mi. c 33 mi. d 41 mi.
Directions: This part of the test is on the use of the dictionary, location of information in references, and use of an index. Choose the one best answer and mark the answer space that has the same number as your choice.

35 Where would you look for the meaning of the word padre?
1 dictionary 2 history book 3 information almanac 4 language book

36 Where would you find information on the life stages of the butterfly?
5 Boy Scout Handbook 6 geography book
7 nature study handbook 8 household magazine

37 Where would you find the driving distance from Chicago, Illinois, to Rockford, Illinois?
1 globe 2 road map 3 encyclopedia 4 geography book

38 Where would the part played by the United States Navy in the Spanish-American War be discussed?
5 information almanac 6 history book 7 dictionary 8 atlas

39 Information on the Monroe Doctrine would be located in an index under —
1 President Monroe 2 foreign policy 3 Great Britain 4 Monroe Doctrine

40 In an index the topic under habitat leading to information on where Fiddler crabs live is —
5 animals 6 reptiles 7 crabs 8 insects

41 Where is the best place to find the rules for spelling?
1 encyclopedia 2 information almanac 3 Readers’ Guide to Periodical Literature 4 dictionary

42 On which syllable is Hö nö lōo lōō accented?
5 first 6 second 7 third 8 fourth

43 Which of the following forms is the base word?
1 leaf 2 leafage 3 leaflet 4 leafless

44 The story of President Coolidge’s intervention in a coal strike would be found through an index of an encyclopedia under —
5 coal strike 6 Coolidge 7 labor 8 strike

45 Where is the best place to find which states bound Indiana?
1 information almanac 2 dictionary 3 history book 4 atlas

46 A reference to cattle-grazing conditions in India would be found in an encyclopedia under —
5 grazing 6 dairying 7 India 8 cattle

There are guide words at the top of each dictionary page. Use the guide words below to answer the next three questions.

lap 209 larkspur larrkin 210 lateral laterite 211 launce

47 The word larrup would be on page —
1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 32 33 34 35 36 37 38 39 40 41 42 43 44 45 46 47 48 49

48 The word Lapp would be on page —
5 209 6 210 7 211 8 none of these

49 The word lariat would be on page —
1 2 3 4 none of these

Stop.
LINCOLN INTERMEDIATE SPELLING TEST, Form D
PREPARED BY A. L. LINCOLN

NAME ___________________________ DATE __________ AGE ___________________________

SCHOOL ___________________________ CITY ___________________________ DATE OF BIRTH __________

GRADE OR CLASS ___________ TITLE OF ENGLISH COURSE ___________ TEACHER ___________

DIRECTIONS: - Use a well-sharpened pencil and write plainly. Writing which is not plain will count against you. If you can print well, it is suggested that you print each word. The sentences below are given in order to help you understand the words to be spelled. As each word is pronounced by the teacher, read the corresponding sentence, and write the word on the long line, not on the short line. The correct use of hyphens, solids, and two unjoined words is required.

DO NOT WRITE IN THIS SPACE

<table>
<thead>
<tr>
<th>1</th>
<th>11</th>
<th>21</th>
<th>31</th>
<th>41</th>
<th>51</th>
<th>61</th>
<th>71</th>
<th>81</th>
<th>91</th>
</tr>
</thead>
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Score _______ PR _______ TOTAL

1. I like when I am walking.
2. Mary bought three of candy.
3. The baby for the toy.
4. My cousin is now near us.
5. I saw the boy across the street.
6. I waited I heard the signal.
7. Please be when you drive.
8. At what time did you see him?
9. Almost the village watched the parade.
10. At two there was a loud explosion.
11. A plane flew over the ship.
12. My are coming tomorrow.
13. John two lessons each evening.
14. Sister is a letter to Aunt Jane.
15. It doesn't which book you read.
16. The was pulling a long train.

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17. Your____ is very much appreciated.
18. That is a_____ of my grandmother.
19. Did you_____ a captain for your team?
20. I found____ watch in the yard.
21. Mother is_____ her dress.
22. I don't_____ the story.
23. He had_____ all day long.
24. I will_____ be present tomorrow.
25. He was_____ the cows out of the barn.
26. What is the_____ of the bill?
27. I finished the work,_____ I did not feel well.
28. The_____ has a large supply of meat.
29. I think_____ is stronger than wood.
30. James_____ been at school this week.
31. September 7th is the_____ day of school.
32. The_____ ran and hid behind a wall.
33. Charles is_____ his history lesson.
34. Susan is_____ years old.
35. I attended a_____ last Saturday.
36. The man_____ we met was lame.
37. Why do you_____ him?
38. I shall call you by_____ this evening.
39. Everyone_____ Arthur is present.
40. We like_____ for breakfast.
41. The nurse's new_____ is white.
42. Clara didn't mean to_____ you.
43. We made several_____ into the forest.
44. He could_____ hear the whistle.
45. What are you in that package?
46. Mother is a letter from father.
47. Rover is a very dog.
48. Don't to ask for help.
49. What is the event of the week?
50. All of the faces showed much suffering.
51. The sells milk to the public.
52. America's trade has increased.
53. Our have asked for peace.
54. The deer was seen twice near the barn.
55. His name was from the roll.
56. We you as very good workers.
57. How many generals can you name?
58. My father is engaged in the of furniture.
59. By did you travel?
60. The sand along this is clean.
61. In our city there is a which cares for animals.
62. I want you to write a letter.
63. How long were you by the storm?
64. We were successful in his help.
65. Admiral Byrd is for his explorations.
66. His impressed everyone.
67. Let us divide the money right now.
68. What is the of this train?
69. We have Mrs. Brown's invitation.
70. Please send this by mail.
71. He put effort into his work.
72. The truck was by a band of thugs.
LINCOLN INTERMEDIATE SPELLING TEST

73. Jane has ____ for the position.
74. Frank was ____ the case for his side.
75. Our baggage has been ____ to the boat.
76. I can't ____ what has happened.
77. We have received ____ messages from him.
78. Courses in ____ are taught in this school.
79. The school expects ____ behavior from everyone.
80. Don't you think ____ better go?
81. Ellen's cheerful ____ makes me like her.
82. The young prince is ____ to the throne.
83. We laughed ____ at the joke.
84. Is it ____ that we attend the meeting?
85. I have obtained a ____ for my invention.
86. The ____ of the train has been changed.
87. It is ____ certain that our team will win.
88. Mr. Clayton is the chief ____ of this store.
89. This coat was ____ cleaned.
90. Mr. King is a ____ man.
91. Our oldest educational ____ is Harvard.
92. We are very much ____ by the news.
93. We do not ____ travel by this road.
94. There has been a ____ change of weather.
95. The expedition was well ____ for the voyage.
96. A ____ has been appointed to arrange for a picnic.
97. The book was ____ several weeks ago.
98. Who is conducting the ____ of the crime?
99. The children showed much ____ toward one another.
100. The ____ farm contains 40 acres.
BIBLIOGRAPHY

Books


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**Unpublished Materials**


**Manuals**


VITA

Ida M. Ross

EDUCATION:  A. B. Clark College, Home Economics and Biology, 1940;
Graduate Study, Atlanta University, Education.

EXPERIENCE:  Secondary School Teacher, 1940-1947; Elementary School
Courses taught:  Home Economics, Science and Arithmetic.

FIELDS OF CONCENTRATION:  Undergraduate - Home Economics and Biology.
Graduate - Elementary Education.

PERSONAL INFORMATION:  41 years of age; Married, four children;
member of the G. T. E. A., N. E. A., Alpha Kappa
Sorority; Order of the Eastern Stars, Y. W. C. A.;
Warren Memorial Church; Traveled and lived in
Europe 2½ years; Husband has returned from Army and
completing undergraduate education.