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## STUDIES IN EDUCATION

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# DETERMINATION OF A SPELLING VOCABULARY BASED UPON WRITTEN CORRESPONDENCE 

BY

William Niclaus Andersen

PUBLISHED BY THE UNIVERSITY, IOWA CITY

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# UNIVERSITY OF IOWA STUDIES IN EDUCATION 

Charles L. Robbins’, Ph. D., Editor

# DETERMINATION OF A SPELLING VOCABULARY BASED UPON WRITTEN CORRESPONDENCE 

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## EDITOR'S NOTE

After an interruption of several years, the University of Iowa Studies in Education are now resumed with this monograph by Dr. W. N. Andersen. The first three numbers, which appeared in the years 1911 and 1912, included the following:

1. A Comparison of Elementary and High School Grades, by Walter R. Miles;
2. A Comparative Study of City and Rural School Attendance, by Ernest Wilder Fellows;
3. A Rational Basis for Determining Fitness for College Entrance, by Franklin 0. Smith.
As these numbers are now out of print, a new volume of which the present monograph is the first number is begun herewith.

## AUTHOR'S NOTE

The author wishes to express his indebtedness to those whose assistance has made this study possible.' It is only through the efficient coöperation of superintendents, principals, teachers, and children that such a study as this can be made. It is with a sense of obligation, therefore, that I express my thanks to all those who have helped in the collection of data. Among these are the following 22 school superintendents, principals, and school officers of Iowa: H. W. Anderson, Dubuque; W. W. Ballard, Rockford; G. H. Brinegar, Bloomfield; M. G. Clark, Sioux City ; H. H. Gold, Neola; E. T. Housh, Carroll; W. I. Griffith, Waverly; W. S. Smiley, Stuart; F. J. Nieland, Huxley ; F. T. Vasey, Charles City ; A. O. Tiss, Cresco; O. E. Smith, Indianola; S. W. Johnson, Oelwein; H. P. Smith, Newton; B. K. Orr, Stanton; C. H. Studebaker, Jefferson; J. M. Evans, Tabor; J. L. Packer, West Liberty; P. C. Packer, Iowa City; R. A. Greenslit, Baxter ; J. W. Studebaker, Des Moines; J. H. Beveridge, Council Bluffs. A. J. Burton of Rock Island, Ill., also supplied letters written in Iowa. To these and the teachers and children of their respective schools the author acknowledges his indebtedness. Special thanks are due Dr. Ernest Horn for suggesting the method of attack in using public school pupils to score the material and to insure a wide distribution, and to Prof. E. E. Lewis for helpful suggestions and advice. Acknowledgement is also due Drs. Irving King, Rolland Stewart, Forest C. Ensign, and Fred C. Ayer.
August, 1917.


## CHAPTER I

## STUDIES OF WRITING VOCABULARY

Since the beginning of the present century the scientific study of education has begun to assume a place of preëminent importance. In three lines there has been notable progress: (1) the selection of subject matter; (2) the determination of efficient methods of teaching and learning; and (3) the formulation of more or less objective measurements of educational results. Perhaps in no subject has more experimental work been done than in spelling.

A pioneer, to whom it is hardly possible to give too much credit, was Dr. J. M. Rice, whose presentation of The Futility of the Spelling Grind may be considered the beginning of a long series of studies in the selection of words to be taught, the methods of measuring results, and methods of teaching. Although his word lists were not compiled scientifically and his methods of measurement were crude, he did much to open up new fields of investigation.

As the study which is presented here is an attempt to determine a spelling vocabulary, it seems well to give a critical account of the contributions of others who have been working in the same field. Criticisms are made with a full recognition of the value of these studies as pioneer contributions.

## STUDY BY REV. J. KNOWLES

In 1904 a study was made by the Rev. J. Knowles in London, England, and published in a pamphlet entitled The London Point-System of Reading for the Blind. This investigator took passages from the English Bible and from various authors, containing in all about 100,000 words. He made a list of 353 words which occurred most frequently. These 353 words with their repetitions, according to Knowles, were found to account for three-fourths of the total number of words used. No record was made in this study of the total number of different words.

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\text { STUDY BY R. C. ELDRIDGE }{ }^{34}
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R. C. Eldridge of Niagara Falls, New York, made a study of
the vocabularies of 250 different articles taken from two pages each of four Buffalo, New York, Sunday newspapers of different dates. The 250 articles were found to contain 43,989 running words and 6002 different words. Proper nouns and numerals were not recorded. Four separate lists were made of the words and these were merged into a single list, in which the words were arranged in order of their frequency of occurrence. According to Eldridge, the first 250 words in the list constitute the chief English sentence-forming words, and the first 750 words with their repetitions were found to constitute threefourths of all the words tabulated.

STUDY BY L. P. AYRES ${ }^{3}$

In a study conducted by Dr. L. P. Ayres of the Russell Sage Foundation, and published in 1913, the first word of every line of 2000 short letters written by 2000 persons, was tabulated. Twenty-three thousand six hundred twenty-nine words were thus tabulated out of a total of 101,160 . The total number of different words, however, was only 2001. Of these 2001 different words 750 occurred only once each, and only 542 occurred six or more times each. These words were arranged in order of their frequency. According to the author these letters had been secured from twelve sources and represented a wide range of different interests.

The first word in each line was scored and a separate tabulation was made of the salutations and endings. In view of the magnitude and variety of this correspondence and the small number of different words that were found, it becomes doubtful that this method of scoring is sufficiently reliable to determine the number of words used. It seems almost incredible that in 2000 letters written by 2000 different persons only 2001 different words should be used, and that only 1251 of these were used more than once in all the letters.

## STUDY BY W. F. JONES ${ }^{52}$

The material used in this investigation consisted of the approximate writing vocabularies of 1050 grade students. Of this number there were about 150 pupils in each grade above the first. They were divided among four states as follows: one third from Illinois, one third from Maryland, and the
remaining third from Iowa and South Dakota. The number of themes per student ranged from 56 to 105 . The total number of themes written and examined was a little over 75,000 , and their average length was almost 190 words. The total number of words from these themes including repetitions was estimated by Jones as approximately $15,000,000$. But here also the total number of different words was only about 4532. Unfortunately Jones did not give the total number of words nor did he give the frequency of those found.

In view of the general criticism regarding some of the sub-ject-matter taught in our schools in the past, it may be questioned whether the words used in writing themes by pupils in school are a fair representation of those used in writing in life outside of school.

## STUDY BY W. A. COOK AND M. V. O'SHEA ${ }^{26}$

In 1914 W. A. Cook and M. V. O'Shea tabulated some 200,000 words taken from the family correspondence of 13 adults. Five of these correspondents were men and eight were women with varying degrees of academic training and representing a variety of environments and interests. While 200,000 running words were tabulated the total number of different words used was found to be only 5230 . Of these 5230 words 1804 occurred only once. Hence only about $651 / 2$ per cent of the words occurred more than once.

It is doubtful whether the words found in the correspondence of 13 individuals representing different environments and interests can be taken as representative of the words commonly used by the general public. One scholarly individual of varied interests and changing environment might easily affect the representative value of such a list by increasing the number of words out of all proportion to the number commonly used in writing.

## JOHNSTOWN, PENNSYLVANIA, LIST

During 1912-13 a special study of spelling was made by the teachers and grade supervisors of the Johnstown, Pennsylvania, public schools. The results of this study were published in 1913 in a monograph entitled, The Teaching of Spelling. According to the monograph, a list of 4032 words was made up
in the following manner: Each year a carefully selected list of words was chosen for each grade from lessons in reading, language, geography, history, naure study, and arithmetic-words most commonly used in written work. The final list consisted of two new words for each day in the first four grades, and five words a day for the remaining four grades, with Friday of every week left for review work. These words were intended only for the spelling period. It is conceded by the authors that pupils will have to learn to spell many additional words in their other studies. Inasmuch as the selection of these words was arbitrary the reliability of the list as representing words most commonly used may be said to depend, in a measure at least, on the judgment of those who selected the words.

## STUDY BY BOSTON ELEMENTARY SCHOOL TEACHERS

The teachers from the 70 elementary districts of Boston prepared a list of words from those most often misspelled by pupils in their written work. The words recorded by the teachers were combined into a complete list for each grade, arranged in alphabetical order. From this list minimum and supplementary lists were compiled, largely on the basis of the number of times the words were reported by different teachers. Altogether there were 15,223 words recorded by the different teachers, but in this number there were only 5231 different words. Fifty-five per cent of this number or 2883 words were reported by only one teacher. Only 2348 words were reported by two or more teachers. The final minimal and supplementary lists compiled contained 840 and 2542 words respectively.

This study is interesting and very significant in so far as it shows which words were most frequently misspelled. It does not show, however, whether these are the words that are commonly used in writing.

## STUDY BY EFFIE McFADDEN AND FREDERICK BURK

Miss Effie McFadden and Dr. Frederick Burk of the State Normal School, San Francisco, California, prepared a list comprising all the words used two or more times in 91 letters. These letters were written by Normal students, their relatives and friends. In this study 6916 different words were found in a total of 19,288 running words. Of these 6916 different words
only 840 were used more than once. This means that the letters averaged about 212 words in length; that nearly 36 per cent of the total number of running words was composed of different words; and that, on the average, only about nine words were used more than once in each of the letters. According to Burk, proper nouns were not recorded and not all derivative forms were counted as separate words.

The percentage of different words found in this study is extraordinarily high as compared with the findings of other investigators. Notwithstanding the fact that the study is very limited in scope and that the correspondence was probably of a diverse and varied nature, it seems strange that the difference should be so great.

## STUDY BY C. K. STUDLEY AND ALLISON WARE ${ }^{68}$

Another study published in 1914 was that of C. K. Studley and Allison Ware of the Chico, California, State Normal School. They prepared a list of 3470 words. The list is a compilation of the words found (1) in Dr. Leonard P. Ayres' Spelling Vo. cabularies of Personal and Business Letters, (2) in the list prepared by Miss Effie McFadden and Dr. Frederick Burk of the San Francisco, California, State Normal School, and (3) in a list derived from 920 compositions written by the children of the Chico, California, District. The 920 compositions were selected at random from the city and rural schools of the district of Chico. In these compositions some 200,000 words were inspected and from a total number of 3459 different words a final list of 2088 was prepared. The 1371 words omitted from the final list were mostly different forms of the same word, proper nouns, and technical words.

## THE AYRES LIST OF ONE THOUSAND WORDS ${ }^{2}$

Leonard P. Ayres in his Measuring Scale for Ability in Spelling, published by the Russell Sage Foundation in 1915, has a list of 1000 words which occur most frequently in the follow. ing four studies: (1) Vocabularies of Personal and Business Letters, by Leonard P. Ayres, (2) Cook and O'Shea's study of personal letters, (3) Eldridge's Six Thousand Common English Words, (4) The London Point System of Reading for the Blind, by Rev. J. Knowles. According to the author, "The
list of 1000 words finally selected was determined upon by finding the frequency with which each word appeared in the tabulations of each study, weighing that frequency according to the size of the base of which it was a part, adding the four frequencies thus obtained, and finding their average."

The extent to which words compiled from lists made by others are representative of words most commonly used depends, of course, on the representative value of the lists from which they are taken. With regard to the above study it should be borne in mind that two of the original studies from which this list was compiled were not studies of written correspondence.

## STUDY BY E. E. LEWIS

In 1915 a list of 2040 words was prepared by E. E. Lewis of the College of Education, University of Iowa. In the words of A. M. Deyoe, Superintendent of Public Instruction, "the list has been prepared for special use in the High School Normal Training Courses and will be made the basis of the Normal Training examination in orthography. One hundred words will be selected from this list at each normal training examination and the grade in orthography will be determined wholly from the results of the examination."

The words in this list were selected arbitrarily, principally from those found in the word lists made by the following: J. Knowles, H. C. Eldridge, L. P. Ayres, W. A. Cook, and M. V. O'Shea.

## THE HOMER J. SMITH LISTS ${ }^{74}$

Homer J. Smith of the Milwaukee Trade School compiled three lists from a total of 1138 words. These words were chosen from 75,000 running words found in themes of the elementary school pupils of Madison, Wisconsin. (grades 3-8 inclusive). The first list contained 272 words which were used by the pupils in all of the grades; the second list contained 542 words used by at least three of the grades; the third list contained 344 words used by pupils in two different grades. Personal, demonstrative, and possessive pronouns; numerals; about 30 common prepositions; verbs and adverbs; and local proper words were omitted.

Here also the question might be raised as to whether words taken from pupils' themes are representative of words used in life outside of school.

## THE EMPORIUM, SAN FRANCISCO, AND HALE'S DEPARTMENT STORE LIST

The list of words compiled by the Emporium, San Francisco, and Hale's Department Store was obtained by an analysis of 400 letters. These 400 letters contained a total of 10,834 words, including repetitions. In this number there were found to be 1576 different words, counting inflections and derivatives separately, and 1058 different words listing inflected and derived forms under the root word.

## THE CALIFORNIA BARREL COMPANY LIST

The California Barrel Company compiled a list of words by analyzing 100 letters of their correspondence. These letters were found to contain a total of 2412 words, including repetitions. In this number there were 665 different words.

## THE STUDY BY HUGH CLARK PRYOR ${ }^{74}$

During the past few years an extensive study and compilation of a "minimal" spelling list has been made by Hugh Clark Pryor of the University of Colorado. The words in this list, according to the author, were taken from the following spelling tests and word lists: (1) Concrete Investigation of the Material of English Spelling, W. F. Jones; (2) The Child's Own Spelling Book, W. F. Jones; (3) Common Essentials in Spelling, C. K. Studley and Allison Ware; (4) The Need of Intensive Work in Spelling (unpublished), Algar Woolfolk; (5) The list compiled by Homer J. Smith; (6) The list prepared by the teachers and supervisors of the public schools of Johnstown, Pa.; (7) Spelling in the Boston Schools, a list prepared by the teachers of the public schools; (8) Measuring Scale for Ability in Spelling, Leonard P. Ayres; (9) Champion Spelling Book, Warren E. Hicks; (10) One Thousand Words, W. E. Chancellor; (11) The Child and his Spelling, W. A. Cook and M. V. O'Shea; (12) Six Thousand English Words, R. C. Eldridge.

Each of these lists was numbered and all the words were checked off in a dictionary. After this was done a final list of 1309 words was compiled, each of which occurred in at least
six out of the 12 lists examined. In addition to these 1309 words, 169 were taken from the Ayres Scale. In this way a final list of 1478 words was made. These words were arranged by grades and submitted as a tentative graded list by the author.

## COMPARISON OF DIFFERENT STUDIES

In comparing the total number of words and the number of different words found in the various studies the reader is again cautioned that some of the findings are not strictly comparable with others because the methods of scoring were not exactly the same. In some of these studies inflected and derived words were listed separately in the list of different words while in a few cases they were listed under the root word. In the majority of the studies the method of recording is sufficiently explained, in others it is implied from the nature of the data.

The most significant thing about all these studies is the limited number of words found to be commonly used. This fact is so contrary to opinions formerly held that there is still a lingering doubt concerning the reliability of the results, and a feeling that more correspondence should be tabulated to verify the data thus obtained. It is this uncertainty that has led the author to undertake the present study and tabulation of words as an addition to what has already been done.

## CHAPTER II

## AIM AND METHOD

## Aim

The aim of the present study is (1) to supplement and expand the work that has been done in the various previous studies, (2) to show comparatively, by extensive tabulations, the number of words that are common in the writing vocabularies of persons in various callings, (3) to show the extent and range of vocabularies used by persons in certain different callings, (4) to point out the educational significance of these findings.

## Method of Procedure

Thirty-seven hundred and twenty-three letters, written by adults engaged in over 35 different occupations and callings in the state of Iowa, were, with a few slight and unimportant exceptions ${ }^{1}$, collected by the public-school children in the seventh, eighth, and ninth grades of 22 towns and cities throughout the state. From these letters word-lists were made by the pupils according to printed directions sent out by the writer. The matter was first taken up with the superintendents. A letter to superintendents and teachers was then sent out, together with copies of directions for pupils. The following are copies of the letter and directions:

## LETTER TO SUPERINTENDENTS AND TEACHERS

We are asking your kind assistance and coöperation in this study on spelling, to be made according to the "Directions for Pupils" sent you. Our purpose is to make a careful and extensive study of the words collected in this manner. We prefer to have the work done by any two grades above the fifth, including high school. Other things being equal, the seventh and eight grades would probably be the most suitable.

In order to simplify the work we have endeavored to make the directions as complete as possible. These directions have been worked out while the work was carried on in different grades of the Experimental School of the University and in the public schools of Iowa

[^1]City. We found most of the pupils very much interested and glad to do the work. The enthusiasm of the pupils, however, will depend largely on the attitude and spirit of the one in charge of the class. It is desirable that pupils use paper of uniform size.
In order to assure greater accuracy in the recording of the misspelled words, we ask that the pupils be drilled on the following list of words before they begin the work:

| to | knew | whole | lose |
| :--- | :--- | :--- | :--- |
| too | seem | brake | principle |
| two | seam | break | principal |
| there | meet | ate | whether |
| their | meat | eight | weather |
| where | mail | seen | separate |
| wear | male | scene | been |
| here | which | piece | meant |
| hear | witch | peace | choose |
| deer | need | accept | coming |
| dear | knead | except | received |
| new | hole | loose |  |

Nearly all these words have been selected because of their frequency from the list of One Thousand Most Common Words by L. P. Ayres, and from the list of One Hundred Spelling Demons by W. F. Jones. Many of the words occur in both lists. Hence, according to the findings of these investigators they are both commonly used and frequently misspelled.

After beginning the work it should be carried through without delay. We should greatly desire to have your returns in by December first as the work here cannot be started before all returns are in.

The data may be returned by C. O. D. Express.

## DIRECTIONS FOR PUPILS

The purpose of this study is to find out what words are used in letter writing so that we may be better able to tell what words we should first know how to spell.

Collecting of Letters-Each pupil is asked to collect from three to five letters, written in the state of Iowa by people over eighteen years of age. The letters collected by any one pupil should all be from people in the same occupation or profession, as domestic or housekeeper, farmer, drygoods merchant, druggist or drug clerk, teacher, minister, doctor, real estate man, milliner, etc. The letters should as far as possible be from different individuals in the same occupation or profession; that is, not all from the same person. If you have difficulty in getting letters from your parents ask some other relative or friend to help you. No doubt some classmate can get more letters than he needs and help you out. Letters that you are not
allowed to mark up or spoil can be copied word for word and the copy used for this purpose.
Misspelled Words-For misspelled words proceed as follows: Go over the letters and place a checkmark immediately over each word that is misspelled. If in doubt about the spelling consult a dictionary or write the doubtful words on a piece of paper and ask your teacher about their spelling. Homonyms misused should be marked as misspelled. To illustrate: If the word pear or pare is used in speaking of a pair of shoes it is misspelled. If the word to or too is used in speaking of two men it is misspelled. Capitalization can be disregarded.

When yoù have checked the misspelled words (if there are any) arrange them on a separate piece of paper in alphabetical order, in vertical columns. See any dictionary for alphabetical order. First write the word correctly and immediately following, on the same line write the word as it was misspelled in the letter. Example: cabbage . . . . . cabage enlarge . . . . . inlarge degrade . . . . . degrad fought . . . . . . faught
Recording all words-On a large sheet of paper (about $8 \times 10$ inches) record all the words in columns. Use the long side of the paper for the top and write the words in vertical columns. By doing this you will be able to get more columns on one page, and if you write small and distinctly you will be able to get all words beginning with the same letter in one column. There will be few words commencing with the letters $\mathbf{j}, \mathrm{k}, \mathrm{q}, \mathrm{v}, \mathrm{x}, \mathrm{y}, \mathrm{z}$, and some others.

Proceed as follows: First go through all the letters and draw a firm line through each word commencing with the letter a. Immediately after each line is drawn write the word on the large sheet of paper. Begin in the upper left hand corner and form the first column down the left side of the paper (the end or short side of the sheet). In this way go through all the letters and record all words commencing with the letter $a$, then all words commencing with $b$, and so on through the alphabet. Keep your pencil well sharpened and write small and distinctly so that you will be able to get all the words on one or two sheets of paper. Both sides can be used. The names of the persons need not be recorded, but all other words in the headings and closings of the letters should be included. The single letters "a," " I ," " 0 ," and all figures (numbers not written out) need not be recorded. Write all abbreviations as they occur in the letters. Any different spelling is to be considered a different word (Excepting words pluralized by adding " s " only). for example: Such words as "have," "having;" "plan," "planned," "planning;" 'refer," "referred" and "referring" should be recorded as different words. When the same word occurs two or more times do not rewrite it, but indicate its frequency by making a mark each time it occurs. If, for example, the word very occurs 14 times record it as follows: very $111=14$. In counting these words remember that the first mark was made when
the word occurred the second time and that the word and marks must therefore be added together. Keep these marks close together so that they will not be in the way for the next column of words. The marks can also be written immediately above the word.

When all words beginning with " $a$ " have been recorded start a new column with the words commencing with "b." In this way start a new column for each letter. By doing this instead of continuing the first column you can add any word that may have been overlooked the first time. It is well to draw a line between the columns. You will find that you can pick out each succeeding list of words more easily and more rapidly because two or more successive words and even entire lines will soon be marked out.

Arranging words in alphabetical order-You are now ready to rearrange and copy the words in ink as follows: On a new sheet of paper arrange the words in the same manner as before but in alphabetical order according to the first three letters of each word. You already have them arranged according to the first letter. After the first three letters the order can be disregarded. Example:

| abate | acid | back | bear |
| :--- | :--- | :--- | :--- |
| accede | added | bail | bite |

Note carefully the following: Before you begin to copy the words write (in ink) at the top of the first page the number of letters collected and the occupation or profession and sex of the persons who wrote and received the letters. Write this in the following manner:
Five letters by three doctors (two men and one woman). Three were written to a housekeeper (woman) and two written to a druggist (man). It may be, of course, that your letters are from a farmer or dentist written to a grocer and tailor. Then your heading would appear as follows: Four letters written by two farmers (men). One was written to a grocer (man) and three to a tailor (man). You may have different occupations but they can always be recorded in the same manner. You will need to write this heading only once (on the first page) and your columns of words can be started immediately under it. You can tell from your first page whether any of the columns of words will be too long for your paper. If so, use the short side up; that is, write the heading at the top the short way and form the columns of words under it, the long way. If none of the columns of words is too long always use the long side of the paper for the top.

When these lines have been written on the first page proceed as follows: Number your first list of words 1, 2, 3, 4, etc. with a lead pencil in the order that they are to be placed (alphabetically). Then copy them (in ink) on the new sheet according to the order that they are numbered, drawing a line through each word before you copy it. In this list the number of times a word occurs can be indicated by figures after the word. The word very would then be recorded as
follows: very 14. This list of words and the list of misspelled words will be sent by your teacher or superintendent to the University of Iowa and will be published later. It is necessary therefore that you do the work neatly. Write your name, grade and town at the bottom on one side of each sheet of paper and fasten all your papers together.

Grouping-If you have less than five letters analyzed in your list combine your work with that of some other pupil who has analyzed letters from people in the same calling or profession; that is, add the words of your two lists together and make a single list (in ink). It will not take long to do this after the words are alphabetically arranged. Each pupil can do half of this work or you can work together. This places a premium on getting five letters. If you can get as many as five letters in your own list you need not do this. If, however, one pupil has only three letters and another has four (from people in the same calling) combine the two into a list of seven. Where two lists are added together you need not write the heading again on this third combined list, but be sure to fasten the three lists together so that they will not come apart. Write both your names on this third list. The average pupil can do all the work in a few hours after the letters have been collected.

Always reread carefully that part of the directions which has to do only with the work which you are doing at the time. By doing this you will not become confused.

## SUMMARY

All papers sent in to the University should be neatly written in ink and the following should be observed:
(1) All misspelled words and how they were misspelled.
(2) The number of letters analyzed in the list of words.
(3) Occupation and sex of the persons who wrote the letters.
(4) Occupation and sex of the persons who received the letters.
(5) All words should be alphabetically arranged.
(6) Where pupils have less than five letters two sets of papers should be combined into a single list.
(7) Your name, grade, and town should be on each separate sheet.
(8) All papers of each pupil should be fastened together.

## CLASSIFICATION OF LETTERS

On pages 16 to 19 , inclusive, are shown the directions sent to superintendents, teachers and pupils. The original word-lists made by the pupils were sent to the University where they were classified into four general and five special groups as shown below.

The words in each of these groups were first compiled into separate lists and these were then made into a single table.

I Professional:
1 Librarians.
2 Trained nurses.
3 Editors, publishers, and reporters.
4 Clergymen.
5 Lawyers and judges.
6 Physicians and surgeons.
7 Dentists.
8 Druggists and pharmacists.
9 Engineers.
10 College presidents, officers, and professors.
11 Public school superintendents, principals, teachers.
12 Others.
II Business:
1 Insurance companies and agents.
2 Real estate dealers.
3 General salesmen and sales agencies.
4 Transportation companies.
5. Manufacturing.

6 Mining.
7 Live stock and poultry raisers and dealers.
8 Grain dealers.
9 Clerical.
10 Photographers.
11 Others.
III Domestic:
1 Homemakers and housekeepers.
2 Domestic servants and employees.
3 Nurses (untrained).
IV Miscellaneous:
1 Various letters grouped together in the word lists compiled by pupils so that they could not be classified separately.
2 Such letters as could not well be classified under the headings named.
V Personal (including friendship letters).
VI Doctors. VIII Farmers
VII Bankers. IX Automobile dealers.

## AIM AND METHOD OF GROUPING

The grouping under the general heads-professional, business, and domestic-is purely arbitrary. An attempt was made to follow the grouping of the United States Census Bureau but this was found unsuitable for the present purpose. It is evident that in the grouping adopted there are overlappings and misfits owing to the fact that different degrees of scholarship and intelligence are represented by persons in each of the different callings, and that the letters were written to persons in different callings and of varying degrees of intelligence and scholarship. A strict classification, therefore, on any single basis would be impracticable. Roughly speaking this general classification will show the range and frequency of words used by (1) those especially trained for the callings in which they are engaged, (2) those in semi-professional or semi-skilled, gainful occupations, which in general require no special preparation or training, (3) domestics and those not directly engaged in professional or gainful occupations.

## WORDS USED IN NINE DIFFERENT GROUPS

Table IX shows (1) the number of letters analyzed, (2) the number of different words, (3) the total number of running

TABLE IX
Words Used in Nine Different Groups of Correspondence

|  | No. of Total No. of |  | No. of different | words occurring |
| :---: | :---: | :---: | :---: | :---: |
|  | letters | running |  |  |
| Calling | analyzed | words | words | once only |
| 1 Professional | 700 | 71,147 | 4,848 | 1,821 |
| 2 Business | 900 | 84,459 | 3,256 | 664 |
| 3 Domestic | 700 | 61,368 | 3,820 | 1,607 |
| 4 Miscellaneous | 688 | 73,001 | 5,861 | 3,044 |
| 5 Personal ${ }^{1}$ | 149 | 14,778 | 1,980 | 1,008 |
| 6 Doctors | 124 | 14,014 | 2,222 | 1,130 |
| 7 Bankers | 164 | 13,614 | 1,915 | 922 |
| 8 Farmers | 160 | 14,513 | 1,754 | 835 |
| 9 Automobile Dealers | 138 | 14,290 | 1,881 | 775 |
| Totals ${ }^{2}$ | 3,723 | 361,184 | 9,223 | 3,217 |

words, (4) the number of words used only once in each of the nine separate groups of correspondence. In this table the "business letters" do not include any letters from bankers or from automobile dealers. No doctors' letters are included in the professional group.

[^2]With the automobile dealers', bankers', and doctors' letters excluded the general business and professional groups can hardly be considered as being properly represented.

In Table X the letters written by automobile dealers and bankers have been included in the general group of business letters and those written by doctors, in the professional group.

| TABLE X |  |  |  |
| :---: | :---: | :---: | :---: |
| Summary Classification of Correspondence |  |  |  |
|  | No. of let- | Total No. of | No. of dif- |
|  | ters analyzed | running word | ferent words |
| sional | 824 | 85,161 | 5,368 |
| ss | 1,202 | 112,363 | 4,105 |
| tic | 700 | 61,368 | 3,820 |
| laneous | 688 | 73,001 | 5,861 |
| al | 149 | 14,778 | 1,980 |
| rs | 160 | 14,513 | 1,754 |
|  | 3,723 | 361,184 | 9,223 |

## METHOD OF COUNTING DIFFERENT WORDS

In the list of different words every word of different spelling was considered a separate word, except where the word was pluralized by adding "s" only. Such words were recorded as singular. All proper nouns excepting days of the week, names of months, holidays, and nationalities were excluded. Abbreviations were recorded as they occurred in the letters. It may be said that names of persons and places of one's immediate neighborhood are highly important in a writing vocabulary. They cannot be classed as common words, however, because of their local nature.

## INTERPRETATION OF TABLES IX AND X

In interpreting Tables IX and X it should be borne in mind that here are fewer letters analyzed, and consequently fewer words in the various columns of the special groups. This classification was not made in order to compare the special groups with the general groups, but rather that the special groups might be compared one with another. From table XI it will be seen that if more letters had been included in these groups there would have been more different words.

The 3217 words which occurred once only equal nearly nine per cent of the total number of running words and about 35 per cent of the total number of different words.

## NUMBER OF WORDS FOUND IN DIFFERENT GROUPS

Table X shows that in the general groups the miscellaneous list contains the greatest number of different words,- 5681 . The professional group, including the doctors' letters, is second with 5368 different words, and the business group, including the bankers' and automobile dealers' letters, is third in the list with 4105 different words. In the special groups, shown in table IX, the doctors' list is first in number of different words, the personal list second, and the bankers' list third. In thus comparing the lists as to the number of different words attention is again called to the fact that they were not obtained from an equal number of running words and that the groups are therefore only roughly comparable. This is true especially of the general groups.

In the original tabulation into groups the number of different words occurring in the first 700 letters analyzed was kept separately for each of the professional, business, and domestic groups. The number of different words occurring in each of these respective groups was $4848 ; 2523$; and 3820 . In these groups there were no doctors', bankers', or automobile dealers' letters. It is safe to say, however, that the business correspondence analyzed contained a much smaller number of different words in an equal number of letters. Even the addition of the 376 words used exclusively by bankers and automobile dealers, in 302 additional letters, makes only 2899 different words used in the business group, as against 4848 in the professional and 3820 in the domestic groups.

## WORDS PECULIAR TO DIFFERENT GROUPS

By tabulating the words separately in general and special groups it was possible to show the number of words that were used exclusively in each of the respective special groups.

| TABLE XI |  |  |  |  |  |
| :--- | :---: | :---: | :---: | ---: | ---: |
|  | Words Used Exclusively in Special Vocations |  |  |  |  |
|  | Total | No. occurring | No. occurring | No. occurr- |  |
| Callings | number | only once | 2 times | ing | times |
| Coctors | 247 | 210 | 21 | 16 |  |
| Dankers | 121 | 111 | 5 | 5 |  |
| Farmers | 106 | 97 | 5 | 4 |  |
| Automobile <br> dealers | 155 | 132 | 9 | 14 |  |

The foregoing table shows, (1) the total number of words used exclusively in each of four special groups, (2) the number of these that occurred only once in each group, (3) the number that occurred two times in each group, (4) the number occurring three or more times in each group.*

From this table it will be seen that in the letters analyzed there were relatively few words peculiar to any of the four callings, and that few of these words were used more than once.

## SPECIAL TABULATION

In tabulating the words in each of the five special groups the number of different words was recorded at approximately the end of the first 3000 running words and at the end of approximately each additional 1000. By thus tabulating separately the words used by individuals in distinctly different callings it was thought possible to show more definitely the difference in the range of words used by persons in (1) professional and skilled callings and trades, (2) by those in semi-professional and semi-skilled callings and trades, (3) by those in non-professional and non-skilled occupations. The purpose had been to show comparatively, for the different classes, the decreasing number of additional new words used in each succeeding block or unit of approximately 1000 running words. It is evident that such a comparison as to range and frequency should be made only on a basis of an approximately equal number of total words used.

## METHOD OF RECORDING WORDS IN SUCCESSIVE UNITS

Table XII shows the number of different words found in each of twelve additional successive units of running words that were used by five different groups of correspondents. The

[^3]
larger of the successive pairs of numbers represent the additional running words and the smaller, the additional new words.

In counting out the running words for the successive units in the different groups all words in each of the letters were counted. The letters were then sorted and grouped so as to make as nearly as possible 1000 words per unit. This accounts for the fact that the number of running words in the respective units shown in the table is only approximately 1000. It will be seen that the total number of words occurring in the first three units were recorded collectively at the end of the third unit.

## WHAT THE TABLE SHOWS

From Table XII it will be seen that in the first 3000 running words (approximately) the doctors' list shows 1093 different words; that of the automobile dealer, 1057; and that of bankers, 977 ; while the personal list shows only 746 different words, and the farmers' list only 674 . This initial difference no doubt is due partly to a more common use of technical words in the specialized callings, in addition to common words. Aside from this the table reveals no tendencies from which reliable conclusions can be drawn. It will be seen that the number of new words introduced in each succeeding unit is still relatively high in the fourteenth and fifteenth thousand running words, in all the groups. If it had been possible to continue this tabulation with additional letters, new words would doubtless have occurred through many more thousands of running words. It is evident, however, that such words as did not occur in the first 14,000 or 15,000 running words are not likely to occur often thereafter. Occasional letters seem always to bring additional new words. But these words, it may be said, are uncommon and become less and less frequent in their occurrence. This is also shown in part by the large number of single occurrences shown in Table IX, page 21.

## DISTRIBUTION AND NON-LOCAL CHARACTER

The 22 towns and cities from which the original data were supplied represent practically every part of the state. In order to gain some idea of the probable distribution of letters collected in any one town or city a list was made of the post office
addresses from which 100 letters had come. These letters were collected by a group of seventh-grade children of Iowa City. Nothing was said to the children as to where to get the letters, aside from what was given in the general information in the printed directions. The 100 letters were found to have come from the following 39 places:

| 1 | Ames | 14 | Davenport | 27 | Newton |
| ---: | :--- | ---: | :--- | :--- | :--- |
| 2 | Atlantic | 15 | Des Moines | 28 | Oelwein |
| 3 | Bentley | 16 | Dexter | 29 | Rockford |
| 4 | Burlington | 17 | Elkader | 30 | Shellsburg |
| 5 | Cain | 18 | Fairfield | 31 | Shell Rock |
| 6 | Carroll | 19 | Greenfield | 32 | Sheldon |
| 7 | Cedar Falls | 20 | Independence | 33 | Sigourney |
| 8 | Cedar Rapids | 21 | Lansing | 34 | Storm Lake |
| 9 | Charter Oak | 22 | Lisbon | 35 | Stanton |
| 10 | Clinton | 23 | Lewis | 36 | Toledo |
| 11 | Columbus City | 24 | Marion | 37 | Trayer |
| 12 | Council Bluffs | 25 | Mt. Pleasant | 38 | Waterloo |
| 13 | Correctionville | 26 | Mt. Vernon | 39 | Williamsburg |

In this list of 100 letters from the above named towns and cities there were personal and friendship letters and letters from persons in each of the following professions and callings:

| Jewelers | Farmers | Adjutant General |
| :--- | :--- | :--- |
| Bankers | Housekeepers | Merchants |
| Manufacturers | School superintendents <br> Librarians |  |
|  | College students |  |

If we may judge from this the distribution of the other 3623 letters it seems unlikely that any considerable portion of the state has not been represented.

## REPRESENTATIVE CHARACTER OF WORDS SELECTED

The question naturally arises whether the final word list is adequately representative of persons in the various callings and occupations, and of the different educational levels throughout the country. Since the 3723 letters were collected from the parents and friends of the seventh, eighth, and ninth grade children of 22 different towns and cities, instead of being collected by one or a few individuals from persons representing a limited number of interests, it is reasonable to expect that the final word list represents a sufficiently large number of different occupations and callings, and a wide range of educational levels. The different callings and educational levels represented are shown on page 20.

## SCORING AND TABULATING

When the scope and magnitude of the work is considered and the fact that the original tabulations were made by the pupils of the seventh, eighth, and ninth grades of 22 different school systems, it becomes evident that absolute accuracy cannot be claimed for the recording of all words. Experience seems to show, however, that work of this nature done by children is as reliable as when done by adults. It will be seen also from the nature of the work that an occasional mistake on the part of pupils in recording words would in no way group so as to become cumulative, or tend in a given direction. Such mistakes, therefore, would result in a negligible error in the final word list. Every reasonable effort has been made to obtain the greatest possible degree of accuracy consistent with the nature of the work. The schools supplying the original data were selected with care. The matter was first taken up with the superintendent. After this the teachers were consulted and only those who were thought to be in position to have the work done well were asked to have it carried out by one or more classes. - The teachers and pupils were then supplied with printed directions. Copies of these directions are shown on pages 15 to 19 , inclusive. These directions were carefully worked out beforehand.

On the whole the returns of the work done by the pupils were very satisfactory. In every case where there was evidence of negligence or possible mistakes the entire list was thrown out. The words were then classified into general and special groups and compiled into single lists. This part of the work was done at the University with the help of four adult persons, selected because of their fitness for the work in question as shown by previous experience in work of a similar character. All calculations were gone over two or more times, and there is every reason to believe that the final totals are, if not absolutely correct, sufficiently accurate for all practical purposes.

No record was kept of the number of individuals who had written the 3723 letters collected. Pupils were asked to collect the letters as far as possible from different individuals. In view of this and the fact that a given pupil did not collect more than from three to five letters, it is improbable that enough letters were written by any one person to bias the final word list.

## SUMMARY OF METHOD EMPLOYED

Thirty-seven hundred and twenty-three letters were collected and analyzed by the public-school children of 22 towns and cities in the state of Iowa, according to printed directions sent to teachers and pupils. The letters were written by adults engaged in more than 35 different occupations and callings throughout the state. These letters were classified into general and special groups and word lists were made of the vocabularies. Every word of different spelling was counted a different word, except where the word was pluralized by adding " $s$ " only. Such words were recorded as singular. All proper nouns, excepting days of weeks, names of months, holidays, and nationalities were excluded.

## FINDINGS

A total of 9223 different words were found in 361,184 running words. The first 14 words with their repetitions were found to constitute one-fourth of the total number of running words tabulated. Seventy-seven words with their repetitions comprised one-half of the total number of running words, and 442 words comprised three-fourths of the total number.

## SELECTION OF WORDS FOR A FINAL LIST

The final list of words was made up as follows: All words that occurred in three or more of the six groups shown in the summary table number X , page 22, with a total frequency of five or more were included in the list. By this method of selection 3087 words were obtained. This means that all words occurring with a frequency of one in 116 running words were selected, or about 862 words per 100,000 running words. These words, arranged in descending order of their frequency of occurrence, are given on pages 30 to 47 , inclusive.

## CHAPTER III

THE WORD LIST

| and | 118936 | would | 11016 | order | 5736 |
| :---: | :---: | :---: | :---: | :---: | :---: |
| the | 108786 | about | 10796 | glad | 5686 |
| to | 99656 | day | 1057 6 | want | 5586 |
| you | 80906 | know | 10436 | over | 5556 |
| -of | 73396 | there | 10326 | new | 555 S |
| in | 65336 | they | 9986 | city | 5556 |
| your | 52696 | now | 9986 | sir | 5426 |
| for | 51226 | an | 9566 | after | 5416 |
| we | 47056 | out | 9546 | could | 5276 |
| is | 46506 | truly | 9506 | hear | 5266 |
| that | 46226 | some | 9476 | made | 5236 |
| it | 42146 | here | $937{ }^{6}$ | his | $514{ }^{6}$ |
| have | 39966 | just | 9116 | same | 5136 |
| are | 38856 | year | 8686 | only | 5066 |
| will | 34866 | come | 8606 | then | 5046 |
| be | 34066 | well | 8506 | please | 5016 |
| as | 30326 | up | 8496 | should | 4956 |
| this | 25746 | when | 8016 | friend | 4816 |
| if | 25216 | make | 7926 | little | 4786 |
| on | 25156 | them | 7716 | take | 4736 |
| at | 24776 | she | 7596 | say | 4726 |
| all | 2269 S | see | 7486 | two | 4726 |
| not | 20506 | much | 7346 | soon | 467 6 |
| but | 19676 | don't | 7146 | Mr. | 4596 |
| -with | 19586 | like | 7146 | let | 4596 |
| dear | 18746 | how | 7016 | find | 4596 |
| am | 18286 | more | 7006 | these | 4556 |
| very | 17706 | her | 6776 | again | 4526 |
| from | 17826 | week | 6775 | best | 4506 |
| - so | 16426 | what | 6756 | better | 4466 |
| me | 16056 | school | 6676 | down | 4376 |
| which | 15826 | no | 6606 | many | 4376 |
| one | 15386 | may | 6586 | their | 4336 |
| was | 15106 | last | 6536 | first | 4216 |
| - can | 14906 | also | 6476 | car | 4206 |
| had | 14456 | write | 6306 | wish | 4176 |
| been | 14046 | going | 6296 | next | 4166 |
| our | 13956 | send | 1296 | back | 4136 |
| time | 13796 | go | 6276 | name | 3996 |
| good | 13716 | home | 6206 | must | 3976 |
| get | 13246 | think | 619 ถ | than | 3926 |
| has | 13116 | give | 6086 | state | 3896 |
| do | 13096 | every | 6076 | who | 3846 |
| my | 12736 | were | 6075 | few | 3846 |
| or | 12356 | work | 6016 | too | 3826 |
| he | 12286 | other | 6016 | company | 3786 |
| any | 12156 | got | 598 ¢ | card - | 3646 |
| letter | 11736 | before | 5956 | night | 3626 |
| us | 11676 | him | 5956 | thing | 3586 |
| by | 11536 | did | - 5756 | matter | 3586 |



| December | 161 | 6 water | 135 | either | 1136 |
| :---: | :---: | :---: | :---: | :---: | :---: |
| college |  | 6 gave | 135 | saw | 1126 |
| afternoon |  | 6 advise | 134 | rest | 1126 |
| folk |  | 6 sick | 134 | really | 1126 |
| far |  | b sorry | 1336 | express | 112 |
| cost |  | 6 end | 1336 | aunt | 1116 |
| around |  | 6 agent | 1315 | away | 111 |
| gone |  | 6 church | 1316 | gentlemen | 111 |
| November | 157 | 6 trust | 1304 | June | 1116 |
| charge | 157 | 6 stay | 130 | satisfactory | 111 |
| address | 157 | 6 further | 1306 | spring | 1116 |
| ready | 156 | 6 general | 1295 | whether | 1106 |
| corn | 155 | 6 fall | 129 | payment | 1104 |
| -suppose | 154 | 6 summer | 1296 | April | 1105 |
| -set | 154 | 6 past | 1286 | even | 1106 |
| cent | 154 | 6 winter | 1296 | against | 1096 |
| found | 154 | 6 family | 1286 | called | 1096 |
| above | 154 | 6 something | 1276 | run | 1096 |
| bill | 153 | 6 material | 1275 | though | 1086 |
| still | 152 | 6 game | 1276 | short | 1086 |
| meet | 152 | 6 Mrs. | 1276 | happy | 1086 |
| change | 152 | 6 bed | 1256 | six | 1076 |
| necessary | 152 | 5 board | 1256 | used | 1076 |
| hold | 151 | 6 party | 125 G | written | 1076 |
| however | 151 | 6 request | 1244 | statement | 1064 |
| Saturday |  | 6 children | 1246 | live | 1066 |
| buy | 150 | 6 road | 1246 | life | 1066 |
| train |  | 6 bring | 1246 | mind | 1066 |
| near |  | 6 anyone | 1235 | isn't | 1065 |
| writing | 149 | 6 small | 1236 | October | 1066 |
| stock | 148 | 6 county | 1235 | association | 1066 |
| application | 147 | - won't | 122 ถิ | already | 1056 |
| Monday | 146 | interested | 1225 | perhaps | 1056 |
| real | 146 | baby | 122 © | anxious | 1056 |
| sample | 146 | leave | 1216 | credit | 1055 |
| season | 146 | desire | 1205 | dinner | 1056 |
| enclosing | 145 | learn | 1205 | father | 1046 |
| told | 144 | box | 1206 | machine | 1046 |
| chance | 144 | 6 nearly | 1196 | acre | 1035 |
| half | 144 | 6 record | 1194 | alone | 1036 |
| information | 143 | 5 yourself | 1176 | building | 1036 |
| news | 143 | wishes | 1176 | light | 1036 |
| customer | 142 | wanted | 1176 | talk | 1036 |
| enclose | 142 | asked | 1176 | value | 1025 |
| Sunday | 142 | member | 1176 | committee | 1026 |
| sell | 141 | insurance | 1175 | forward | 1026 |
| fair | 141 | sold | 1165 | looking | 1016 |
| brother | 141 | wrote | 1156 | everything | 1016 |
| blank | 140 | trouble | 1156 | term | 1016 |
| plan. | 139 | 6 took | 1156 | awful | 996 |
| why | 139 | 6 together | 1156 | future | 996 |
| nothing | 139 | pleasure | 1156 | else | 996 |
| shipment | 139 | several | 1156 | visit | 996 |
| Friday | 138 | doctor | 1156 | west | 996 |
| July | 138 | expense | 1156 | started | 996 |
| read | 138 | taken | 1146 | subject | 996 |
| special | 138 | cover | 1146 | ten | 984 |
| I'm | 137 | sister | 1146 | notice | 986 |
| respectfully | 136 | balance | 1136 | feeling | 986 |


| different | 986 | reference | 846 | taking | 746 |
| :---: | :---: | :---: | :---: | :---: | :---: |
| delivery | 984 | cut | 846 | student | 735 |
| fill | 976 | coat | 846 | sign | 736 |
| job | 975 | free | 846 | Feb. | 736 |
| seen | 976 | fire | 846 | experience | 735 |
| supply | 974 | bought- | 846 | cash | 735 |
| therefore | 964 | open | 836 | careful | 736 |
| trusting | 964 | play | 836 | attend | 735 |
| I'll | 966 | profit | 836 | net | 726 |
| - doubt | 965 | program | 836 | post | 725 |
| question | 956 | handle - | 835 | freight | 725 |
| - extra | 956 | loan | 833 | hour | 725 |
| opportunity | 955 | delay | 836 | decided | 726 |
| enjoy | 956 | white | 836 | suggest | 715 |
| regular | 946 | word | 834 | shipped | 715 |
| - advantage | 946 | regarding | 826 | examination | 715 |
| following | 936 | dealer | 824 | hotel | 715 |
| president | 936 | prompt | 824 | follow | 716 |
| least | 936 | advance. | 815 | personal | 715 |
| success | 936 | policy | 814 | older | 716 |
| remember | 926 | kept | 816 | although | 71 |
| - fellow | 925 | usual | 816 | accept | 706 |
| farmer | 926 | whom | 816 | beginning | 706 |
| manager | 923 | mortgage | 804 | benefit | 705 |
| mamma | 926 | working | 806 | probably | 706 |
| later | 926 | tomorrow | 805 | yard | 705 |
| , beg | 915 | effort | 806 | pleasant | 706 |
| position | 916 | law | 806 | held | 706 |
| fur | 915 | form | 806 | error | 705 |
| late | 916 | lost | 796 | hot | 705 |
| till | 916 | district | 795 | circular | 704 |
| young | 916 | election | 794 | copy. | 703 |
| subscription | 915 | Thursday | 796 | cousin | 706 |
| rate | 916 | understand | 796 | register | 705 |
| reason | 915 | secure | 795 | Tuesday |  |
| section | 914 | size | 796 | couple |  |
| street | 915 | September | 784 | low |  |
| August | 896 | begin | 775 | idea. | 696 |
| second | 896 | known | 776 | page | 694 |
| hundred | 896 | minute | 775 | May | 696 |
| worth | 885 | catalog | 773 | auto | 696 |
| result | 885 | trade | 775 | article | 696 |
| hardly | 886 | selling | 775 | beside | 685 |
| between | 87 6 | except | 766 | miss | 686 |
| less | 876 | forget | 766 | north | 686 |
| milk | 875 | among | 766 | saving | 676 |
| certificate | 874 | promptly | 765 | drop | 676 |
| rain | 876 | property | 766 | consider | 674 |
| contract | 864 | o'clock | 756 | mailed | 675 |
| furnish | 865 | issue | 755 | fully | 676 |
| direct | 854 | commission | 754 | public |  |
| proposition | 855 | couldn't | 756 | answering |  |
| national | 854 | trip | 756 | Miss | 674 |
| mlyself | 856 | side | 756 | add | 666 |
| start | 855 | coal | 756 | afraid | 665 |
| especially | 855 | knew | 746 | all right | 666 |
| fee | 854 | March | 746 | point | 666 |
| unless | 856 | demand | 745 | head | 666 |
| wait | 846 | snow | 746 | draft | 66 |


| excuse | 665 | arrange | 585 | count | 535 |
| :---: | :---: | :---: | :---: | :---: | :---: |
| tonight | 665 | quality | 585 | pair | 535 |
| tree | 666 | finished | 586 | neighbor | 536 |
| sooner | 666 | item | 583 | birthday | 536 |
| stand | 666 | local | 585 | below | 53 |
| south | 654 | longer | 586 | agriculture | 535 |
| reach | 656 | complete | 585 | abstract | 524 |
| contest | 655 | dress | 586 | oblige | 525 |
| horse | 65 c | eight | 586 | fun | 526 |
| gift | 655 | trying | 586 | heavy | 52 |
| brought | 656 | world | 586 | married | 526 |
| automobile | 654 | recently | 585 | cause | 525 |
| organization | 644 | serve | 585 | correct | 52 ¢ |
| ought | 646 | study | 585 | doesn't | 526 |
| ball | 646 | teaching | 575 | replying | 524 |
| uncle | 646 | superintendent | 574 | stop | 526 |
| store - | 646 | suit | 575 | successful | 52 |
| teach | 634 | welcome | 575 | style | 515 |
| rent | 636 | twenty | 575 | within | 514 |
| realize | 636 | entire | 575 | everybody | 51 |
| war | 636 | continue | 575 | direction | 51 |
| chicken | 636 | kid | 576 | dandy | 51 |
| finish | 636 | hog | 576 | changed | 51 |
| piece | 636 | particular | 575 | magazine | 51 |
| owner | 634 | paint | 574 | lovely | 51 |
| ordered | 634 | campaign | 563 | instruction | 51 |
| mine | 636 | met | 566 | instead | 51 |
| asking | 635 | person | 566 | impossible | 515 |
| cashier | 625 | considerable | 565 | gold | 515 |
| judge - | 625 | covering | 565 | quarter | 516 |
| certain | 626 | fell | 566 | prize | 51 |
| clear | 625 | figure | 565 | paying | 51 |
| factory | 625 | whole | 566 | package | 51 |
| vacation | 625 | women | 555 | Nov. | 514 |
| returned | 616 | waiting | 556 | move | 51 |
| willing | 614 | unable | 555 | color | 51 |
| entirely | 616 | ship | 554 | black | 51 |
| health | 616 | secretary | 556 | noon | 50 |
| purpose | 614 | thousand | 556 | block | 50 |
| Oct. | 616 | clean | 556 | lonesome | 50 |
| blue | 606 | lose | 555 | allow | 50 |
| carry | 606 | pupil | 555 | decide | 506 |
| immediately | 604 | carefully | 556 | walk | 50 |
| important | 606 | agency | 554 | test | 50 |
| easy | 606 | age | 556 | third | 505 |
| manufacture | 604 | anyway | 546 | aid | 495 |
| eat | 605 | bit | 546 | pass | 496 |
| excellent | 604 | plate | 544 | placed | 494 |
| sale | 605 | frm | 545 | possibly | 494 |
| sometime | 606 | hello | 546 | prepared | 495 |
| yes | 596 | Jan. | 546 | quit | 496 |
| university | 596 | file | 544 | quote | 493 |
| death | 596 | envelope | 546 | join | 496 |
| copies | 595 | exchange | 544 | madam | 496 |
| plant | 594 | recent | 544 | democrat | 493 |
| music | 595 | signed | 535 | description | 495 |
| awaiting | 594 | reading | 536 | difference | 496 |
| annual | 594 | wonder | 536 | effect | 495 |
| according | 595 | Wednesday | - 536 | fifteen | 494 |


| tired | 496 | felt | 456 | gallon | 416 |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| poor | 496 | turn | 456 | handling | 413 |  |
| using | 495 | view | 456 | history | 414 |  |
| stayed | 496 | win | 454 | I've | 415 |  |
| thinking | 486 | red | 455 | extend | 414 |  |
| table | 484 | repair | 454 | union | 414 |  |
| support | 485 | satisfied | 455 | whatever | 415 |  |
| suitable | 484 | sheet | 455 | refer | 413 |  |
| wear | 486 | speak | 456 | satisfaction | 415 |  |
| field | 486 | splendid | 455 | saying | 415 |  |
| fat | 486 | thirty | 445 | scout | 414 |  |
| eye | 486 | seven | 446 | surprise | 415 |  |
| education | 484 | watch | 446 | system | 414 |  |
| Dr. | 486 | volume | 445 | silk | 405 |  |
| discount | 486 | top | 446 | expected | 405 |  |
| daily | 485 | Dec. | 446 | shipping | 404 |  |
| concerning | 484 | co-operation | 444 | February | 405 |  |
| increased | 486 | chairman | 445 | various | 405 |  |
| greatly | 484 | instant | 443 | client | 403 |  |
| permit | 485 | increase | 446 | mistake | 406 |  |
| oil | 486 | grandma | 445 | largest | 405 |  |
| -buying | 485 | prove | 445 | addition | 404 |  |
| adyertising | 474 | plenty | 445 | inquiry | 405 |  |
| began | 476 | art | 445 | graduate | 405 |  |
| body | 476 | acknowledge | 435 | properly |  | $\geq a$ |
| premium | 474 | act | 434 | prepare | 405 |  |
| promise | 476 | bear | 435 | pound | 405 |  |
| improvement | 475 | prospect | 435 | added | 404 |  |
| lesson | 475 | force | 434 | confidence |  |  |
| cattle | 475 | imagine | 436 | duty | 395 |  |
| convenience | 474 | library | 435 | earliest | 394 |  |
| director | 474 | consideration | 435 | arrangement | 395 |  |
| require | 464 | cordially | 435 | average | 395 |  |
| representative | 465 | crop | 434 | basis | 394 |  |
| remittance | 464 | east | 436 | registration | 394 |  |
| Xmas | 46 | feet | 436 | remit | 395 |  |
| warm | 466 | vote | 435 | requested | 395 |  |
| tire | 465 | wonderful | 435 | perfectly | 395 |  |
| enjoyed | 465 | speaker | 436 | proceed | 394 |  |
| died | 465 | territory | 434 | quick | 396 |  |
| mighty | 465 | spend | 426 | lecture | 396 |  |
| looked | 466 | separate | 425 | maybe | 394 |  |
| living | 466 | shown | 423 | nicely | 396 |  |
| happen | 469 | rule | 425 | obligation | 395 |  |
| opinion | 464 | window | 425 | wasn't | 396 |  |
| beat | 466 | easily | 425 | wife |  |  |
| absolutely | 454 | choice | 424 | ladies | 395 |  |
| advanced | 455 | method | 423 | fix | 396 |  |
| arrived | 456 | manner | 424 | fourth | 396 |  |
| none | 455 | lately | 426 | gas | 396 |  |
| offered | 454 | institution | 424 | gentleman | 396 |  |
| period | 454 | presence | 424 | grand | 395 |  |
| purchase | 454 | ourselves | 425 | patient | 385 |  |
| highest | 454 | Oh | 425 | practice | 386 |  |
| lovingly | 436 | collection | 424 | acquainted | 386 |  |
| character | 454 | arm | 425 | additional | 384 |  |
| child | 456 | apple | 416 | build | 385 |  |
| deed | 454 | power | 414 | council | 384 |  |
| face | 456 | principal | 415 | holiday | 385 |  |


| - entitled | 384 | says | 355 | attorney | 33 |
| :---: | :---: | :---: | :---: | :---: | :---: |
| filled | 384 | shape | 356 | become | 33 |
| habit | 384 | stamp | 356 | bulletin | 33 |
| -spent |  | planning | 356 | twice | 33 |
| meal |  | wheat | 355 | wished | 33 |
| moment | 385 | proper | 355 | valued | 32 |
| papa | 385 | convenient | 354 | trial | 32 |
| operation | 375 | dead | 355 | bet | 32 |
| agree | 374 | enter | 354 | literature | 32 |
| ahead | 376 | eve | 35 | mark | 32 |
| assure | 375 | explain | 355 | missed | 32 |
| awfully | 375 | fail | 355 | model | 32 |
| buyer | 373 | favorable | 356 | officer | 32 |
| capital | 374 | equipped | 345 | raise | 32 |
| ride | 375 | fifty | 346 | recommend | 32 |
| son |  | forty | 346 | safe | 32 |
| standard |  | growing | 346 | simply | 32 |
| supper | 376 | vary |  | slip | 32 |
| personally | 374 | nurse |  | slow | 32 |
| pick |  | whose |  | storm | 32 |
| equipment |  | owe |  | sufficient | 32 |
| fight |  | wishing |  | plain | 32 |
| fit | 376 | parties |  | product | 32 |
| grain | 374 | postal | 346 | purchased | 32 |
| hospital | 374 | prefer |  | etc. | 32 |
| immediate | 374 | action | 343 | extension | 32 |
| lady | 376 | appreciated | 345 | front | 32 |
| connection | 374 | clerk | 343 | furnished | 32 |
| cow | 375 | deposit | 344 | hadn't | 32 |
| curtain | 376 | dozen | 344 | catch | 32 |
| detail | 375 | drive | 346 | clothe | 32 |
| egg | 376 | efficient | 343 | continued | 32 |
| ticket | 373 | railroad | 345 | length | 31 |
| wouldn't | 365 | regret | 345 | mentioned | 31 |
| title | 365 | share | 346 | obtain | 31 |
| collect | 365 | seemed | 345 | central | 31 |
| delivered | 365 | surprised | 346 | cheap | 31 |
| depend | 366 | thanksgiving |  | community | 31 |
| efficiency | 363 | higher |  | duplicate | 31 |
| include | 363 | judgment |  | garage | 31 |
| invoice | 365 | hurry | 336 | hair | 31 |
| knowledge | 365 | classes | 335 | parcel | 31 |
| farming | 365 | commercial | 336 | perfect | 31 |
| forgot | 365 | common | 334 | prevent | 31 |
| forgotten | 366 | cream | 335 | prior | 31 |
| printèd | 364 | definite | 334 | Prof. | 31 |
| proof | 365 | denot | 336 | running | 31 |
| quiet | 366 | enjoying | 336 | selection | 31 |
| rained | 366 | fairly | 336 | true | 31 |
| supplies | 364 | flower | 336 | assuring | 31 |
| accordance | 363 | foot | 336 | useful | 31 |
| across | 365 | putting | 335 | answered | 31 |
| advice | 365 | reached | 335 | circumstances | 31 |
| branch | 365 | latter | 336 | assist | 31 |
| loss | 365 | liked | 335 | banking | 31 |
| lumber | 365 | luck | 336 | fund | 30 |
| mailing | 364 | moved | 336 | gain | 30 |
| load | 354 | nature | 334 | ha | 30 |
| nine | 355 | arrive | 335 | leader | 30 |


| notify | 304 | hate | 28 |  | lay | 27 |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| occasion | 305 | improved | 28 |  | leaving |  |  |
| official | 305 | issued | 28 | 3 | liberal | 27 | 4 |
| original | 304 | latest | 28 | 4 | ma |  | 4 |
| - otherwise | 305 | located | 23 | 5 | middle |  | 4 |
| addressed | 305 | mention | 28 | 5 | oats | 27 | 4 |
| anywhere | 305 | normal | 28 | 4 | informed | 27 | 3 |
| - appear | 304 | offering | 28 | 3 | invitation | 27 | 5 |
| available | 303 | fast | 28 | 4 | kitchen | 27 | 5 |
| band | 306 | weight | 28 | 5 | lake | 27 | 5 |
| -twelve | 305 | financial | 28 | 3 | active | 27 | 5 |
| waist | 305 | piano | 28 | 5 | barn | 27 | 6 |
| wire | 303 | practical | 28 | 5 | basket | 27 | 4 |
| profession | 306 | private | 28 | 5 | booklet | 27 | 4 |
| cedar | 303 | cook | 28 | 6 | range | 26 | 4 |
| crowd | 305 | problem | 28 | 4 | referring | 26 | 3 |
| closed | 304 | cool | 28 | 5 | relative | 26 | 5 |
| hay | 305 | butter | 28 | 6 | represented | 26 | 3 |
| himself | 304 | correspondence | 28 | 4 | required | 26 | 3 |
| interesting | 305 | reasonable | 28 | 3 | returning | 26 | 4 |
| journal | 306 | court |  | 4 | rich | 26 | 5 |
| republican | 304 | referred | 28 | 3 | select | 26 | 4 |
| sand | 304 | registered | 28 | 3 | self | 26 | 6 |
| sleep | 305 | danger | 28 | 5 | single | 26 | 6 |
| sort | 304 | sanitary |  | 3 | situation | 26 | 5 |
| cleaned | 296 | promised | 28 | 6 | advised | 26 | 3 |
| covered | 294 | saver | 23 | 3 | aim | 26 | 5 |
| dark | 295 | shoe | 28 | 6 | air | 26 | 4 |
| desired | 29.4 | semester | 28 | 4 | allowed | 26 | 4 |
| develop | 294 | sound |  | 5 | appeal | 26 | 5 |
| receiving | 294 | treatment |  | 5 | army | 26 | 3 |
| securing | 293 | usually | 28 | ${ }^{\circ}$ | bluff | 26 | 4 |
| sit | 296 | talking |  | 5 | hurt | 26 | 6 |
| hill | 294 | terrible | 27 | 5 | importance | 26 | 4 |
| -inst. | 293 | thus | 27 | 5 | inches | 26 | 6 |
| itself | 295 | total | 27 | 4 | keeping | 26 | 6 |
| labor | 294 | touch |  | 5 | liberty | 26 | 5 |
| larger | 295 | wagon | 27 | 5 | lower | 26 | 5 |
| brown | 295 | wash |  | 6 | lunch |  | 4 |
| presume | 294 | we'll |  | 6 | former | 26 | 4 |
| provide | 293 | passed |  | 5 | grove - | 26 | 5 |
| yearly | 293 | pattern | 27 | 4 | bunch | 26 | 6 |
| exercised | 29 矣 | calling | 27 | 4 | candidate | 26 | 5 |
| failed | 293 | carrier | 27 | 3 | carried | 26 | 5 |
| fear | 296 | reader |  | 3 | outside | 26 | 4 |
| forwarded | 294 | round | 27 | 4 | phone | 26 | 5 |
| ground | 296 | rush | 27 | 5 | preparation | 26 | 5 |
| - opening | 293 | settle | 27 | 5 | publication | 26 | 5 |
| ability | 294 | English | 27 | 5 | sixty | 26 | 4 |
| amounting | 293 | feed | 27 | 5 | skirt | 26 | 5 |
| badly | 296 | floor | 27 | 6 | understanding | 26 | 4 |
| square | 295 | football | 27 | 6 | wind | 26 | 5 |
| - submit | 295 | funny | 27 | 6 | wondering | 26 | 5 |
| thoroughly | 294 | gladly |  | 4 | chair | 26 | 5 |
| ton - | 295 | guaranteed - | 27 | 4 | chautauqua | 26 | 4 |
| wet | 295 | content | 27 | 5 | cloth | 26 |  |
| behind | 285 | charged |  | 3 | comndunication | 26 |  |
| worked | 285 | contain |  | 4 | concern | 26 | 4 |
| hat | $\pm 36$ | design | 27 |  | daughter | 26 |  |


| center | 25 | holding | 24 |  | appointed | 224 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| cross | 25 | I'd | 24 | 6 | assigned | 223 |
| degree |  | indicate | 24 | 3 | a while | 226 |
| difficulty |  | intended | 24 | 5 | became | 224 |
| exception | 25 | iron | 24 | 5 | circulation | 223 |
| expensive |  | crazy | 24 | 6 | choose | 22 |
| film |  | distribution | 24 | 3 | coach | 22 |
| greeting |  | checking | 23 | 3 | conference | 22 |
| pig |  | cities | 23 | 3 | dealing | 224 |
| bother |  | considered | 23 | 5 | dog | 225 |
| bottom |  | convention | 23 | 3 | including | 22 |
| breakfast |  | cutting | 23 | 5 | increasing | 22 |
| bushel |  | inclosed - | 23 | 5 | kindness | 22 |
| river | 25 | intend | 23 | 4 | learned | 224 |
| affair | 25 | limited | 23 | 4 | locate | 22 |
| bog - | 25 | merchandise | 23 | 4 | washing | 22 |
| banker | 25 | nation | 23 | 6 | measure | 225 |
| blow | 25 | needed | 23 | 5 | merit | 223 |
| co-operative - | 25 | newspaper | 23 | 5 | neglected | 225 |
| joy | 25 | obliged | 23 | $\overline{5}$ | broke | 225 |
| lieutenant | 25 | bureau | 23 | 4 | training | 223 |
| mill | 25 | calf | 23 | 4 | painting | 225 |
| million | 25 | pen | 23 | 5 | relation | 225 |
| monthly | 25 | played | 23 | 5 | senior | 225 |
| movement | 25 | print | 23 | 5 | exact | 225 |
| stamped | 25 | publisher- | 23 | 4 | extent | 223 |
| stuff | 25 | published | 23 | 3 | glass | 22 |
| sun | 25 | somewhat | 23 | 6 | worse | 226 |
| united |  | sore | 23 | 6 | final | 215 |
| - wall |  | spare | 23 | 6 | fresh | 21 |
| woman |  | spell | 23 | 5 | handkerchief | 21 |
| stated |  | step. | 23 | 5 | garden | 21 |
| station |  | straight | 23 | 4 | reduction | 21 |
| merely |  | talked | 23 | 5 | regularly | 21 |
| mostly |  | telephone |  | 5 | requirement - | 21 |
| advertisement | 24 | urge | 23 | 3 | ring | 21 |
| air | 26 | worry | 23 | 5 | rose | 215 |
| advising | 24 | writer | 23 | 4 | seat | 21. |
| apply |  | you'd - | 23 | 3 | garment | 215 |
| rapid |  | reliable | 23 | 3 | shop | 21 |
| raw |  | represent | 23 | 3 | sight | 214 |
| respect | 24 | science | 23 | 4 | taxes | 21 |
| exactly |  | seed | 23 | 5 | wide | 215 |
| exhibit |  | Sept. | 23 | 6 | payable | 214 |
| feature |  | series | 23 | 3 | placing | 213 |
| fever |  | serious | 23 | 5 | previous | 215 |
| filling | 24 | settlement | 23 | 4 | produce | 21 |
| fixed * | 24 | foundation | 23 | 4 | provided | 21 |
| food | 24 | fraternally | 23 | 3 | quickly |  |
| furniture | 24 | furnace | 23 | 4 | cake | 215 |
| grateful | 24 | gotten | 23 | 5 | caused | 21 |
| green | 24 | guarantee | 23 | 4 | chain | 21 |
| prepaid | 24 | accident | 23 | 4 | circuit | 213 |
| boxes | 24 | approval | 23 |  | crochet | 215 |
| broken | 24 | aside | 23 | 5 | dance | 214 |
| built | 24 | barley - | 23 | 4 | deliver | 213 |
| cap | 24 | barrel | 23 | 5 | disease | 21.4 |
| hearing | 24 | behalf | 23 | 4 | domestic | 21.4 |
| holder - | 24 | accordingly | 22 |  | Latin - | 215 |


| longest | 214 | familiar | 204 | manual | 18 | 3 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| main | 214 | fortunate | 194 | librarian |  | 3 |
| membership | 215 | gasoline | 194 | manage |  | 4 |
| neither | 215 | good-bye | 195 | lodge |  | 5 |
| handy | 215 | grippe | 193 | limit |  | 6 |
| happened | 215 | Sat. - | 194 | democratic |  | 4 -* |
| helped | 215 | scrap | 194 | consist |  | 3 |
| inside | 216 | sew | 193 | considerably | 18 | 3 |
| investment | 213 | similar | 193 | collar | 18 | 5 |
| invited | 216 | simple | 19.4 | pull | 18 | 5 |
| bell | 214 | subscriber | 195 | press | 18 | 4 |
| combination | 21. | sumi | 194 | throughout | 18 | 4 |
| comfort | 215 | taught | 194 | text |  | 3 |
| dearest | 215 | track | 194 | sweet |  | 5 |
| comfortable | 205 | tried | 19 ¢ | stove |  | 5 |
| afloat | 203 | yellow | 195 | stopped |  | 4 |
| alfalfa | 204 | pocket | 195 | stood |  | 5 |
| assistance | 203 | proud | 195 | starting |  | 6 |
| bean | 205 | Christian | 194 | schedule |  | 5 |
| blood | 205 | cleaning | 195 | sack |  | 3 |
| bottle | 205 | confident | 193 | rug | 18 | 6 |
| button | 205 | directly | 194 | route |  | 6 |
| - hasn't | 205 | drill | 195 | roll | 18 | 5 |
| -ideal | 204 | drug | 195 | safety | 18 | 5 |
| ill | 205 | lives | 195 | rock |  | 4 |
| kindest | 204 | loving | 193 | responsse | 18 | 4 |
| location | 204 | mad | 196 | handsome | 18 | 4 |
| maintain | 204 | merry | 195 | greatest | 18 | 4 |
| message | 205 | mountain | 19 先 | flour | 18 | 5 |
| moral | 204 | nor | 194 | fifth | 18 | 5 |
| natural | 204 | helpful | 195 | fault | 18 | 4 |
| niece | 204 | ice | 195 | liable | 17 | 4 |
| corner | 205 | installed | 195 | lowest | 17 | 3 |
| disappointed | 203 | investigation | 193 | match |  | 4 |
| park | 204 | actual | 193 | meant | 17 | 6 |
| pie | 205 | appreciation | 193 | noticed |  | 4 |
| potatoes | 205 | arranged | 194 | opened | 17 | 4 |
| powder | 205 | arrival | 194 | operating | 17 | 4 |
| space | 206 | assistant | 194 | headquarter | 17 | 4 |
| spirit | 204 | attending | 194 | independent |  | 4 |
| studies | 205 | bigger | 196 | indeed |  | 4 |
| telling | 205 | blame | 196 | insist | 17 | 4 |
| visiting | 205 | born | 195 | inspect | 17 | 3 |
| voter ${ }^{\text {a }}$ | 203 | break | 196 | laid | 17 | 5 |
| weak | 205 | bright | 194 | team | 17 | 5 |
| western | 205 | adopted | 183 | wanting | 17 | 4 |
| won | 205 | animal | 186 | weekly | 17 | 4 |
| readily | 203 | ans. | 18.3 | wheel | 17 |  |
| regulation | 203 | assured | 184 | patron | 17 | 5 |
| renewal | 204 | avenue | 184 | peace | 17 | 4 |
| salary | 205 | colored | 185 | picnic | 17 | 5 |
| salesman | 204 | instance | 183 | primary | 17 | 4 |
| scare ${ }^{-}$ | 206 | ink | 185 | queer | 17 | 4 |
| favored | 204 | homesick | 186 | clock | 17 | 5 |
| finally | 205 | pa | 184 | closely | 17 | 5 |
| flat | 206 | ordinary | 184 | contplaint | 17 |  |
| greater | 204 | naturally | 185 | cough | 17 | - |
| hall | 206 | modern | 184 | delightful | 17 | 4 |
| you'll | 205 | meantime | 184 | difficult | 17 | 5 |


| division | 174 | coupon | 164 | cotton | 153 |
| :---: | :---: | :---: | :---: | :---: | :---: |
| drum | 173 | delayed | 164 | leaves | 15 |
| earth | 175 | delighted | 165 | lived | 15 |
| edge | 174 | die | 165 | loose | 15 |
| acceptance | 173 | display | 163 | manufacturing | 15 |
| actually | 175 | dust | 164 | medicine | 15 |
| advertise | 175 | elected | 164 | nut | 15 |
| appeared | 175 | conversation | 163 | bridge | 153 |
| assume | 174 | doubtless | 163 | brush | 153 |
| bargain | 173 | pardon | 166 | butcher | 15 |
| belong | 175 | postage | 165 | capable | 15 |
| cast | 175 | pure | 164 | cared | 15 |
| responsible | 174 | quantities | 163 | physical | 15 |
| scientific - | 173 | enthusiastic | 164 | pin | 15 |
| slide | 175 | entry | 164 | pride | 15 |
| society | 174 | evidence | 163 | profitable | 15 |
| sport | 175 | expression | 165 | quoted | 15 |
| strength | 175 | finding | 165 | playing | 15 |
| entertainment | 176 | finest | 165 | entered | 15 |
| everyone | 175 | forgive | 165 | example | 15 |
| examine | 174 | gather | 165 | executive | 15 |
| expert | 174 | generally | 163 | fortune | 15 |
| fancy | 174 | glove | 165 | forth | 15 |
| filed | 174 | grass | 166 | furnishing | 15 |
| forced | 174 | thereafter | 163 | grip | 15 |
| handed | 175 | thorough | 165 | grown | 15 |
| expecting | 175 | throat | 166 | remind | 15 |
| rec'd - | 165 | tickled | 164 | rented | 15 |
| recommendation | 163 | understood | 164 | riding | 15 |
| sad | 164 | unpaid | 163 | sickness | 15 |
| sat | 165 | vicinity | 165 | shade | 15 |
| secured | 164 | washed | 165 | seventh | 15 |
| settled | 164 | welfare | 163 | social | 15 |
| snowed | 165 | wholesale | 164 | stationary | 15 |
| spoke | 164 | wild | 165 | steady | 15 |
| strictly | 165 | wreng | 165 | stomach | 15 |
| supplied | 164 | zone | 163 | stone | 15 |
| taste | 164 | heir | 155 | submitted | 15 |
| approved | 163 | herself | 154 | sympathy | 15 |
| ashamed | 163 | husband | 154 | likely | 144 |
| attached | 163 | inasmuch | 153 | majority | 144 |
| attendance | 163 | inclose | 156 | mouth | 143 |
| based | 163 | individual | 153 | mud | 145 |
| helping | 164 | intention | 154 | noise | 144 |
| hole - | 165 | language | 154 | obtained | 144 |
| honor | 165 | jump | 155 | acquaintance | 144 |
| improve | 165 | king | 15.5 | adjusted | 144 |
| inform | 16 ¢ | adjustment | 153 | alumni | 14 3 |
| listed | 163 | administration | 153 | annually | 143 |
| lone | 163 | advertised | 153 | anybody | 145 |
| lie | 166 | analysis | 153 | assignment | 14 |
| machinery | 164 | argument | 154 | ate | 143 |
| moving | 166 | assessment | 153 | auditor | 143 |
| object | 164 | bake | 154 | ballot | 143 |
| outfit | 163 | type | 153 | studying | 145 |
| citizen | 165 | waste | 153 | stick | 14 |
| coast | 163 | whenever | 155 | thread | 14 |
| coffee | 164 | wise | 155 | township | 143 |
| containing | 165 | convince | 153 | visited | 143 |


| zero | 143 | hers | 13 | lead | 13 |
| :---: | :---: | :---: | :---: | :---: | :---: |
| exceptionally | -144 | human | 13 | spread | 13 |
| explained | 144 | industry |  | rabbit | 13 |
| explanation | 14 | inferior - |  | raining | 13 |
| extended | 141 | instructor |  | rainy | 13 |
| farther | 146 | joined |  | raised | 13 |
| fashion | 144 | kisses | 13 | reception | 13 |
| federation | 143 | landing - | 13 | regretting | 13 |
| figured | 144 | addresses | 13 | reputation | 13 |
| ford - | 144 | affidavit | 13 | reserve | 13 |
| fort - | 143 | announcement | 13 | retain | 13 |
| gate | 144 | appointment | 13 | rough | 13 |
| gee | 143 | attended | 13 | satisfy | 13 |
| guest | 144 | Aug. | 13 | shipper - | 13 |
| race | 144 | base | 13 | server | 13 |
| rapidly | 143 | beauty | 13 | signature | 13 |
| reaches | 145 | bee | 13 | soil | 13 |
| -reduced | 144 | pencil | 13 | someone | 13 |
| render | 143 | postcard - | 13 | credited | 13 |
| retail | 144 | principle | 135 | valuable | 13 |
| sewing | 144 | providing | 133 | unnecessary | 13 |
| sense | 144 | quantity | 13 | absence | 12 |
| caught | 145 | engineering | 13 | accomplish | 12 |
| correspondent | 144 | essential | 133 | actor | 12 |
| cute | 145 | established | 13 | afterward | 12 |
| deep |  | exceptional | 13 | announ'ce | 12 |
| bid | 14 | failure | 13 | applicant | 12 |
| biggest | 144 | favorably | 13 | athletics | 12 |
| commence | 143 | folder | 135 | author | 12 |
| commerce | 143 | gray | 136 | automatic | 12 |
| booth | 143 | group | 133 | cheaper | 12 |
| capacity | 143 | happiness | 13 | chief | 12 |
| carrying | 144 | chapter | 133 | companies | 12 |
| penny | 14.4 | cigar | 13 | completely | 12 |
| pole | 144 | closing | 13 | compliment | 12 |
| possession | 144 | connect | 134 | consequently | 12 |
| possibility | 143 | construction | 13 | crocheting - | 12 |
| practically | 143 | control | 133 | crowded | 12 |
| protest | 144 | cottage | 133 | cup | 12 |
| pump | 144 | cure | 134 | damage | 12 |
| honest | 144 | beyond | 135 | belt | 12 |
| influence | 14 | brief | 134 | bird | 12 |
| inquire | 145 | bugs - | 133 | blew | 12 |
| jobber | 143 | burden | 135 | boat | 12 |
| killed | 146 | calves | 134 | bracelet | 12 |
| lace | 144 | candidacy | 134 | bringing | 12 |
| largely | 144 | standing | 134 | burn | 12 |
| nervous | 146 | strike | 135 | cartoon | 12 |
| linen | 135 | surplus | 134 | parlor | 12 |
| named | 136 | tank | 133 | partly | 12 |
| neck | 135 | tax | 134 | patent | 12 |
| neighborhood | 134 | teeth | 134 | peach | 12 |
| orange | 133 | thin | 134 | pillow | 12 |
| orchestra | 134 | toward | 135 | pine | 12 |
| organize | 133 | transportation | 134 | plainly | 12 |
| organized | 133 | weigh | 135 | planned | 12 |
| owing | 133 | whereby | 135 | porch | 12 |
| heat | 134 | winner | 134 | positive | 123 |
| hence | 134 | X-ray | 134 | priced | 124 |


| printing | 124 | yoke | 113 | violin | 114 |
| :---: | :---: | :---: | :---: | :---: | :---: |
| professional | 125 | zephyr - | 114 | voice | 113 |
| progress | 123 | letting | 115 | wearing | 114 |
| inclosing - | 123 | lump. | 113 | ache | 105 |
| income | 124 | master | 115 | acted | 104 |
| institute | 123 | meat | 113 | adjust | 104 |
| international | 123 | mend | 115 | altogether | 105 |
| joke | 124 | northern | 113 | apparatus - | 10 |
| kill | 124 | oversight | 114 | aren't | 103 |
| knowing | 123 | opportunity | 114 | Ave.- | 103 |
| lonely | 124 | parent - | 114 | chart - | 103 |
| laugh | 124 | permanent | 114 | civics | 10 |
| leg | 125 | popular | 113 | cleaner | 10 |
| neat | 124 | preparing | 113 | clearly | 103 |
| necessity | 123 | production | 113 | coarse | 10 |
| neglect | 124 | passing | 113 | concluded | 103 |
| nerve | 124 | quart | 114 | conduct | 103 |
| nose | 125 | raising | 114 | considering | 104 |
| operated | 123 | remedy | 114 | correction | 103 |
| owned | 123 | remembered | 114 | correspond | 103 |
| pack | 124 | renew | 114 | current | 104 |
| packed | 125 | requesting | 113 | dairy | 10 |
| shopping | 124 | silver | 115 | dated | 103 |
| seeing | 123 | sink | 114 | debt | 105 |
| sincere | 124 | sixth | 11.4 | calm | 103 |
| stair | 124 | skating | 114 | attach | 103 |
| staying | 124 | slightly | 114 | attractive | 104 |
| stories | 123 | snowing . | 114 | bay | 104 |
| supposed | 124 | aware | 113 | begun | 104 |
| swell - | 125 | beef | 114 | believing | 103 |
| thankful | 124 | birth | 11 ถ | bench | 103 |
| themselves | 125 | bonus - | 113 | blizzard - | 103 |
| trunk | 125 | cabinet | 115 | boss | 103 |
| turned | 125 | cellar | 116 | ranch | 105 |
| wood | 125 | concert | 115 | recover | 104 |
| wool | 125 | confined | 114 | refund | 103 |
| workmanship - | 124 | constitution | 114 | rendered | 103 |
| worried | 123 | corporation | 113 | reported | 103 |
| worst | 126 | dad | 114 | shortly | 103 |
| exclusively - | 114 | dancing | 115 | shut | 104 |
| explaining | 114 | admission | 113 | sheep | 105 |
| fence | 114 | affectionately | 114 | selected | 103 |
| figuring | 115 | algebra | 115 | sitting | 104 |
| finger | 115 | ample | 114 | soft | 104 |
| fishing | 115 | appearance | 113 | solicit | 103 |
| frost | 115 | attempt | 114 | pastor | 104 |
| fruit | 113 | attraction | 113 | particularly | 103 |
| geography | 114 | await | 113 | patch - | 104 |
| growth | 114 | invite | 113 | phoned | 103 |
| handled | 113 | steel | 113 | picking - | 105 |
| haste | 115 | studied | 113 | plum | 104 |
| hesitate | 113 | succeed | 114 | polls - | 104 |
| honestly | 115 | suggested | 113 | poorly | 103 |
| hunt | 115 | supervisor - | 114 | proven | 104 |
| hunting | 115 | tatting - | 114 | qualities | 103 |
| illustrated | 114 | tie | 114 | learning | 104 |
| instructed | 113 | tile | 113 | management | 103 |
| justify | 114 | valley | 115 | mate | 104 |
| lamb | 113 | variety | 115 | mental | 104 |


| misses- | 105 | smooth | 94 | earnest | 93 |
| :---: | :---: | :---: | :---: | :---: | :---: |
| needing- | 104 | sock - | 94 | elsewhere | 94 |
| notified | 103 | soldier | 95 | entitle | 95 |
| occupied | 103 | source | 95 | excitement | 94 |
| opera | 104 | specification - | 93 | executed | 93 |
| hereby - | 104 | strongest | 94 | exhausted | 94 |
| inconvenience | 104 | sugar | 93 | feeder | 94 |
| introduced | 104 | supervision | 93 | inclined | 93 |
| investigate | 104 | talent | 94 | inquiries | 93 |
| jar | 103 | tested - | 94 | inspector - | 94 |
| knee | 104 | topic | 94 | instrument | 93 |
| entering | 104 | towel | 93 | internal - | 94 |
| famous | 104 | trace | 95 | involved | 94 |
| feeding - | 105 | transfer | 94 | ironing - | 93 |
| fish | 103 | unusually - | 93 | jury | 93 |
| froze | 105 | wake | 93 | knot | 95 |
| friendly | 104 | walked | 94 | lbs. | 93 |
| gained | 105 | walking | 94 | leather | 94 |
| granted | 104 | weren't | 94 | lift | 94 |
| harvest | 105 | witch | 95 | listen | 93 |
| spelling | 104 | worker - | 94 | losing | 94 |
| stage | 104 | worm | 94 | loyal | 94 |
| stating | 103 | canvass | 9.4 | lung | 94 |
| stunt | 104 | carpet | 93 | maid | 94 |
| succeeded | 104 | backing | 94 | maker | 94 |
| tenth | 105 | bat | 94 | mass | 95 |
| throw | 105 | bite | 93 | mechanical | 94 |
| toy | 105 | boiler - | 94 | nineteen | 94 |
| treat | 103 | forenoon | 94 | notion | 94 |
| unusual | 103 | formerly | 94 | percent - | 93 |
| voting - | 103 | frankly | 94 | politics | 93 |
| wage - | 106 | freeze | 94 | peculiarities | 93 |
| watched | 106 | French | 94 | privilege - | 93 |
| wedding | 10 ö | fullest - | 94 | prospective | 93 |
| enrollment | 103 | genuine | 93 | prosperity - | 93 |
| entertain | 105 | girlie | 93 | prosperous | 93 |
| evidently | 103 | government | 94 | proved | 93 |
| exam. | 105 | grantrar | 93 | queen | 94 |
| extremely | 105 | gravy - | 93 | changing | 94 |
| favorite | 104 | grocery | 93 | compelled | 94 |
| funeral | 103 | heap | 95 | composition | 9 9 |
| ghost | 104 | accommodate | 93 | confer | 93 |
| hang | 105 | accompanying - | 93 | confirmation | 93 |
| rack. | 93 | alive | 94 | constantly | 94 |
| reduce | 93 | applied | 93 | contained | 94 |
| remove | 93 | assembly | 94 | consequence | 93 |
| removed | 95 | assurance | 94 | cheer | 84 |
| renter | 94 | convinced | 94 | choir | 84 |
| resigned | 95 | dare | 93 | choosing | 84 |
| rheumatism | 93 | described | 94 | chose | 83 |
| ribbon | 93 | destroyed | 93 | conservatory : | 83 |
| row | 94 | development | 94 | consultation - | 84 |
| rural | 94 | directed | 93 | inch | 83 |
| rust - | 93 | dirty | 93 | junk | 83 |
| seldom | 94 | disposal | 94 | junior | 83 |
| setting | 95 | dispose | 93 | justified | 83 |
| sevenzy | 93 | disposed | 93 | kiss | 83 |
| signing - |  | dreadful | 93 | kitten | 83 |
| slippery - | 93 | durable | 93 | leisure | 83 |


| -license | 83 | absolute | 83 | waited | 8 |
| :---: | :---: | :---: | :---: | :---: | :---: |
| lighting - | 84 | activity | 84 | watching | 8 |
| limb - | 85 | agreed | 83 | rail | 8 |
| lining | 84 | agricultural | 83 | recall | 8 |
| -literary | 84 | allotment | 83 | recite - | 8 |
| loved | 83 | ambition | 83 | refused | 8 |
| produced | 83 | artist | 84 | remembrance | 84 |
| lucky | 84 | formed | 84 | renting | 84 |
| maple | 83 | forwarding | 8 § | repeat | 84 |
| marking | 83 | friendship | 83 | representation | 83 |
| minister | 83 | gaining | 83 | reservation | 83 |
| misunderstanding | 84 | glasses | 83 | responsibility | 84 |
| moderate | 84 | glorious | 83 | rice | 83 |
| namely | 84 | grant | 84 | rolling | 8 |
| nearer | 84 | grind | 83 | roof | 84 |
| ninety | 84 | guide | 84 | collecting | 83 |
| nobody | 84 | Hallowe'en | 83 | connected | 83 |
| occasionally | 84 | hare | 83 | relieved | 74 |
| oldest | 85 | hit | 83 | remembering - | 7 |
| ordering | 83 | honorable | 84 | renewed | 7 |
| organ | 84 | hoped | 84 | rod | 7 |
| originally | 84 | household | 83 | Sabbath | 7 |
| overcoat- | 84 | humor | 84 | satisfactorily | 7 |
| pain | 84 | illustration | 83 | scarce | 7 |
| painter - | 85 | attain | 84 | shoulder | 74 |
| pearl- | 83 | auntie | 83 | silence | 7 |
| personality | 83 | colt | 84 | sin | 7 |
| pink | 84 | braid | 84 | sis | 7 |
| plow | 84 | branches | 84 | skate | 7 |
| posted | 84 | brand | 85 | soap | 7 |
| preacher | 85 | breaking | 84 | soliciting | 73 |
| presented | 83 | bro. | 83 | sorrow | 73 |
| procured | 83 | camp | 85 | spot | 73 |
| quotation | 83 | carnival | 83 | straightened | 74 |
| materially | 83 | saddle | 83 | strawberries | 7 |
| conveniently | 83 | shock | 84 | strict | 74 |
| cooking | 84 | shot | 83 | strongly | 7 |
| cord | 83 | showed | 83 | sunshine | 7 |
| cordial | 83 | seller | 85 | superior | 73 |
| correctly | 84 | served | 83 | that's | 74 |
| darling | 84 | sire - | 83 | theatre | 7 |
| debate | 83 | sleet | 83 | thesis | 7 |
| demonstration | 84 | smaller | 83 | tract | 7 |
| decline | 84 | smart | 85 | treated | 7 |
| devoted | 84 | snap | 83 | tuberculosis | 7 |
| dose - | 85 | somewhere | 83 | Tues. | 7 |
| dread | 83 | speed | 83 | turkey | 73 |
| dressed | 85 | spending | 83 | universal | 7 |
| dwelling | 83 | struggle - | 85 | satisfactory | 7 |
| earning | 84 | surface | 84 | vision | 7 |
| electrical | 83 | tanning - | 83 | weighed | 7 |
| electricity | 84 | telegram | 83 | we've | 7 |
| employee | 83 | tend | 84 | withdraw | 7 |
| entertaining | 83 | tip | 83 | worthy | 7 |
| establish | 83 | transit | 83 | yourselves | 7 |
| expressed | 83 | travel | 84 | brick | 7 |
| extensive | 83 | tread | 83 | broad | 73 |
| fare | 85 | treasurer | - 83 | builder | 73 |
| faster | 83 | vacant | 84 | bulk | 7 |


| calender | 74 | expired | 73 | hauled |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
| canned | 73 | extreme | 73 | healthy |  |
| attitude | 73 | fabric | 73 | kinder |  |
| authorized | 74 | factor | 73 | housekeeping - |  |
| avoid | 73 | factories | 74 | hustling - |  |
| banquet | 74 | fashionable | 74 | improving |  |
| belonging | 74 | fierce | 74 | authority |  |
| blackberries - | 74 | filing | 73 | backed |  |
| blessed | 74 | financially | 73 | barely |  |
| booster | 73 | fitted | 73 | baking |  |
| bowl | 73 | fitting | 73 | bass |  |
| brain | 73 | included | 74 | battle |  |
| fourteen | 74 | introduction | 73 | beaten |  |
| frame | 74 | ivory | 73 | beet |  |
| fundamental | 73 | label | 74 | bible |  |
| generous | 74 | lame | 74 | billed |  |
| glee | 73 | legal | 73 | blooming |  |
| globe | 74 | legislation | 73 | boarding |  |
| goose | 73 | level | 73 | buggy |  |
| gown | 74 | liquid | 73 | candle |  |
| gradually | 73 | loaded | 74 | cane |  |
| grit. | 74 | musical | 74 | captain |  |
| hen | 74 | nap | 73 | sash |  |
| heretofore | 75 | narrow | 73 | saved |  |
| herein | 73 | nickle | 73 | scale |  |
| immense | 73 | noted | 73 | score |  |
| impression | 74 | ocean | 73 | seal |  |
| acting | 73 | outlined | 73 | search |  |
| alley | 75 | oven | 74 | shame |  |
| amendment | 73 | phosphorus - | 73 | shed |  |
| anniversary | 73 | pneumonia | 74 | serving |  |
| appendicitis | 73 | possess | 74 | slept |  |
| arriving | 73 | practicing | 73 | slight |  |
| assortment | 73 | prayer | 74 | slipper |  |
| cooler | 73 | preliminary | 73 | song. |  |
| corrected | 73 | printer | 73 | specially |  |
| courage | 74 | process | 73 | steam |  |
| damp | 73 | promotion | 74 | stranger |  |
| data | 74 | protected | 73 | struck |  |
| decision | 73 | prevail | 75 | substitute |  |
| dearly | 73 | overlooked | 73 | suffering |  |
| deeply | 73 | cat | 73 | surgery |  |
| demonstrated | 74 | cement | 75 | sweater |  |
| deserve | 73 | cheerful | 73 | temple |  |
| discourage | 73 | circus | 74 | tent |  |
| discovered | 73 | confirm | 73 | thereof |  |
| drilling | 73 | connecting | 73 | thick |  |
| eighteen | 74 | constant | 73 | tight |  |
| eighty | 74 | commissioner | 73 | timothy |  |
| elect | 74 | foreign | 63 | tiny |  |
| employer | 73 | forest | 63 | trained |  |
| engineer | 73 | frequently | 63 | traveling | 6 |
| enormous | 73 | fuel | 63 | uniform |  |
| enroll | 73 | geometry | 63 | upper |  |
| enthusiasm | 74 | germ | 63 | utmost |  |
| ere | 73 | German | 63 | velvet |  |
| estimated | 73 | graduating | 63 | weary |  |
| examined | 73 | grew | 63 | worrying | 6 |
| exciting | 73 | hardware | 64 | woven | 6 |


| youth | 63 | inducement | 63 | hereafter | 54 |
| :---: | :---: | :---: | :---: | :---: | :---: |
| dice | 63 | ingredients | 63 | homestead | 53 |
| accomplished | 63 | insert | 64 | hurried | 53 |
| contemplating | 63 | instruct | 64 | identify | 54 |
| co-operating | 63 | interfere | 63 | illness | 54 |
| courteous | 63 | island | 61 | illustrating - | 53 |
| creamery | 63 | joyful | 63 | adding | 53 |
| crew | 64 | leaf | 64 | adventure | 53 |
| customary | 63 | liver | 65 | advisable | 53 |
| dangerous | 63 | loud | 64 | ankle | 53 |
| definitely | 64 | maturity | 64 | anticipating - | 53 |
| dependent | 63 | mere | 64 | anyhow | 53 |
| deportment | 63 | meter | 63 | asleep | 55 |
| depending | 63 | nister | 63 | associate | 53 |
| deliveries | 63 | needle | 63 | reaching | 53 |
| deserved | 64 | nephew | 65 | realizing | 53 |
| disappoint | 64 | notary | 64 | recess | 53 |
| discontinued | 63 | numerous | 64 | refreshment | 54 |
| dream | 63 | odd | 64 | relationship | 53 |
| dresser | 63 | packing | 63 | resident | 53 |
| drew | 64 | painted | 63 | resource | 53 |
| eager | 63 | pavement | 64 | respond | 53 |
| eleventh | 63 | pending | 63 | ruin | 53 |
| employed | 63 | pertaining | 64 | rushed | 54 |
| encourage | 64 | physician | 63 | rye | 53 |
| enrolled | 63 | planted | 63 | continuous | 53 |
| epidemic | 63 | politician | 64 | contrary | 53 |
| equally | 63 | post office | 64 | counting | 53 |
| excited | $\bigcirc 3$ | prevented | 63 | coy | 53 |
| exhibition | '63 | performed | 63 | creep | 54 |
| existing | 64 | ninth | 63 | crib | 53 |
| federal | 64 | nevertheless | 63 | crippled | 53 |
| raiser | 63 | likewise | 63 | cushion | 53 |
| rank | 63 | inviting | 64 | daddy | 54 |
| recovered | 63 | installment | 63 | debating | 53 |
| refuse | 64 | absent | 63 | decrease | 55 |
| regardless | 63 | accredited | 63 | desiring | 53 |
| reliability | 63 | acquire | 64 | destination | 54 |
| relieve | 63 | administrator | 63 | disagreeable | 53 |
| remained | 64 | admit | 63 | disappointment - | 54 |
| remark | 64 | advancement | 63 | disgusted | 53 |
| resulting | 63 | agreeable | 65 | drama | 53 |
| rifle | 63 | ambitious | 63 | ease | 53 |
| rip | 63 | anticipate | 64 | examiner | 53 |
| rubber | 64 | apart | 63 | excess | 53 |
| charming | 61 | appreciating - | 63 | flavor | 53 |
| checked | 63 | associated | 63 | flesh | 54 |
| cherries | 65 | frozen | 53 | followed | 53 |
| chill $>$ | 63 | graze | 54 | foolish | 53 |
| chop | 63 | gland | 53 | female | 54 |
| clothing | 63 | goat | 54 | fern | 54 |
| coin | 63 | gold fish | 54 | dodge | 53 |
| companion | 63 | graduatior. | 53 | duties | 53 |
| comply | 65 | grandfather | 53 | chum | 53 |
| conclusion | 63 | gratitude | 53 | celebrate | 54 |
| confirming | 63 | harder | 54 | channel | 53 |
| congratulate | 64 | hastily | 5.4 | characteristic - | 53 |
| congratulation | 64 | headache | 53 | clay |  |
| contemplated | 63 | heating * | 54 | clever | 53 |


| climate | 54 | nearest | 54 | tea | 53 |
| :---: | :---: | :---: | :---: | :---: | :---: |
| cloudy | 54 | nicer | 54 | temporary | 53 |
| closer | 5 | occurred | 5 5 5 | terribly | ${ }_{5}^{5} 4$ |
| coasting colder | $\stackrel{5}{5}$ | pail | $\stackrel{5}{5}$ | thirewn | 5 5 5 |
| complement | 53 | partner | 54 | toe | 55 |
| compared | 53 | pan | 53 | tore | 54 |
| condemned - | 54 | pickle | 54 | treasure | 53 |
| consent | 53 | noultry | 54 | truth | 53 |
| contented | 53 | progressive | 53 | twenty-five | 54 |
| consult | 53 | proportion | 54 | undertake | 53 |
| constructed | 53 | purple | 54 | unexpected | 54 |
| inquiring | 53 | quilt | 53 | unpleasant | 53 |
| insignificant | 53 | presentation | 53 | urged | 3 |
| invest | 53 | now-a-days | 54 | urgent | 53 |
| jealous | 53 | polite | 53 | via | 3 |
| jelly | 54 | organizing | 53 | walnut | 53 |
| laundry | 54 | pear | 53 | wasted | 53 |
| lamp | 53 | scarcely | 53 | widow | 54 |
| led | 53 | sea | 54 | yield | 53 |
| lend | 53 | shortage | 53 | attack | 54 |
| lively | 53 | severe | 53 | attacked | 53 |
| Lord | 54 | shell | 53 | beginner | 53 |
| lying | 53 | shining | 54 | coloring | 53 |
| major | 53 | sidewalk | 53 | combine | 53 |
| male | 53 | smoke | 54 | combined | 53 |
| mast | 53 | speech | 53 | boost | 3 |
| measuring | 54 | spoil | 55 | carpenter | 54 |
| measurement | 54 | spoon | 53 | cabbage | 54 |
| mentioning | 53 | staid | 53 | bark | 53 |
| mileage | 53 | stopping | 53 | buried | 53 |
| military | 53 | straw | 54 | breath | 54 |
| mode | 54 | stuck | 54 | fore | 53 |
| muddy | 53 | substantial | 53 | formula | 54 |
| moisture | ${ }_{5}^{5} 5$ | survey |  | fought | 53 |
| mood mually | 5 5 5 | tape task | 53 54 |  |  |

## CHAPTER IV

## A COMPARISON OF VARIOUS WORD LISTS

## DIFFERENT WORDS AND RUNNING WORDS OF VARIOUS STUDIES COMPARED

From Table VIII it will be seen that Ayres found 2001 different words in 110,160 running words. Jones in his study reported that in $15,000,000$ running words approximately 4532 different words were found. It seems incredible that in such a large number of running words only about 4532 different words should be found. Unfortunately, as has been said before, Jones did not give the total number of words or the frequencies of occurrence. The writer is inclined to think that these numbers are very rough estimates. Cook and O'Shea analyzed 200,000 running words and found 5200 different words. Studley and Ware found 3459 different words in 200,000 running words, while Miss McFadden and Dr. Burk found 6916 different words in only 19,288 running words. In the latter study nearly 36 per cent of the total running words are different words, while the studies of Ayres, Jones, Cook, and O'Shea show less than 3 per cent of different words. In the present study 9223 different words were found in 361,184 running words. This great variation shows the danger of drawing conclusions from the findings of a single study, especially when it is quite limited in scope.

It is safe to say that the only way to come near exhausting the supply of different words used in correspondence would be to tabulate many thousands of running words of each of the various kinds of correspondence. This would be a tremendous and useless task as the later occurring words would be the uncommon words, or those peculiar to particular callings.

## NUMBER OF DIFFERENT WORDS FOUND

In comparing the results of the present study with those of other investigators some interesting revelations are made. By referring to Chapter I, it will be seen that in 12 of the 15
studies discussed a record is given of the number of different words found. Of these the study made by Miss McFadden and Dr. Burk shows the greatest number of different words,-6916. This is 1685 more than was found in any of the remaining studies, excepting the study made by R. C. Eldridge, which is not properly a study of writing vocabularies. This study and that of Rev. Mr. Knowles, as stated in a previous chapter, were included chiefly because of their historical connection. It will be seen that the present study, which shows 9223 different words, reveals 2307 more different words than any of the 15 studies mentioned. This number (2307) is greater than the total number of different words found in Ayres' study of 2000 different letters.

In comparing the number of different words found in the original studies made by Ayres, Jones, Cook and O'Shea, Miss McFadden and Dr. Burk, and Studley and Ware, respectively, with the number found in the present study it will be seen that the present study contains 7222 more different words than the study of 2000 letters made by Ayres; 4691 more than were found by Jones in his study of 75,000 school children's themes; 4023 more than were found by Cook and O'Shea in their study of family correspondence; 2307 more than were found by Miss McFadden and Dr. Burk in their analysis of 91 letters; and 5764 more than were found by Studley and Ware in their analysis of 920 compositions. In thus comparing the number of different words found in these studies allowance must be made for the fact that the scoring was not exactly alike in any two cases. The numbers therefore are only roughly comparable.

## RELATION OF DIFFERENT WORDS TO RUNNING WORDS

In the present study a larger number of running words was tabulated than in any of the studies mentioned in Chapter I, excepting the study made by Jones. It is safe to say, in general, that the greater the number of running words tabulated the greater will be the number of different words found. The ratio of the different words to the total number of running words, however, varies inversely with the increase of running words. That is, the percentage or number of different words
found becomes a smaller and smaller fraction of the total number of running words. New words, however, will occur in many successive thousands of running words. This is evident from the fact that after 3700 letters had been analyzed in the present study new words were still occurring. It is revealed also in the special tabulation of successive units of running words shown in Table XII, page 25 , and in the tabulation made by Cook and O'Shea, in which the correspondence of three individuals was tabulated up to and including 40,000 running words.* Here in the fortieth thousand running words one individual used 19 new words, one 12 , and one 17 . The ratio of the number of different words to the total number of running words will not be revealed, however, by comparing the results of different studies unless they are sufficiently comparable throughout.

## RELATIVE USE OF A FEW WORDS

It has been shown by various investigators that a relatively small number of different words with their repetitions comprises the greater part of a common writing vocabulary. According to Rev. Mr. Knowles, about 350 words with their repetitions comprised over 75 per cent of the 100,000 words tabulated. Mr. Eldridge says that 750 words with their repetitions constituted more than three-fourths of all the words on the eight pages of the newspapers from which they were taken. Dr. Ayres found that 542 words with their repetitions constituted seven-eights of the entire number of words tabulated from all the letters, and that 43 words were repeated so frequently that they furnished one-half of the aggregate of nearly 24,000 words tabulated. In the present study it was found that 14 words with their repetitions comprised approximately one-fourth of the total number of running words. Similarly, 77 words with their repetitions comprised one-half of the total running words, and 442 words comprised three-fourths of the totalnumber. The remaining 8690 different words with their repetitions make up the last one-fourth of the total number of running words.

> PRESENT STUDY AND AYRES' ORIGINAL STUDY COMPARED

Among the various studies that have been made on spelling

[^4]he original study of 2000 personal and business letters made by Dr. Ayres is probably the best known and most used. Therefore a more detailed comparison of the methods of scoring and the findings of this study is made with the present study. The number of letters analyzed, the total number of running words included, and the number of different words found in these two studies have already been referred to various times throughout this thesis. But as a matter of convenience for comparison they are repeated here. In the present study the number of letters analyzed was 3723 , the total number of running words was 361,184 , and the number of different words found was 9223. In the study made by Ayres the number of letters analyzed was 2000 , the number of running words was 110,160 , and the number of different words found was 2001. The methods of scoring and tabulating in the present study are given in detail on page 28.

## METHOD EMPLOYED BY AYRES

The method employed by Ayres is explained by him as follows: "Owing to the labor involved in tabulating the vocabularies, the entire letters were not analyzed, but a random sampling was made by tabulating the first word in each line of every letter, and making separate tabulations of the salutations and endings. Following this method, and using index cards for record purposes, a word-by-word tabulation was made of 23,629 words, or roughly one-fifth of the entire number of words contained in all the letters. In arriving at this number the 'beginning' and 'ending' words, such as 'Dear Sir', 'Yours truly', etc., were included only in their proper proportion. That is to say, the final tabulations include something less than one-fifth of them. . . . . In making the tabulations names of numbers, persons, and places were omitted."

Ayres, in his study, counted the article "A" and the pronoun "I" as separate words. In the present study these were not recorded. The nature of the letters analyzed and the various sources from which they had come, according to Ayres, were as follows: "The material of the investigation consisted of 2000 letters, the vocabularies of which were tabulated word for
word. These letters were secured from twelve sources, ard were of the following sort:

Letters to firms doing a mail order business
Letters received by a practicing physician
Letters to the query department of a city newspaper
Letters received by a practicing lawyer
Letters received by school teachers from parents of pupils
Miscellaneous business letters to a publishing firm
Letters received by the secretaries of the Y. W. C. A.
Letters received by a playground association
Letters received by a philanthropic organization
Personal family letters from a large number of sources
Letters received by a magazine conducting a query department
A small but varied collection of love letters."
From the above it will be seen that the letters analyzed in this study represent a great variety of different interests. When the diverse and varied nature of the letters is borne in mind and the fact that they were written by 2000 different individuals, it seems strange that the number of different words found should be so much smaller than the number found in the present study. The writer has no information as to the geographical distribution of the sources from which these letters were collected. Furthermore, there is no evidence to show that a different distribution would have resulted in an appreciably greater number of different words. It seems probable, however, that letters collected from parents and friends of the school children of various cities throughout the state would be likely to represent a wider range of educational levels than letters collected by one or a few individuals in a given city.

## RELIABILITY OF METHOD

It is somewhat questionable whether the method employed by Ayres of tabulating the first word of every line in each letter is sufficiently reliable for determining the number of different words used. When one bears in mind the fact that additional new words occur throughout many successive thousands of running words it seems reasonable to assume that more different words would also have been found if the remaining words in
every line of the 2000 letters had been tabulated. It should be said, however, that Ayres does not claim this study to be sufficiently reliable or extensive to determine the most common words used in writing. Concerning this he says, "No final conclusions can be drawn from the results of this study for it is too limited in scope to warrant them."

If a tabulation of the first word in every line can be taken as sufficiently reliable it may be said that the methods of scoring and tabulating employed in the two studies have been fairly comparable throughout, aside from the fact that in one of the studies the single letters " $A$ " and "I" were counted as words while in the other they were omitted.

## PROBABLE REASONS FOR DIFFERENCE IN NUMBER OF WORDS FOUND

In comparing the total number of different words found in each of these two studies one might reasonably expect to find more words in the present study than were found in the study made by Ayres, because of the fact that many more letters were analyzed in the present study. It does not seem, however, that the difference should be so great; that there should be over four and one-half times as many different words found in the present study as were found by Ayres in his study. This the writer believes is to be explained, in part at least, by the fact that in the Ayres study only the first word of every line was tabulated. That the difference is not due chiefly to the greater number of letters or running words analyzed is shown by the fact that in each of the four general groups, of the present study, taken separately, more different words were found than were found by Ayres. By referring to Table X on page 22 it will be seen that in each of these groups there were fewer than 2000 letters analyzed, and in three of the four groups more than twice as many different words were found. From this table a comparison can readily be made with each of these groups separately, showing the number of letters analyzed, the total number of running words and the number of different words found.

## WORDS AND THEIR REPETITIONS CONSTITUTING ONE-FOURTH OF TOTALS

The following table shows the words which with their repe-
titions constitute one-fourth of the total number of running words tabulated in each of the two studies.

## TABLE XIII

Words and their repetitions constituting one-fourth of totals

| Ayres' Study | Present Study |  |  |
| :--- | ---: | :--- | ---: |
| I | 1080 | and | 11893 |
| the | 918 | the | 10878 |
| and | 697 | to | 9965 |
| you | 635 | you | 8090 |
| to | 627 | of | 7339 |
| your | 585 | in | 6533 |
| of | 511 | your | 5269 |
| for | 415 | for | 5122 |
| in | 391 | we | 4705 |
|  | 5885 | is | 4650 |
| Dear | 380 | that | 4622 |
| will | 297 | it | 4214 |
| my | 258 | have | 3996 |
| with | 255 | are | 3885 |
|  |  |  | 91161 |

From the above it will be seen that "I" which was not recorded in the present study occurred 1080 times in the tabulations made by Ayres. This is over 18 per cent of 5859. Excluding " $A$ " and "I" from the Ayres list for the above comparison, the words next in order and their frequencies would be: dear, 380 ; will, 297 ; my, 258; and with, 255 . These four words would then be necessary to constitute approximately onefourth of the total running words recorded.

## COMPLETENESS OF WORD LIST

It will be remembered that in making up the final list of words in the present study the arbitrary method of selecting all words which occurred in three or more of the six general groups (see page 22) with a frequency of five or more was adopted, and that this gave 3087 words for the final list. The question now naturally arises as to whether this list of 3087 words includes all or practically all words that are sufficiently common to be taught in the elementary school, and also whether the list still includes words that are not sufficiently common for this purpose. Some light will be thrown on this question by comparing the final word list of the present study with the tentative list made by H. C. Pryor of the University of Colorado. Mr. Pryor made a study and compilation of twelve different spelling tests and word lists. These are referred to on page

13 of this thesis. The method of procedure used by Pryor is explained by him as follows :
"After the lists had been selected, each one was numbered and all the words were checked off in a dictionary. The figure 'one' was placed before every word in the dictionary which occurred in the Eldridge list. 'Two' was placed before each word that was found in the Jones list. The other ten lists were checked against the dictionary after the same fashion. Altogether, about 30,000 words were checked. By far the greater number occurred in only one list, a somewhat smaller number in two lists and so on down to 121 that were common to 10 lists, 45 were common to 11 lists, and only 9 ; viz., again, any, believe, look, many, money, remember, there, and through, were found in all the lists. It was arbitrarily decided to include in the final list all words which occurred in at least six of the twelve lists examined. There were 1309 such words. To this number were added 169 words from the Ayres scale which were not among these 1309 words, making a total of 1478 words." These 1478 words were tentatively graded by Pryor and constitute his "Minimal" list for grades 2 to 8 , inclusive.

## COMPARISON OF PRESENT LIST WITH PRYOR LIST

In order to see how the 1478 words given in the Pryor list compare with those occurring most frequently in the present study, the two word lists were compared and checked. It will be remembered that the present final list contains altogether 3087 words as against 1478 contained in the Pryor list, or 1627 words more than are given in the Pryor list. In checking the words in the Pryor list against those in the original list of the present study, which shows the frequencies by groups, it was found that many of the 1627 words which are not given in the Pryor list occurred in the present study in several of the different groups with a high frequency. In order to give some idea of the nature of these words a list is here given of 207 words, each of which occurred in four of the general groups with a total frequency of 20 or more. The numbers in the list show the total frequency of occurrence for each word. In making out this list, derived forms were omitted, except where the word occurred only in a derived form.

## WORDS NOT FOUND IN THE PRYOR LIST

| ability | 29 | draft |  | 66 | liberal | 26 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| acre | 103 | either |  | 113 | library | 43 |
| advance | 81 | electric |  | 26 | list | 194 |
| advise | 134 | eleven |  | 24 | luck | 33 |
| agency | 55 | enclose |  | 142 | lunch | 26 |
| agent | 130 | endeavor |  | 22 | madam | 49 |
| degree | 37 | envelope |  | 54 | main | 21 |
| agriculture | 53 | equal |  | 24 | make | 792 |
| aid | 49 | error |  | 37 | mamma | 92 |
| aim | 26 | eve |  | 35 | May | 69 |
| and | 11,893 | exact |  | 22 | merchandise | 2 |
| anyone | 123 | excellent |  | 60 | message | 20 |
| art | 44 | exhibit |  | 24 | model | 32 |
| average | 39 | extra |  | 95 | net | 72 |
| awhile | 22 | fat |  | 48 | normal | 28 |
| bag | 25 | feature |  | 24 | nurse | 34 |
| barrel | 23 | fifteen |  | 49 | oh | 42 |
| barley | 23 | film |  | 25 | oil | 48 |
| bean | 20 | fit |  | 37 | or | 1235 |
| below | 53 | flat |  | 20 | package | 51 |
| bet | 32 | follow |  | 71 | paint | 57 |
| bit | 54 | force |  | 48 | parcel | 31 |
| blank | 140 | fun |  | 52 | pattern | 27 |
| blood | 20 | fund |  | 30 | pen | 23 |
| bottle | 20 | furnish |  | 86 | plate | 54 |
| bulletin | 33 | gain |  | 30 | policy | 81 |
| bunch | 26 | gallon |  | 41 | presume | 29 |
| bureau | 23 | garage |  | 31 | prevent | 31 |
| called | 109 | gas |  | 39 | prize | 51 |
| cap | 24 | gifts |  | 65 | profits | 83 |
| careful | 73 | graduate |  | 40 | program | 83 |
| cash | 73 | grateful |  | 24 | proposition | 85 |
| central | 31 | grove |  | 26 | prospect | 43 |
| certificate | 87 | habits |  | 38 | pupil | 55 |
| chautauqua | 26 | handle |  | 83 | purchase | 45 |
| choice | 42 | handy |  | 21 | quality | 58 |
| commission | 75 | hardly |  | 88 | quit | 49 |
| community | 31 | hate |  | 28 | range | 26 |
| content | 27 | hello |  | 54 | realize | 63 |
| contest | 65 | herewith |  | 194 | record | 119 |
| coal | 28 | hide |  | 44 | register | 70 |
| correct | 52 | hogs |  | 57 | regret | 34 |
| council | 38 | holiday |  | 38 | regular | 94 |
| county | 123 | however |  | 151 | remit | 39 |
| crazy | 24 | hurry |  | 33 | rent | 63 |
| credit | 105 | ideal |  | 20 | require | 46 |
| crop | 43 | invoice |  | 36 | rich | 26 |
| dandy | 51 | January |  | 209 | rush | 27 |
| day | 1057 | job |  | 97 | sample | 146 |
| deed | 45 | join |  | 49 | save | 60 |
| definite | 33 | journal |  | 30 | science | 23 |
| demand | 74 | kid |  | 57 | scout | 41 |
| depend | 36 | Latin |  | 21 | semester | 28 |
| detail | 37 | law |  | 80 | shape | 36 |
| discount | 48 | leader | $\sim$ | 30 | sheet | 45 |
| disease | 21 | lecture |  | 39 | silk | 40 |
| domestic | 21 | less |  | 87 | simply | 32 |


| shirt | 26 | style | 51 | welcome | 57 |
| :--- | :--- | :--- | ---: | :--- | ---: |
| slip | 32 | submit | 29 | well | 850 |
| somewhat | 23 | test | 50 | were | 601 |
| sore | 23 | thirty | 44 | white | 83. |
| sort | 30 | title | 36 | who | 384 |
| sound | 28 | touch | 27 | will | 3486 |
| space | 20 | trade | 77 | wind | 26 |
| spare | 23 | treatment | 28 | word | 83 |
| spirit | 20 | twenty | 57 | worry | 23 |
| step | 23 | twice | 33 | write | 630 |
| storm | 32 | united | 25 | you | 8090 |
| stuff | 25 | value | 102 | young | 91 |

It will be seen that some of the words in this list occurred with high frequency in the present study. It seems strange that the words "and," "or," "day," "make," "will," "who," "you," "write," and "well" should not be included in the Pryor list. The writer is inclined to think that the omission of some of these words from the Pryor list is due to the method employed in scoring and tabulating.

The following 30 words contained in the Pryor list are not given in the present list. Most of these words appeared in the study, but did not occur frequently enough to be included in the final list of 3087 words.

## WORDS NOT FOUND IN THE PRESENT LIST

| allege | convict | palace |
| :--- | :--- | :--- |
| autumn | dash | police |
| beneath | dispute | raisin |
| blossom | empire | region |
| bury | equator | struck |
| bruise | government | shepherd |
| burglar | hammer | ugly |
| cature | mice | vacation |
| cabin | nuisance | tariff |
| career | obedience | tongue |
|  | CONCLUSIONS |  |

From the above it will be seen that neither of the two lists is complete, and that not all simple and familiar words are revealed by this method, even when a large amount of material is scored and tabulated. When such familiar words as "autumn," "bury," "dash," "mice," "police," and "ugly," are not used in 3723 letters of the most varied nature, it seems safe to say that in order to catch the last one of these, or similarly familiar words, many more thousands of letters would have to be scored and tabulated.

The purpose of the present study, however, has been not to
catch the "last" common and familiar word in the tabulated list, but to show approximately the words commonly used. Contrary to opinions formerly held, the present study shows that there are at least 3000 or 3500 common and familiar words that any individual of average intelligence might have occasion to use in letter writing. This does not mean, however, that every one of these words need necessarily be taught in formal spelling lessons in the elementary school. Some of the older spelling books which contain many more words do not include some of the most familiar and simple words. Furthermore, there is a growing conviction among educational leaders that fewer words should be taught in formal spelling lessons and that attention should be given rather to spelling in connection with all written work.

## APPENDIX MISSPELLED WORDS

By referring to the directions for teachers and pupils on page 16, it will be seen that the teachers were asked to have the pupils review a list of common words most likely to be misspelled, and that the pupils were required to record separately all misspelled words. The returns of these lists were classified at the University and separate lists were compiled for each of the general groups of domestic, business, and professional correspondence, (see Table X, page 22) and for the personal and farmers' correspondence combined. The special groups of letters from doctors, bankers, and automobile dealers are included in the business and professional correspondence.

From the table on the following pages, it will be seen that in the domestic correspondence 601 words were misspelled once each, while 66 words were misspelled from two to 22 times each. In the business correspondence 619 words were misspelled once, while 45 were misspelled from two to six times each. The professional group shows 408 words misspelled once and 26 misspelled from two to five times each. In the personal and farmers' correspondence (grouped together) 238 words were misspelled from two to 21 times each. Only 52 of the 126 words shown in the table were misspelled two or more times in more than one of the groups. In comparing the number of misspelled words in the receptive groups it should be remembered that the groups do not represent an equal amount of material and that they are therefore not comparable when taken as a whole.

The table shows the words that were misspelled two or more times in each of the above named groups, the frequency of misspelling for each word in each of the respective groups, and the total number of times each word was misspelled in all the groups combined.

From this table it will be seen that a comparatively small number of the words which were misspelled in each of the respective groups were misspelled more than once, and that the majority of these were misspelled two times only. It will be
seen that only about a dozen words show any marked frequency of misspelling. Words that are misspelled only once in several hundred letters cannot be said to present any special spelling difficulty and it does not seem that those misspelled twice could be classed as such.

The essential conclusion which can be drawn from this tabulation of misspelled words is that there are relatively few of the words tabulated that show any special spelling difficulty.

MISSPELLED WORDS

| WORDS MISSPELLED TWO OR MORE TIMES IN EACH OF THE FOLLOWING GROUPS |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
|  | Domestic | Business | Professional | $\left.\begin{aligned} & \text { Personal } \\ & \text { \& Farmer }\end{aligned} \right\rvert\,$ | Totals |
| account |  | 2 |  |  | 2 |
| addition |  | 2 |  |  | 2 |
| address |  | 2 | . |  | 2 |
| advertisement |  |  |  | 2 | 2 |
| against |  |  |  |  |  |
| ain't | 3 |  |  |  | 3 |
| all right | 14 |  | 2 | 21 | 37 |
| answer | 2 |  |  |  | 2 |
| any | 2 |  |  |  | 2 |
| any time |  |  | 2 |  | 2 |
| any place |  |  | 2 |  | 2 |
| ask | 2 |  |  |  | 2 |
| aunt | 2 |  |  |  | 2 |
| baton | 5 |  |  |  | 5 |
| been | 2 | 2 |  |  | 4 |
| began | 2 |  |  |  | 2 |
| beginning | 2 | 2 |  |  | 4 |
| believe | 4 | 2 |  |  | 6 |
| be sure | 3 |  |  |  | 3 |
| borrow |  | 2 |  |  | 2 |
| both | 2 |  |  |  | 2 |
| bought |  |  | 2 |  | 2 |
| business | 2 | 2 | 3 |  | 7 |
| busy |  | 2 |  |  | 2 |
| buyer |  | 3 |  |  | 3 |
| by | 5 |  |  |  | 5 |
| cannot |  | 2 |  |  | 2 |
| can't | 4 |  |  |  | 4 |
| chautauqua | 2 |  |  |  | 2 |
| cleanness |  |  | 2 |  | 2 |
| come |  | 2 |  |  | 2 |
| coming | 9 | 5 |  |  | 14 |
| competition |  |  | 2 |  | 2 |


| daily |  | 2 |  |  | 2 |
| :---: | :---: | :---: | :---: | :---: | :---: |
| date | 4 |  |  |  | 4 |
| dear |  | 2 |  |  | 2 |
| defeated |  | 6 |  |  | 6 |
| deference |  | 2 |  |  | 2 |
| didn't | 12 | 4 | 2 |  | 18 |
| doesn't | 1 |  |  |  | 1 |
| don't | 17 |  |  |  | 17 |
| enough |  | 2 |  |  | 2 |
| envelope |  | 2 |  |  | 2 |
| especially | 3 |  |  |  | 3 |
| every time | 2 |  |  |  | 2 |
| expense |  | 2 | 2 |  | 4 |
| far | 3 |  |  |  | 3 |
| field | 4 |  |  |  | 4 |
| for |  | 2 |  | 13 | 15 |
| fore | 2 |  |  |  | 2 |
| friend | 3 |  | 2 | 2 | 7 |
| from | 3 |  |  |  | 3 |
| get | 3 |  |  |  | 3 |
| getting | 2 |  |  |  | 2 |
| good-bye | 2 |  |  |  | 2 |
| good day |  |  | 4 |  | 4 |
| gotten | 2 |  |  |  | 2 |
| hadn't | 2 |  |  |  | 2 |
| haven't | 10 |  |  | 2 | 12 |
| having | 2 | 2 |  |  | 4 |
| hear |  |  |  | 2 | 2 |
| here |  | 2 |  |  | 2 |
| holiday |  | 2 |  |  | 2 |
| I'm | 5 |  |  |  | 5 |
| inst. |  |  | 2 |  |  |
| invoice |  | 2 |  |  | 2 |
| isn't | 3 |  |  |  | 3 |
| judgment |  | 2 |  |  | 2 |
| just | 2 |  |  |  | 2 |
| know | 5 |  |  |  | 5 |
| living | 2 |  |  |  | 2 |
| lovely | 2 |  |  |  | 2 |
| mamma | 22 |  | 5 | 9 | 36 |
| mason |  | 2 |  |  | 2 |
| may-be | 4 |  |  |  | 4 |
| more | 3 |  |  |  | 3 |
| morning |  |  | 3 |  | 3 |
| move |  | 2 |  |  | 2 |
| necessary |  |  | 2 |  | 2 |
| niece | 9 |  |  | 5 | 14 |
| night |  |  | 3 |  | 4 |
| no | 2 |  |  |  | 2 |
| painted |  | 2 |  |  | 2 |
| pamphlet |  |  | 2 |  | 2 |


| possibly |  | 2 |  |  | 2 |
| :---: | :---: | :---: | :---: | :---: | :---: |
| practicing | 2 |  | 2 |  | 2 |
| privilege |  |  | 2 |  | 2 |
| probably |  | 2 |  |  | 2 |
| professor |  |  | 2 |  | 2 |
| racing |  |  |  | 2 | 4 |
| really |  |  |  | 3 | 3 |
| receipt |  | 5 |  |  | 5 |
| receive | 2 |  |  |  | 2 |
| reelected |  |  | 2 |  | 2 |
| referring |  | 2 |  |  | 2 |
| remember | 2 |  |  |  | 2 |
| respectfully |  |  |  | 2 | 2 |
| restaurant | 2 |  |  |  | 2 |
| rheumatism | 3 |  |  |  | 3 |
| secretary |  |  | 2 |  | 2 |
| shopping | 3 |  |  |  | 3 |
| since | 3 |  |  |  | 3 |
| sincerely |  | 4 |  |  | 4 |
| son |  | 2 |  |  | 2 |
| space |  | 2 |  |  | 2 |
| spasm |  | 2 |  |  | 2 |
| splendid |  |  | 2 |  | 2 |
| stomach | 2 |  |  |  | 2 |
| studying | 2 |  |  |  | 2 |
| sturgeon |  | 2 |  |  | 2 |
| success |  | 2 |  |  | 2 |
| suppose |  | 2 |  |  | 2 |
| surely | 4 |  |  |  | 4 |
| surprise |  | 2 |  |  | 2 |
| their | 2 |  |  |  | 2 |
| there | 8 |  |  |  | 8 |
| though | 5 |  | 3 |  | 8 |
| thought | 8 |  | 4 |  | 12 |
| through | 3 |  |  |  | 3 |
| to |  |  |  | 8 | 8 |
| tomorrow | 2 |  |  |  | 2 |
| unless |  | 2 |  |  | 2 |
| until | 11 | 2 |  |  | 13 |
| valise |  |  | 2 |  | 2 |
| wasn't |  |  | 2 |  | 2 |
| whether | 3 | 2 |  |  | 5 |
| Total No. of words misspelled two or more times each | $65^{\circ}$ | 45 | 26 | 12 | 148 |
| Total No. of words misspelled once each | 106 | 619 | 408 | 238 | 1371 |

## BIBLIOGRAPHY

1. Ayres, L. P., The One Thousand Commonest Words.
2. 
3. The Spelling Vocabularies of Personal and Business Letters.
4. Babitt, E. H., 'A Vocabulary Test,' Popular Science Monthly, 70 (1907), p. 378.
5. Baird, W. R.,' 'The Study of Language,' Memory, May-June, 1891.
6. Baker, E. W., 'The Problem of Two Vocabularies,' Education, 33 (1912), pp. 238-242.
7. Barnes, N. W., 'The Working Vocabulary,' The Nation, 93, pp. 262-263.
8. Bateman, W. G., 'The Language Status of Three Children of the Same Age,' Pedagogical Seminary, 23 (1916), pp. 211-240.
9. Bell, Florence, 'Our Present Vocabulary,' Living Age, 255 (1907), pp. 416-419.
10. Bell, Sanford, 'The Significance of Activity in Child Life,' Independent, 55 (1903), pp. 911-914.
11. Beyer, T. P., 'The Vocabulary of Two Years,' Educational Review, 49 (1915), pp. 191-203.
12. Beyer, T. P., 'The Vocabulary of Three Years,' Educational Review, 52 (1916), pp. 478-489.
13. Bobbitt, Franklin, What the Schools Teach and Might Teach, The Cleveland Survey.
14. 
15. Bobbitt, Franklin, and Judd, Charles H., School Survey of District Number One in the City and County of Denver, Part II, 1916.
16. Bohn, William E., 'First Steps in Verbal Expression,' Pedagogical Seminary, 21, p. 578.
17. Bonser, F. G.,' and others, 'Vocabulary Tests as Measures of School Efficiency,' School and Society, 2, pp. 713-718.
18. Boyd, William E., 'The Development of a Child's Vocabulary,' Pedagogical Seminary 21, p. 95.
19. Brandenburg, G. C., and Julia, 'The Language of a Three-YearOld Child,' Pedagogical Seminary, 22, pp. 89-120.
20. 'Language Development during the Fourth Year,' Pedagogical Seminary, 23, pp. 14-29.
21. Buckingham, B. R., Spelling Ability: Its Measurement and Distribution, Teachers College, Columbia, Contributions to Education, No. 59, 1913.
22. Burnham, William H., 'The Hygiene and Psychology of Spelling,' Pedagogical Seminary, 13, pp. 474-501.
23. Bush, Arthur D., 'The Vocabulary of a Three-Year-Old Girl,' Pedagogical Seminary, 21, p. 125.
24. Charters, W. W., Teaching the Common Branches.
25. Cleveland, Ohio, Board of Education, Preliminary Report on Simplified Course of Study, 1909.
26. Cook, W. A., and O'Shea, M. V., The Child and his Spelling.
27. 'Common Man's Vocabulary,' The Nation, 89 (1909), pp. 531-532.
28. Cornman, O. P., Spelling in the Elementary Schools.
29. Course of Study, Public Schools, Baltimore County, Maryland, 1915.
30. Cubberley, Ellwood P., School Organization and Administration.
31. Dewey, J., 'The Psychology of Infant Language,' Psychological Review, 1 (1894), pp. 63-66.
32. Des Moines Annual Report of Public Schools, 1915. (Section given to Spelling).
33. Doran, E. W., 'A Study of Vocabularies,' Pedagogical Seminary, 14, pp. 401-438.
34. Eldridge, R. C., Six Thousand Common English Words.
35. 'Elusiveness and Attraction of Words, On The,' The Spectator, 116, pp. 545-546.
36. Gale, M. C., and H., 'Children's Vocabularies,' Popular Science Monthly, 61, pp. 45, 51.
37. Peda 'The Vocabularies of Three Children in One Family,' Pedagogical Seminary, 9, pp. 422-435.
38. Gale, M. C., 'Words Used by Eminent Authors,' Popular Science Monthly, 60, p. 97.
39. Gerlach, Fred M., Vocabulary Studies.
40. Greenwood, J. M., Seventeenth Report of the Kansas City Public Schools, 1887-88.
41. Gregory, B. C., 'Rationale of Spelling,' Elementary School Teacher, 8, p. 40.
42. Hall, G. S., Aspects of Childlife and Education, Chap. 1, pp. 62-117.
43. Cch,' 'The Contents of Children's Minds on Entering School,' Pedagogical Seminary, 1, pp. 139-173.
44. Hall, Mrs. W. S., 'First Five Hundred Days of a Child's Life,' Child Study Monthly, 2, pp. 585-608.
45. Heilig, Matthias, 'A Child's Vocabulary,' Pedagogical Seminary, 20, p. 1.
46. Hills, E. C., 'The Speech of a Child Two Years Old,' Reprint from Dialect Notes, Vol. 4, Part 2.
47. Holden, E. S., 'On the Vocabularies of Children Under Two Years of Age, Trans. American Philological Association, 8 (1877), pp. 58-68.
48. Hooper, N. S., 'Schoolboy's Vocabulary,' Nation, 71, p. 275.
49. Humphrey, M. W., 'A Contribution to Infantile' Linguistic,' Trans. American Philological Association, 11 (1880), pp. 5-17.
50. Jegi, J., 'The Vocabulary of a Two-Year-Old Child,' Child Study Monthly, 6, pp. 241-261.
51. Jones, R. G., 'Standard Vocabulary,' National Society for the Study of Education Yearbook, 14, (1915), pp. 37-43.
52. Jones, W. F., Concrete Investigation of the Material of English Spelling. University of South Dakota, Vermilion, South Dakota.
53. Jones, W. F., The Child's Own Spelling Book.
54. Kallen, H. M., 'Style and Meaning,' The Nation, 103 (1916), p. 349.
55. Kirkpatrick, E. A., 'A Vocabulary Test,' Popular Science Monthly, 70, pp. 157-164.
56.     - 'How Children Learn to Talk; A Study of the Development of Language-Children's Vocabularies,' Science 18, pp. 175-176.
57. Science 18, pp. 107-108.
58. Koch, Kathrina, 'The Development of a Vocabulary in the Adolescent,' Educational Review, 49 (1915), pp. 68-73.
59. Ladd and Woodworth, Elementss of Physiological Psychology.
60. Langenbeck, Mildred, 'The Study of a Five-Year-Old Child,' Pedagogical Seminary 22 (1915), pp. 65-68.
61. Luckens, H. R., 'Correspondence,' American Journal of Psychology 10, pp. 163-164.
62. Lukens H.,' 'Vocabulary Study,' Pedagogical Seminary, 3 (1896), 424.
63. Marsh, G. P., Lectures on the English Language.
64. Mateer, Florence, 'The Vocabulary of a Four-Year-Old Boy,' Pedagogical Seminary, 15 (1908), pp. 63-74.
65. Minimum Requirements List in Spelling and in Correct Usage for the Schools of Oregon. State Department of Education, 1916.
66. Moore, Kathleen, 'The Mental Development of a Child,' Psychological Review, Mon. Sup. No. 3, 1898.
67. Muller, F. M., The Science of Language.
68. Nicholson, Anne, A Speller for the Use of the Teachers in California, 1914.
69. Nicholson, Anne, Monograph on Vocabularies.
70. Olerich, Henry and Viola, The Famous Baby Scholar.
71. Payne, B. R., Public Elementary School Curricula.
72. Pelsma, J. R., 'A Child's Vocabulary and its Development,' Pedagogical Seminary, 17 (1908), p. 328.
73. Preyor, W., The Development of the Intellect.
74. Pryor, Hugh C., Report on Spelling. Fourteenth Year Book of the National Society for the Study of Education, Part 1; Sixteenth Year Book, Part 1.
75. Rankin, Jean S., 'The Eighth Grade Vocabulary,' Elementary School Teacher 11, pp. 465-468.
76. Report of a Survey of the Public School System of Butte, Montana, (1914), pp. 69-74.
77. Rice, J. M., The Rational Spelling Book.
78. $\quad$ 163-172, 'Futility of Spelling Grind,' Forum, 23 (1897), pp. 163-172, 409-410.
79. Roe, E. C., and Niles, Helen, 'The Vocabulary of a child at Four and Six Years of Age,' Pedagogical Seminary, 20 (1913), p. 187.
80. Salisbury, A., 'A Child's Vocabulary,' Educational Review, 7, pp. 289-290.
81. Sears, T. B., Spelling Efficiency in the Oakland Schools.
82. Sholty, Myrtle, 'Study of the Reading Vocabulary of Children,' Elementary School Teacher 12, pp. 272-277.
83. Smith, L. P., 'Our Modern Vocabulary,' Living Age 270 (1911), pp. 661-672.
84. Snyder, Alice D., 'Notes on the Talk of a Two and a Half Year Old Boy,' Pedagogical Seminary, 21 (1914), p. 412.
85. Spelling List and Teaching Spelling, Circular No. 14, State of Iowa Department of Public Instruction, Des Moines, Iowa.
86. Studley, C. K., and Ware, Allison, Common Essentials in Spelling, Chico, California State Normal.
87. Survey of Public Schools of Springfield, Illinois, pp. 71-74, 1914.
88. Suzzallo, Henry, The Teaching of Spelling.
89. Teaching of Spelling (The), The State Normal School, Farmville, Va.
90. Teaching of Spelling, Department of Public Instruction, Trenton, New Jersey.
91. Tracy, F., 'The Language of Childhood,' American Journal of Psychology, 6, pp. 107-138.
92. $\longrightarrow$, Psychology of Childhood.
93. Vizetelly, F. H., A Dictionary of Simplifed Spelling.
94. Whipple, G. M. and Mrs., 'The Vocabulary of a Three-Year-Old Boy, Pedagogical Seminary 16, pp. 1-22.
95. Wingfield-Stratford, E., 'Words without Knowledge,' Living Age, 276, pp. 162-168.
96. Yocum, A. D., 'The Compelling of Efficiency through Teacher Training', School and Society, 1 (1915) pp. 469-477.


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[^1]:    ${ }^{1}$ In a few high schools a class of Normal Training students collected and analyzed some of the letters. Some of the doctors' and bankers' letters were collected by the writer at Iowa City and analyzed at the University. These letters, however, had also come from various parts of the state.

[^2]:    1. For words used exclusively in each of the five scpecial groups see Table XI page .
    2. For accuracy and reliability see page 28.
[^3]:    * Doctors' words,-abandon 2, abdomen 2, analysis 20, assertion 2, atropin 3, bacilli 4, bacterial 2, bullet 4, capsules 2, chiropractor 3, chlorine 2, chlorinator 2, chronic 4, clinical 10, effluent 3, filtration 2, genealogy 2, hopeful 2, inception 2, intake 2, iodide 6, laboratories 2, oatmeal 4, oedema 2, organism 3, pathogenic 4, pollution 4, promoted 2, pumped 2, purification 7, retina 2, secreting 2, sentiment 2, sterilize 2, surgical 4, tubercle 6, valor 2.

    Bankers' words,-abandonment 2, borrower 2, cleared 2, collateral 8, declared 2, destruction 4, endorsed 3, overdraft 3, receivable 2, robber 3 .

    Farmers' words,-bout 4, hopping 2, laughing 2, oiler 3, petticoat 2, plume 4, prison 2, racing 5, reasonor 2.

    Automobile dealers' words,-batteries 12, blow-out 4, brushes 14, chamberlain 7, clincher 3, drudgery 2, folding 2, helpfulness 3, hub 4, insulation 2, lubrication 2, molded 2, pennant 2, pilot 5 , regulated 4, skid 3, softening 3, sorrel 2, speeded 4, starter 5, surrounded 4, training 2.

[^4]:    * Cook and O'Shea, The Child and his Spelling.

