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An Experiment in Spelling Using the Corrected Test Method

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**AN EXPERIMENT IN SPELLING USING
THE CORRECTED TEST METHOD**

by

Donald W. Beseler

**A study submitted in partial fulfillment of the requirements for the
degree of Master of Education in the Graduate School
of the Central Washington College of Education**

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APPROVED FOR THE GRADUATE FACULTY

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Chapter I

INTRODUCTION

The primary purpose of this study is to broaden the experiences of the writer's knowledge about the teaching of spelling and to measure the effects of the corrected test on spelling ability of seventh grade students.

Spelling may be defined definitely as a writing problem. The chief reason for learning to spell words properly is the necessity for correctly transmitting our thoughts into writing. This is of course, only one of the objectives which the subject is designed to attain. In all written work there is a situation which makes proper spelling a social necessity. Both in school and adult life accurate spelling is needed whenever thoughts are committed to writing. Accuracy in spelling tends to eliminate some of the obstacles in the path of written logical arrangements of ideas. The spelling of words which have become habitual allows for more intensive concentration upon the method of appropriate expression.

Spelling should be a means of developing within the child the traits which tend to constitute his personality. It may be argued that such ideals represent only the vain aspiration of an outdated theory of formal discipline. However, it cannot be denied that everything that a child does tends to modify in one form or another the responses that

he will make in the future. All school subjects can be made to produce objectives other than those specifically contained in the content. However such objectives can be provided for only through the proper motivation. Grupe¹ states that toward the end of the nineteenth century spelling was subordinate to other subject fields. It became a tool to learning, and non an end in itself. Educators today recognize this fact and have integrated spelling into the other subject fields.

Spelling has been considered one of the fundamental subjects of the curriculum for a long time, even though it has changed in both content and method of presentation along with other educational subjects. It has been the subject which has been used as a testing ground for the initiation of many new methods of teaching, the results of which are now widely used in other fields.

Spelling can be a means of helping to clarify word meanings and as a result promote written expression. As the student develops the ability to make distinctions in word meanings and as these distinctions become more familiar, the basis for expression with accuracy is also developed. Reading practice may serve to develop a large recognition vocabulary, but the capacity to write with proper expression can come only from practice in writing.

Although reading may provide the background of experience necessary for interpretation and reflective thinking, spelling should facilitate the expression of those ideas which

1. Grupe, Mary A. "A Review of the Pedagogical Studies in the Teaching of Spelling." Education Vol. 24, No. 1, Sept. 1913, 2.

are the result of experience and reflection. The ability to spell correctly not only minimizes the force of such factors as tend to inhibit expression, but it may serve the important purpose of enabling the individual to use the appropriate expression.¹

The need for the ability to express one's self clearly is not disputed. Therefore that part of the objective which is contributed by the mastery of spelling demands effective methods of instruction.

At the present time the curriculum of the elementary school provides for the direct attack on several thousand words. This number can be considered adequate for everyday needs, but it does not mean that any additional learning of words is undesirable. With today's objectives and methods we reasonably expect the student to develop a much larger spelling vocabulary. Our goal then becomes not the mere learning of the words of a prescribed list, but rather to develop the ability to learn to spell additional words as they are needed.

Another role of spelling in the curriculum is the development of a consciousness for correct spelling. Such an idea should be fostered in all aspects of education for the importance of accuracy is not restricted to spelling alone. The development of such a goal is difficult to attain with students when they are removed from the actual situations of life in which accuracy begins to assume such an important role. The problem may be approached through the same procedures which are used to

1. Foran, Thomas George. The Psychology and Teaching of Spelling. Washington, D. C.: The Catholic Education Press, 1934, 2.

show the importance of correctness in other forms of behavior. Every child is encouraged to develop an attitude of intolerance toward inaccuracies.

Accuracy in spelling is a specific objective of the subject. There are other objectives which may be developed through spelling. The teaching of spelling goes far beyond the development of the ability to spell a given number of words, to develop spelling techniques and to be satisfied with perfection in the spelling of the individual words.

Foran writes:

To consider spelling merely as a tool, merely as an activity which begins and ends with the learning of the words contained in the assignment, is so narrow a view of the subject as to suggest a misconception of its educative value.¹

Spelling along with other school subjects, has in its makeup the ability to promote some of the other modes of behavior necessary in the properly educated person. Personal confidence is such a mode of desirable behavior. No matter what form of instruction is used, sooner or later the individual must rely upon his own abilities, and these abilities can only be achieved through practice and voluntary activity.

Any school subject that tends to solve all the problems for the student or makes the student entirely dependent upon a teacher, can only afford the student with disappointment and failure. It must be the objective of the subject to develop self-reliance within the student

1. Foran, Thomas George. op. cit., 4.

rather than complete dependence on or independence of the methods of instruction. Neither extreme of instruction is desirable in obtaining the self-reliance objective. It would be possible to present the subject in such a way as to provide no challenges to the students, or to present it with so many challenges that they could not possibly all be met. Neither method of presentation is desirable in the promotion of self-reliance. The middle of the road method of presentation for spelling as well as other subjects is the only manner in which this trait can be developed.

Traits of self-reliance can be developed by aiding the students to overcome the stumbling blocks in the way of the development of good study habits. The students gradually become more self-reliant and dependent upon their own methods of studying and assistance on the part of the teacher can be withdrawn. As this assistance is being gradually withdrawn the students begin to rely more and more upon their own study habits to help them achieve success not only in spelling but in other difficulties which arise. Spelling or any other subject alone cannot develop this desirable trait. They are just vehicles in the promotion of growth and development which help to mold the personality of the individual.

Along with self-reliance, cooperation and self-direction must also be developed. They cannot be separated nor can one be developed without the other. The ability to solve one's own problems does not imply independence but rather dependence. A child that can successfully meet

these problems will also have the ability to accept or give assistance as needed. Therefore the method of teaching by which the teacher does all the work and the student merely acts as an audience for the teacher is by no means desirable. The attainment of such goals as self-reliance, cooperation and self-direction must be brought about through the methods of instruction which are based on sound educational psychology. These procedures must be a part of every subject including spelling. It would be folly to teach for word mastery alone and miss the opportunity to help develop these ideals and attitudes.

These are but a few of the objectives of a good program of instruction in spelling. However, it should not be construed that these supplementary objectives of the spelling curriculum can be achieved without special attention. The mere learning of spelling itself will not achieve these ideals but merely provides the opportunity for their development. In this regard Suzzallo says:

A quarter of a century ago the spelling period was given over to the mere hearing of spelling lessons. The teacher heard the children spell the words that had been assigned for mastery, and made the corrections as the errors occurred . . . Spelling was taught without much reference to its relation to the other subjects studied at school.¹

Methods of spelling instruction have the possibility of promoting, ignoring, or arresting the development of these modes of behavior. One does not have to search far to find spelling being taught with only the word

1. Suzzallo, Henry. The Teaching of Spelling. Boston: Houghton Mifflin Company, 1913, 16.

mastery objective apparent. Such instruction is difficult to justify in the light of modern curriculum objectives.

The approach to these many objectives is varied. Techniques for learning new words must be established through the procedures developed while learning the basic vocabulary. The child's method of learning will inevitably revert to the procedures learned in the past activities. These procedures must, if instruction is to be effective, be based upon the most efficient methods established through research. The indirect objectives of self-reliance, cooperation and self appraisal must be promoted through a form of instruction and motivation which is designed to promote not only spelling but also those forms of behavior called attitudes and ideals. Such objectives are important in the sense that they may tend to accelerate the learning process and produce an awareness of other productive forms of social achievement.

Horn¹ states that the most widely accepted objective for teaching spelling is to enable pupils to spell the words they need to write in life outside of school. To accomplish this objective close attention must be given to the selection of words to be studied. Words must be taught which will provide a basic writing vocabulary.

1. Horn, Ernest. "Spelling," Encyclopedia of Educational Research. New York: Macmillan Company, 1950, 1249.

Chapter II

SELECTION OF A SPELLING VOCABULARY

Every teacher has an earnest desire to teach her pupils to improve their ability to spell so that they may not be at a disadvantage when there is a need to write. Written communications determine a great deal of our life today, and an individual's ability to spell correctly may very well determine his vocational and social success. Automatic responses in spelling permit one to better concentrate on the wording of the thoughts to be expressed.

Many of the teachers in our schools today are confronted with the problem of a pupil who can master the list of words in the spelling lesson but cannot put down his ideas in everyday language. Teachers have observed this lack of coordination between words of the prescribed spelling list and the vocabularies used by the students in casual spelling correspondence and everyday conversation. They seem to lack the ability to spell the words they desire to use when they write. Teachers have also observed that words mastered during the spelling lesson are transitory in nature when needed in other school subjects. However, this may be the result of the teaching procedures employed. Teachers must teach for transfer in learning of the subject matter or its educational value is questionable.

If the effects of any item of schooling do not transfer . . . either to other items of schooling or to life situations . . . such an item is valueless. The absence of transfer in profitable amounts from pursuance of a course of study does not invalidate transfer but rather that course of study.¹

For a period of 150 years down to the present time the spelling vocabulary offered in our schools has been based predominantly upon words of adult literary usage. There are several reasons why the typical spelling vocabulary of American schools became so heavily weighted with words of adult usage. Noah Webster's "Blue Back Speller"² originally a word-pronunciation and oral reading book, was extensively used in pioneer schools. It established the pattern for the use of adult words in the spelling lists. Such words as plush, modish, scandal, nutriment and levity were commonly found in the early lessons.³ Words of this type took precedence over more commonly used words in the school lessons and as a result the spelling lessons took on the form of spelling contests.

Vestiges of this era of the "spelling contest" vocabulary still persist today in spelling lists containing words such as elucidate and

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1. Stroud, James B. Psychology In Education. New York: Longmans, Green and Company, 1946, 584.
 2. Parker, C. S. The History of Modern Elementary Education. Boston: Ginn and Company, 1912, 80-83.
 3. Hildreth, Gertrud. "An Evaluation of Spelling Word Lists and Vocabulary Studies." Elementary School Journal, January, 1951, Volume LI, No. 5, 254-265.

contemporaneous; words that are there merely because they are hard to spell, and not because they are frequently used by children or adults.¹

Until only recently the chief objective of teaching spelling was to develop all phases of written expression in preparation for adulthood. It was noted that many students often dropped out of school and consequently teachers were prompted to cram enough spelling into the elementary grades to last a lifetime.

Another widely accepted theory of that time was that a method of formal discipline was a basic method of learning. As a result the learning of difficult words was supposed to develop the mind as well as the spelling ability. Because of this trend in thinking, spelling became a disciplinary subject equal in importance to the study of grammar and mathematics.²

Many of the authors of spelling texts written in the past twenty-five years pay tribute to the Thorndike Word Book and the Horn Basic Writing Vocabulary as sources of material for the construction of their spelling lists. Hildreth³ states that because of the influence of these two works there has been a tendency to perpetuate the predominance of adult words in elementary school spelling lists. They are for the most part based wholly on formal adult correspondence and literary writing.

1. Ibid., 254 - 265.

2. Hildreth, Gertrude. Op. cit., 254 - 265.

3. Ibid., 254 - 265.

At about the turn of the century educators realized that there was a need to determine the most often used words in English writing. If these words could be identified the problem of selecting words for spelling lessons at the various maturity levels would be greatly simplified.

One of the first scientific word counts was conducted by Ayres.¹ The author made an attempt to determine a list of 2000 words most commonly used in literary writings and written correspondence. After listing 1000 of the most common words the investigation was stopped because it was found that there was such a wide variety of words which could be included in the second thousand even though the entire count was very extensive.

Thorndike² followed Ayres by conducting a word-count study of the Bible, English Classics, elementary school text books, books of occupations and trades, newspapers, and correspondence. The investigator listed 10,000 words most frequently found in the samplings. In 1931 the study was revised to include 20,000 words and in 1944 another 10,000 words were added to the original group. The lists did not include many of the derived forms and plurals of the words in the compilation. The

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1. Ayres, Leonard P. A Measuring Scale for Ability in Spelling. New York: Russell Sage Foundation, 1915.
 2. Thorndike, Edward L. The Teachers Word Book. New York: Bureau of Publications, Teachers College, Columbia University, 1921.

author made a statement in the introduction to the study that the list was not to be used as a spelling list; however, Hildreth¹ states that apparently the authors of many spelling texts failed to note the admonition and proceeded to use the list.

In 1926 Ernest Horn² also undertook a word-count study of five million running words taken from adult correspondence, minutes and records. All proper names, all words of less than four letters and a number of other words most frequent among the first hundred were omitted from the list. Even this word list has its shortcomings as a spelling guide, as the author himself noted: "It is probable that a disproportionate amount of material was sampled from the writings of persons at higher educational levels."³

Noting that the elementary school student actually has little need for adult words in his every day forms of written expression, it becomes apparent that more attention should be paid to the studies conducted on the vocabularies of children in their writings. The greatest difficulty lies in the selection of words which more closely corresponds to the maturity level of the student.

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1. Hildreth, Gertrude. Op. cit., 254-265.
 2. Horn, Ernest. A Basic Writing Vocabulary; 10,000 Words Most Commonly Used in Writing. Iowa City, Iowa; University of Iowa Monographs in Education, No. 4, 1926.
 3. Horn, Ernest. "Spelling." Encyclopedia of Educational Research. New York: Macmillan Company, 1950, 1249.

The first comprehensive study of children's writings was made by Jones¹ in 1913 in which the researcher attempted to find the most common words used by elementary students through a study of their compositions. About 15,000,000 running words from 75,000 compositions written by 1050 pupils were tabulated. A list was constructed containing 4532 words which were used by at least 2 percent of the pupils. The author had the children continue writing themes until no new words appeared. It is amazing that the investigator found only 4532 different words, but it must be remembered that only those words were tabulated which were used by at least 2 percent of the pupils. This fact must be kept in mind when other vocabulary studies are examined.

For example, in a study by McKee² conducted in 1924 in which 180 themes of sixth grade students were used comprising 18,958 running words, a total of 2,329 different words were found. The themes in this study were based upon a list of topics which were judged to be valuable experiences familiar to sixth grade students. By using this technique it was indicated that possibly previous theme investigations had not been successful in getting an adequate sampling of children's writing vocabulary.

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1. Jones, E. F. Concrete Investigations of the Materials of English Spelling. Vermillion South Dakota: University of South Dakota, 1913.
 2. McKee, Grace M. "Children's Themes as a Source of Spelling Vocabulary," Elementary School Journal, 25, 1924, 197-206.

Dolch¹ used another method to determine the writing vocabulary of children. The author had over 16,000 students write all the words they could think of in a specific time. The children wrote a total of 2,312,215 words of which there were over 12,000 different words. About one fourth of these appeared only once and were subsequently dropped from the grading. The remaining words were then compared with those found in fourteen other word studies and it was found that about a quarter of the 9,583 words of the list did not appear in any other compilation.

Another type of investigation was conducted by McKee² in which there were summarized many of the other studies conducted of children's writings. A reliable compilation could not be made on the basis of frequencies so the investigator attempted to find the most important words by taking only those that appeared in four of the five studies. In spite of the great number of running words, only 1475 words were found which were common to four of the five theme studies. From this it may be noted that there is a lack of agreement among early theme investigations. Because of the apparent lack of similar results, investigators turned toward other sources of children's writings for vocabularies.

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1. Dolch, Edward W. and Jones, W. F. "Grade Vocabularies," Journal of Educational Research, 16, 1927, 16-26.
 2. McKee, Grace M. Op. cit., 197.

Fitzgerald¹ collected 3,184 friendly letters written by students in the fourth, fifth and sixth grades. From these letters he tabulated 2,016 words appearing eight or more times. It should be noted that these letters were actual correspondence rather than themes written under the supervision of the teachers.

These studies have continued up to the present time. Probably the most extensive one was that conducted by Rinsland² in which an analysis was made of about six million running words. In order to make the sampling as complete as possible, children's writings from all sections of the United States were collected. Included were writings based upon personal notes, stories, poems, compositions in many school subjects, test papers from nontechnical subjects, articles for school papers that were not corrected by teachers, reports, etc. It was found that there was a total of 23,632 different words in the six million running words tabulated. They were in turn listed according to frequency and grade level.

From this the author was able to determine that the first 2,000 words used in Grade I made up a total of 98 percent of their total writing vocabulary. Whereas in Grade VIII the first 2,000 words

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1. Fitzgerald, James A. "The Vocabulary of Children's Letters Written in Life Outside of School," Elementary School Journal, 35, 1934, 358-370.
 2. Rinsland, H. D. A Basic Vocabulary of Elementary School Children. New York: Macmillan Company, 1945.

accounted for only 90 percent of their total writing vocabulary.

Throughout the whole investigation it is noted that there is a fairly consistant increase of percentage from the first 100 most used words in Grade I up to the first 2,000 words in Grade VIII. From this consistency it is apparent that his sampling must have been fairly uniform from grade to grade. There has probably been no other study which has so well established the approximate grade level where certain words most often appear. It has been a great aid in the determining of grade placements of words in the spelling lists.

Another form of investigation was conducted by Betts¹ in which all the words appearing in seventeen widely used spellers published up to 1940 were checked. The list contained a total of 8,645 different words with an average of 3,763 words per speller in Grades 2 through 8. The authors agreed on the inclusion of 543 words.

A second study by Betts² was a tabulation of all the words in eight widely used spellers published since 1940. Methods of tabulation in this study were similar to those used in the first investigation. In the second study a total of 8,652 words were found with an average of 3,719 in each series. In this study the authors agreed on only 483 words

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1. Betts, E. A., Spelling Vocabulary Study: Grade Placement of Words In Seventeen Spellors. New York: American Book Company, 1940.
 2. Betts, E. A. Second Vocabulary Study: Grade Placement of Words in Eight Recent Spellors. New York: American Book Company, 1949.

in the lists. Betts found that there is even less agreement on the words included in the upper grade spelling lists in books published since 1940 than there was before. The author states that there is an apparent over weighting of words with adult usages.

Results such as these may prompt teachers and curriculum makers to make a closer examination of the basic principles that underlie the development of spelling lists to be used in the first eight grades. Betts has summed up the problem in the form of two questions: "Are we to teach for remote future use from lists based on the cold storage principle? Or shall we teach from a child-use list more in harmony with principles of child growth and developmental learning?"¹

Evidence indicates that there are several reasons why child-use words are preferable in the spelling lists of the elementary school students. First, it is extremely difficult if not impossible to predict just which words among the 30,000 or so beyond the first 2,000 that a child will need to spell as an adult. Second, unless a large share of the time devoted to spelling is spent on child-use words, he will be at a disadvantage when attempting to do the written work required of him. The third reason is that within the child-use words the pupil has plenty of material for learning how to study a word so as to master it, and for helping himself to word analysis—all good preparations for learning to spell the words of the adult vocabulary.

1. Betts, E. A. Op. cit., 262.

Hildreth states:

All the essential spelling principles and habits can be learned by children through the instruction with familiar, common-use words. . . .Attempting to teach adult words or to teach prematurely, words unfamiliar to children is fatal to creating favorable attitudes toward spelling. Emphasis on a functional, child-use vocabulary in spelling tends to create good attitudes toward spelling lessons; the child gains a feeling of success because he has achieved results that are meaningful to him.¹

Ordinarily spelling receives little attention in the high school or college and also many children leave school even before they have completed their high school education. At this point educators may ask, and rightfully so, how can people learn the spelling vocabulary of adult usage if they are not given these words in the elementary school? This question is not easily answered, however, let us assume that it would be possible to establish a list including the 10,000 words most common to adult usage. Could it not be assumed that any person with an average degree of literacy would be able to spell many of these words through word analysis, logical reasoning and analogy gained through proper spelling instruction in the elementary grades?

Sifert² found a correlation of .94 between the abilities of pupils to spell studied and unstudied words. Apparently those whose

1. Hildreth, Gertrude. Op. cit.

2. Sifert, E. R. A Comparative Study of the Ability of Eighth Grade Children to Spell Studied and Unstudied Words. Unpublished Master's Thesis, University of Iowa, 1926.

abilities enabled them to learn the words they had been taught were able to spell additional words that they had not studied. Basically it is a condition of positive transfer from the word types previously studied. Since students do generalize their knowledge of spelling of words that have not been studied, it seems necessary to guide them in such a way that they will be able to spell words correctly and avoid mistakes. This is of course the question of methods of teaching. A great deal of spelling "know how" possessed by adults must be dependent upon the method of spelling instruction they receive in the elementary school.

Chapter III

COMMON METHODS OF TEACHING SPELLING

Incidental teaching of spelling has been the subject of a great deal of controversy for many years. Even before the turn of the century Rice¹ reasoned that the incidental teaching of spelling was just as effective as any systematic teaching in use at that time. Corman² and others also concurred with Rice in the effectiveness of the incidental method. Corman intimated that the teaching of spelling should consist for the most part of words taken from other school subjects as they appeared in the context and apart from formal instruction. This method proposed by Rice and Corman is now considered outmoded. Generally the evidence that was produced was based upon only a few students. The procedures for teaching, the words to be taught, and tests for measuring the effects of teaching had not been developed to their present state of efficiency.

The incidental method of teaching left the identity of the words to be taught up to the discretion of the individual teacher. Many

1. Rice, J. M. "The Futility of the Spelling Grind," Forum, 23, 163-172.

2. Corman, O. P. Spelling in the Elementary School. New York: Ginn and Company, 1902, 98.

words were taught which were difficult to spell but of little importance. This inclusion of unnecessary and difficult words could only lead to the exclusion of other words of greater importance to the students. Another objection to the incidental method is that the exact functions of teacher and grade levels lack definite limits and spelling becomes a very "hit or miss" method of achieving spelling efficiency. There have been many other criticisms of the incidental method even though a great many ramifications of the method have been tried.

Gates¹ conducted an experiment with two groups of first grade students to compare the systematic method of teaching against the "opportunistic" method. The two groups were made up of twenty-five students each with comparable intelligence, age, and other characteristics. In the systematic method the pupils followed a course of study that had been definitely predetermined. Daily lessons were prescribed, and accomplishment of the lessons was more strictly required. Those children that were in the opportunistic group had a less definite program of activities designed to satisfy the whims and interests of the students. The teacher of this group was to attempt to utilize the opportunities afforded by the students in their self-initiated desires to learn to read, write and spell.

Upon conclusion of this experiment, which lasted through the entire first grade, Gates administered a series of tests in different

1. Gates, Arthur I. "A Modern Systematic Versus an Opportunistic Method of Teaching," Teachers College Record, 27; 1926, 679-700.

subjects to both groups of students. He found the mean score in spelling for the class under the systematic method to be 8.9 points as compared to a score of 6.2 for the group using the opportunistic method.

Horn¹ and Wallin² concur with the finding of Gates and generally conclude that a systematic method of teaching spelling is needed for proficiency in spelling.

In spite of the evidence now available which favors a direct systematic attack upon the teaching of spelling it cannot be denied that a given amount of learning does take place through incidental learning. In this vein Horn relates:

Incidental learning should be supplemented by direct, systematic teaching especially in the case of difficult words. This systematic teaching should be planned to begin where incidental learning leaves off. Incidental learning does occur and should be fully utilized in connection with other curricular areas.³

The question may well be asked then "When should a formal systematic method of teaching spelling be introduced into the curriculum?"

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1. Horn, Ernest. "Spelling," Encyclopedia of Educational Research. New York: Macmillan Company, 1945, 1179.
 2. Wallin, J. E. W. "Has the Drill Become Obsolescent? A Preliminary Discussion, Particularly With Reference to Spelling," Journal of Educational Psychology, 1; 1910, 200-213.
 3. Horn, Ernest. Op. cit., p. 1254.

Russell¹ attempted to answer this question by determining the spelling readiness of students. The author conducted a study in which four first grade classes comprised of one hundred sixteen students were used. Two of the classes had been given considerable amounts of phonetics and the other classes had a program seldom using phonetics. The investigator gave them a series of tests by which he attempted to measure reading ability, letter recognition, visual perception, auditory perception and mental ability.

From this study the author concluded that spelling readiness seems to be acquired late during the first grade. The results of the study also showed that a program of phonetics produced better achievement in spelling than the program void of the phonetic approach and incidental in nature.

With the results of Gates, Horn, Wallin, and Russell clearly in mind it seems some organized systematic method of spelling instruction is needed which must be flexible in nature to provide for varying circumstances and conditions. However, a plodding methodical method of teaching spelling is just as ineffective as no method at all. But there are various methods and procedures which have proven to be useful in improving the spelling ability of students and these should be used as a means of increasing spelling knowledge. What then are some of the acceptable procedures? It might be well to review some of the studies conducted in this field.

1. Russell, D. H. "A Diagnostic Study of Spelling Readiness." Journal of Educational Research, 37; 1943, 276-283.

The main purpose of spelling instruction is to develop in students the ability to spell in the written vernacular. From this it may be deduced that probably the most effective means of teaching spelling would be in the context form rather than in the typical list or column method. A number of experiments show there is a significant loss between the teaching of spelling in the list or column method and the proficiency in spelling in composition. It has therefore been stressed that spelling be taught in the manner in which it is used in order to avoid the loss experienced between learning and application.

Winch¹ was the first to put to a test the context method of instruction. In his study he failed to note significant superiority of this method over the traditional list method.

Dolch² drew these conclusions from his experiment:

If children write words in a column, maximum attention may be given to the letters in the words and therefore the most favorable results may be secured. If the words are given exactly in the order in the book the children may use visualizing the page. . .

If sentences are dictated for the children to write, the tendency is toward lower scores because attention is to some extent drawn away from spelling.

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1. Winch, W. H. "Additional Researches on Learning to Spell." Journal of Educational Psychology, 7; 1916, 93-110.
 2. Dolch, Edward William. Better Spelling. Champaign, Illinois: The Garrard Press, 1942, 185.

In another study conducted by McKee¹ similar results were obtained. The author drew these implications from the experiment:

In the column-phrase experiment, pupils who used the column form secured results superior to those obtained by pupils who used the phrase form in the amount of spelling ability acquired during the learning period, and in ability to return words previously studied.

Others who investigated the efficiency of the context form of instruction were Hawley and Gallup.² In this study 1,100 children were tested in grades three through eight. The experiment lasted for thirty lessons with tests given at the end of each lesson. The scores for the two groups were initially the same. Those students that were taught by the list method achieved more in both list and context spelling than those that were taught by the context method. The chief conclusion was that there was no significant superiority in either method even when context spelling was the criterion upon which to base their results. They also concluded that if teachers are to have words written into sentences they must find in the method other values besides acquiring the ability to spell properly.

In spite of all the evidence available which seems to favor the list method with respect to the economy of time, we must not overlook

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1. McKee, Paul. "Teaching Spelling by Column and Context Forms," Journal of Educational Research, 15; 1927, 246-255.
 2. Hawley, W. E. and Gallup, J. "The List Versus Sentence Method of Teaching Spelling." Journal of Educational Research, 5; 1922, 306-310.

the merits of the context method. Teaching with this procedure certainly does have a place in the development of meaning vocabularies. Under ordinary circumstances the list method of teaching spelling is not completely void of contextual procedures. In the test-study-test, study-test-study, and learning-by-listening methods which will be discussed later, the procedure of word presentation is contextual in nature. Economy of time is the criterion which must be given every consideration when the emphasis of achievement in spelling is measured.

There are two methods of teaching spelling which are widely accepted in the schools today. They are known as the study-test and test-study methods, the first of which is more commonly used in the elementary grades and the latter is used predominately with the upper grades. Under the study-test method the pupils study all the words in the lesson and are then tested for their mastery of the work. The test-study method utilized the pre-test to determine which words in the list have been learned by the individual students by other means. After the pupils take the test they are required to study only those words that were missed on the pre-test. Each method has many variations, such as having several tests on each lesson. Even with these various modifications there is a distinct difference in the two methods and an evaluation of their possibilities and limitations is important.

It has been generally concluded that if the words to be presented are foreign to the students, such as in the case of the primary grades,

or if the class is retarded, or a group with a language handicap, the study-test method of instruction is most desirable.

There are many variations of this method but the basic characteristics of the study-test method are as follows:

Monday. The words are presented to the children, either by writing them on the board, or placing the list in the hands of the pupils. The teacher pronounces the words and the children repeat the words orally in unison. Children then practice writing the words.

Tuesday. The entire period is spent in the study of the words.

Wednesday. A test is given to determine which words need additional study. The teacher pronounces the word, uses it in a sentence, and pronounces it the second time. The children make no attempt to write the word until it has been repeated the second time.

Thursday. Entire period is spent by pupils in studying words misspelled on Wednesday's test.

Friday. Final test. The procedure is the same as that used for the test on Wednesday.¹

The other method of instruction commonly used in the upper grades also has many variations but the essential characteristics to the test-study method are these:

Monday. Words are presented to the pupils by writing them on the blackboard or by placing a list in the hands of each pupil. As the pupils observe the words the teacher pronounces each word and the students repronounce each one in unison. This is followed by a pre-test. The teacher pronounces each word, uses each word in a sentence and then pronounces it for a second time. At the second pronunciation the students write the word. The pupils correct their own papers as the teacher spells the word orally.

1. Rogers, Deer, and Gorden. Learn to Spell. New York: Rand McNally and Company, 1947.

Tuesday. The entire period is utilized in studying the words missed in the pre-test Monday.

Wednesday. On Wednesday a second test is administered in which all the children participate. The words are again corrected by the students, and the remaining time is used for study.

Thursday. The entire period is utilized in studying the words missed on Wednesday. Those children who made a perfect score on Wednesday are excused from studying on Thursday.

Friday. Each student participates in the final test. Each child corrects his paper as the teacher spells the words verbally. The teacher rechecks for accuracy of scores.¹

Since the instigation of these two methods many investigations have been conducted to determine the relative efficiency of each procedure. Outstanding qualifications have been claimed for each method under various conditions by different authorities, a few of which will be discussed.

Kilzer² conducted a study in which 777 students from thirty-four schools in eight states participated. Two lists of twenty-five words which had comparable frequency of occurrence and difficulty were used. Each list was alternated between the classes in each group in order to obtain an equivalence. The author did not furnish complete results of the experiment but from the information afforded it was observed that there was a distinct superiority in the test-study method. Results

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1. Louis, Richard. A Study of Spelling Growth in Two Different Teaching Procedures. Master's Thesis, Central Washington College of Education, 1950.
 2. Kilzer, L. R. "The Test-Study Versus the Study-Test Method in Teaching Spelling." School Review, 34; 1926, 521-525.

also indicated that the best spellers gained more from the test-study method than the poor spellers. On the delayed recall tests over the words given there was no significant difference between the two methods used.

Kingsley¹ experimented with a group of children in grades five through eight in two schools in Albany, New York, comparing the two methods. The investigator found that the class average of the group using the test-study method was considerably higher than the group using the study-test method. Ritter and Horn² reported an investigation in which it was shown that if the preliminary test is not given to help the child to locate his difficulties and he is therefore required to study each word of the lesson, there will be a waste of 75 percent of the time allotted to study.

Ogle³ stated that in light of available data, it seems best to hold to the idea that a pre-test should be used after the pupil has been introduced to the words of a new lesson and before he begins definite study of any word or words in the lesson. On the other hand, Dolch

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1. Kingsley, John H. "The Test-Study Method Versus the Study-Test Method in Spelling." Elementary School Journal, 24; No. 2, 126-129.
 2. Ritter, E. and Horn E. An Experiment in Individual Instruction in Spelling, Unpublished Study, College of Education, State University of Iowa, Iowa.
 3. Ogle, F. "Teaching Spelling in Rural Schools." Nation's Schools, 14 Dec., 1934, 21-23.

has expressed an opinion of this procedure in this manner: "There is a great doubt whether the pre-test does show real spelling knowledge as it is supposed to."¹ Keener² found the test-study method to be more efficient in grades four through eight and the study-test method better suited for the primary grades. The findings also show that the duller student made a better gain using the latter method.

Some educators have objected to the use of the preliminary test on the basis that if the child misspells a word on his first attempt the error is very likely to persist. Apparently this opinion is based upon the time-worn adage that first impressions are lasting impressions. This theory assumes that because of the initial error the child will more than likely continue to make the same error in future writings of the word. However, McKee claims "the resulting feeling of dissatisfaction at having missed the word, plus the concentrated attack on remedying the exact difficulty, more than outweigh any disadvantages rising from the initial misspelling."³ Horn concurred with McKee in the results of an experiment in which it was found that in a typical spelling class of

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1. Dolch, Edward William. Op. cit., 81.
 2. Keener, E. E. "Comparison of the Group and Individual Methods of Teaching Spelling." Journal of Educational Method, 6; September, 1926, 31-35.
 3. McKee, Paul. Language in the Elementary School. San Francisco: Houghton Mifflin Company, 1939, 389.

five periods a week, a negligible number of the errors made on the Monday test, if immediately corrected, will be duplicated on the Friday test.¹

Foran² lists what can be considered to be the advantages and disadvantages of the test-study method. The first advantage is that it saves time for many of the pupils. Second, the children will study with more purpose and motivation because of the possibility of being excused from future study if they can achieve a perfect score on the Wednesday test. A third advantage is that the children have a better chance to develop techniques for studying words independently.

The disadvantages the author listed are as follows: (1) The inability of a single test to show if the students really have the ability to spell the words of the lesson. (2) Pupils and teachers are likely to overlook errors in the pre-test. (3) The impressions obtained on the original writing of the word may be wrong and therefore have a tendency to persist. This assumed disadvantage is somewhat nullified by instructing the student not to write the word unless he is sure he can spell it properly. Evidence is meager to support these disadvantages and therefore they must be accepted as claims rather than facts.

1. Horn, Ernest. Op. cit.

2. Forna, Thomas George. The Psychology and Teaching of Spelling. Washington D. C.: The Catholic Education Press, 1934, 71.

Whereas research predominately favors the test-study procedure for the upper grades and the study-test method for the lower grades and backward groups, the final selection must be based upon the abilities and placement of the class. The teacher can best determine the class achievement by a preliminary test, constant observation, and testing of the group from time to time.

Another more recent method of spelling instruction which has not been widely accepted as yet is the "learning-by-listening" method. This method evolved through an investigation by Horn¹ in which an attempt was made to determine the effect of the corrected test on the development of spelling ability. The results indicated that the corrected test alone could account for 90 to 95 percent of all spelling achievement. This method of instruction put a great deal of emphasis upon the motor, visual, and auditory approach to learning.

There may be variations of this method but the essential characteristics of this method are:

On Monday, the students are given a test over the week's lesson without an opportunity of first seeing or studying the words. This is optional. The teacher pronounces the word, uses it in a sentence and then pronounces it again. On the second pronunciation the pupils write the word. After the entire list has been presented in this manner the students correct their own tests while the teacher spells the words for them. As soon as the tests have been corrected the whole procedure is repeated again. This same method is used on Monday, Wednesday, and Friday. No time is devoted to study on Tuesday and Thursday.

1. Horn, T. D. "The Effect of the Corrected Test on Learning to Spell." Elementary School Journal, 47; 1947, 277-285.

Louis¹ conducted an experiment in the fifth grade using fifty-six students divided into two classes with similar ability. The control group studied spelling using the test-study-test method five days each week. The experimental group used the learning-by-listening method of spelling only three days a week. At no time were they allowed to study the lesson in a strict sense of the word. As soon as the papers were corrected they were collected by the teacher allowing only that time for observation that it took to write and correct the papers.

Louis found that the corrected test alone provides mastery of the typical spelling lesson by the upper third of the class. Also there is less loss of time for the bright students when using the "learning-by-listening" method. It also develops a spelling consciousness which in turn makes for increased motivation. His final conclusion was that the recall value of the "learning-by-listening" method was equal to the test-study-test method.

From the preceeding discussion of the findings of various studies in methods of instruction it should be noted that there is no panacea for the teaching of spelling. Modern textbooks in spelling do not agree on the details of method in the teaching of the subject. Some authors recommend the use of certain procedures and others omit them. Other authors emphasize some ramifications of method while others make use of them to only a slight degree. The writer has not been able to find

1. Louis, Richard. Op. cit.

two modern spellers which provide for the same detailed method of teaching, equally stressing each item included. Methods of instruction are relative only to the extent of the final outcome, that is, to develop within the individual the ability to accurately transmit his thoughts to the written vernacular.

Superiority of one teaching method over another is not so much dependent upon its particular procedure as it is upon the subject to be taught and to the physical, mental, and social make-up of the students. Horn¹ states: "In the measure that method is dissociated from appropriate content or knowledge of pupil growth, education becomes shallow, formal or capricious." Methods then become subordinated to the characteristics of the learner and materials. They are to be used merely as tools to accomplish the relative end result, the accurate written expression of thoughts and ideals.

1. Horn, Ernest. "Methods of Instruction in the Social Studies." Report to the Commission on the Social Studies, Part XV. New York: Charles Scribner's Sons, 71.

Chapter IV

THE CORRECTED TEST METHOD

The teaching of spelling has not been developed to the extent that it is possible to select one teaching method as the panacea for spelling success. Authorities do agree that a direct attack on the teaching of spelling is by far the most efficient. Research has shown that the incidental method and the opportunistic method of instruction used alone do not lend themselves to the development of good spelling habits. However, the authorities do generally agree that the study-test-study method of instruction provides the best learning conditions for the primary grades, retarded groups and those groups that are having their first associations with the English language. On the other hand, the test-study-test method has been accepted as the procedure with the intermediate grades and the advance language groups.

The corrected test, a relatively new method of spelling instruction, does contribute a great deal to word mastery. On carefully conducted experiments a spelling achievement of 90 to 95 percent has been attained by this method alone. But neither does the corrected test technique provide the ultimate perfect method of instruction. It is, however, a stepping stone in the development of the scientific approach to spelling.

The corrected-test was used as the experimental procedure for this study. It included two sections of seventh grade pupils with a total of forty-one students in the two sections. The two sections were combined as one class for the purpose of the experiment. No attempt was made to select or segregate these students for the purpose of the testing period. They comprised two seventh grade home room groups that had been originally divided to be as nearly equal academically as possible. This experimental group was as nearly representative of the seventh grade class as could be obtained under ordinary circumstances. No statistical correlations or analysis of variance were completed for the study due to the small number of students (forty-one) participating in the experiment. It has been shown by previous research that a statistical significance does exist toward the corrected test method of instruction over the test-study-test.

The classes met together on Monday, Wednesday and Friday at 11:00 A. M. each week starting with the twenty-first week of school and continuing until the completion of the study seven weeks later.

An attempt was made to determine the amount of spelling growth that might take place through the corrected test method of instruction exclusively. This method employs for the most part the auditory and visual modes of learning. There were no systematic attempts made by the students to actually study the words outside or prior to the actual test situation.

Twenty-five new words were given the first week. Thereafter twenty new words plus five review words were presented for the next five weeks. This word list was taken from the Horn-Ashbaugh Spelling List for the seventh grade starting with the twenty-first week. The authors have standardized this list and calculated the mean scores. Hereafter in this study, this will be referred to as "standard right." The general procedure was as follows: On Monday the students were given the words of the week's lesson without seeing or studying the words. The experimenter pronounced each word, used the word in a sentence, and pronounced it again. On the second pronunciation of the word the students were instructed to write the word if they were reasonably sure of its spelling. If they were not reasonably sure of the spelling they were instructed to leave the space blank. Upon completion of the entire week's list the students corrected their own papers while the instructor spelled the words orally. As soon as the entire list had been corrected the students turned their papers over and the test was administered the second time using the same procedures. Any learning which took place was accomplished during the period of time that the instructor spelled the words orally, hence bringing into operation the auditory mode of learning. Upon completion of the correction of the retest the papers were collected immediately, thus affording no opportunity for the students to study the words outside of the test situation. This same procedure was followed on Wednesday and Friday using the same list of

words. The following weeks a new list of twenty words plus five review words was introduced and the same techniques were employed.

To start the investigation the author used the technique described above for one week in order to acquaint the students with the procedure which was to be employed during the actual experiment. Research has indicated that whenever a new method of instruction is introduced an orientation to the method is desirable. The results of this orientation week were not considered in the findings of the investigation.

Upon completion of each week's tests the raw scores were placed in a frequency table and the mean score for the group was computed.

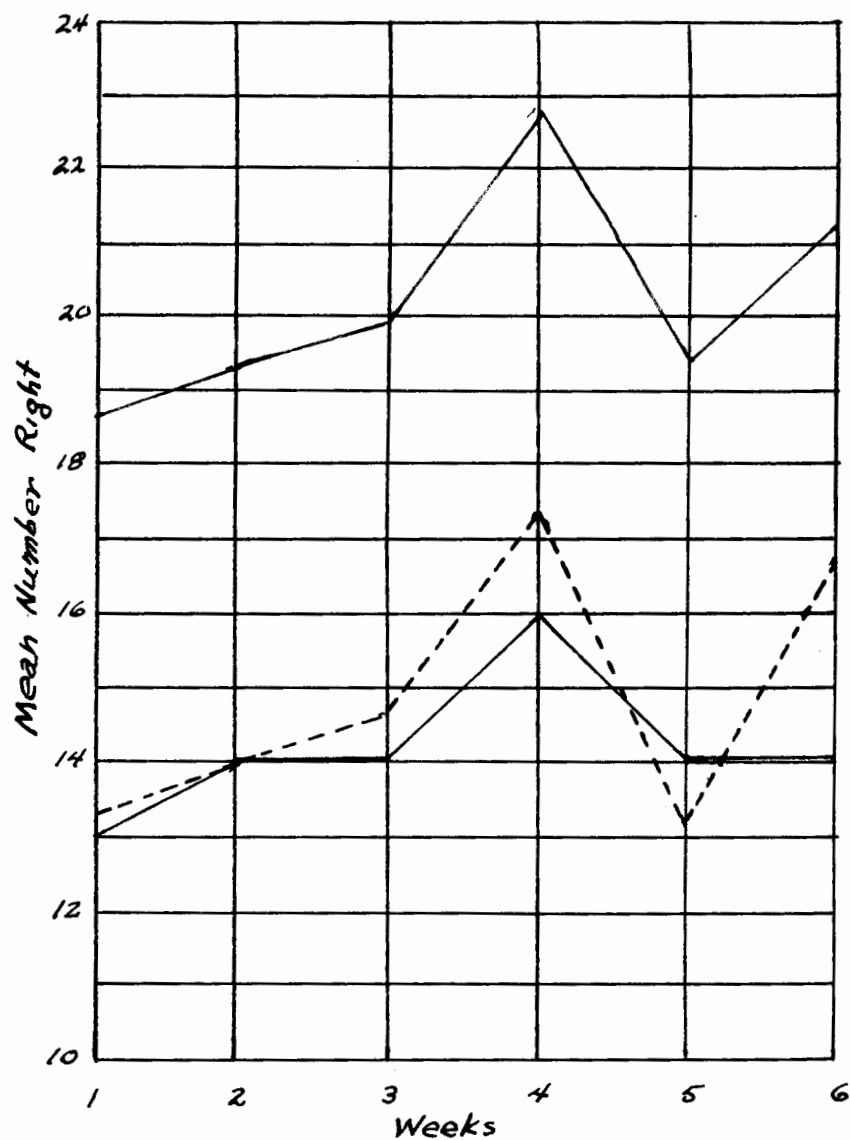
No statistical correlations or deviations were completed for the study due to the small number of students (forty-one) participating in the experiment. Previous research has shown that a statistical significance does exist in favor of the corrected test method of instruction. No attempt was made to determine the amount of spelling growth of the individual students. Spelling achievement was determined on a class basis.

After completion of six weeks of this teaching procedure, delayed recall tests were conducted to determine the amount of retention. Fifty words were used in the delayed recall test. The second, third, seventh, eighth, twelfth, thirteenth, seventeenth, and eighteenth words were taken from each week's list except the first where the twenty-second and twenty-third words were also used to make a total of fifty words. The same group of words was used on each recall test.

The results of the investigation were organized into tabular forms. The tables were constructed to show the scores made by the experimental group for each test conducted during the experimental six weeks. A table was also constructed to show the results of Monday's pretest mean score as compared to the "standard right" for each spelling lesson. Another table shows the results of the tenth day, twenty-first day, twenty-eighth day, and sixtieth day delayed recall tests.

Organization of the data in this manner made it possible to determine at a glance the significant factors concerning the study. The first and probably the most important was the amount of spelling growth made by the class from Monday's pretest to Friday's final recall test. The second significant factor is the result of the delayed recall tests.

Table I
Comparison Of Scores For Monday's
Results And Standard Right

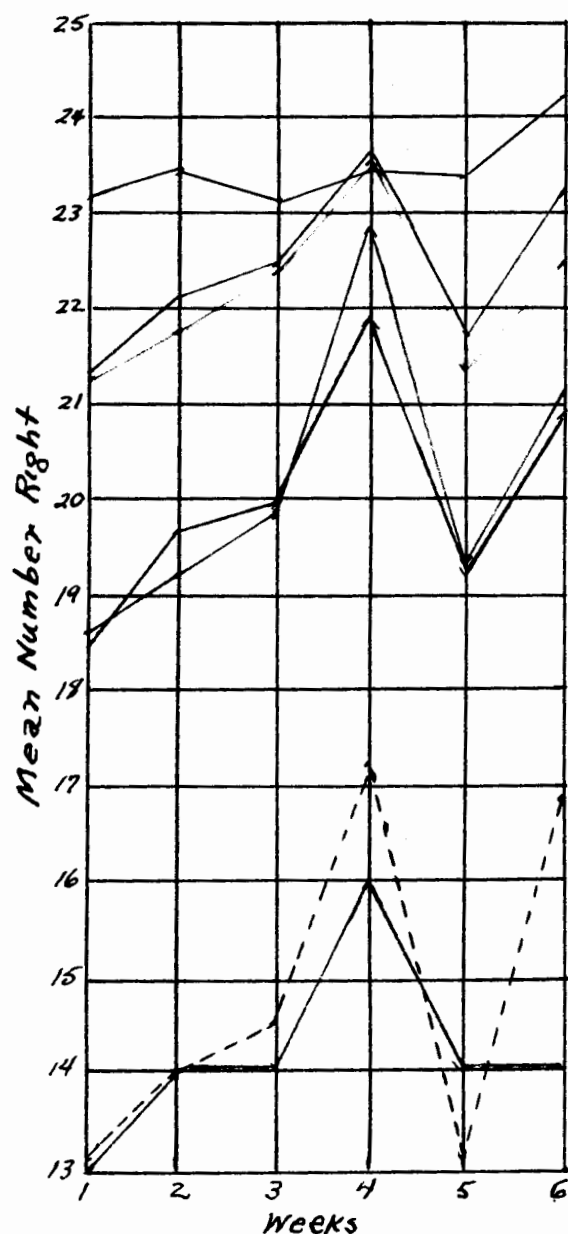


Standard Right	13	14	14	16	14	14	_____
Pretest	13.21	14.00	14.61	17.34	13.03	16.93	-----
Recall	18.71	19.20	19.93	22.95	19.39	21.14	_____

The following discussion pertains to Table I which was illustrated on page number 40. The results of Monday's pretest scores indicate that the students of the experimental group were above average in regard to spelling achievement prior to the investigation. Table I shows the "standard right" for each spelling list as compared to Monday's pretest and recall scores. On the first Monday the group attained a mean score of 13.21 as compared to 13.00 for the standard right. In the second week the group achieved a score of 14.00 which was identical to the "standard right". The third week the standard right was 14.00 as compared to a score of 14.61 for the group. A score of 17.34 was obtained by the group during the fourth week as compared to 16.00 for the spelling list. This represents a score of 1.34 points higher than as indicated for the standardization. Note that the only time that the test group did not achieve at least the standard score was during the fifth week when the standard right was 14.00 and the group attained a mean score of only 13.03. The last week of the study shows the experimental group with a pretest score of 16.93 as compared to 14.00—the standardization score. This represents a score 2.93 points higher than the standard right.

The reader will note the difference between the pretest and recall scores. In the first week there was a gain of 5.50 points from the pretest to the recall test. The gains for each succeeding week were 5.20, 5.32, 5.61, 6.36, and 4.21 points respectively. Thus indicating the excellent recall value of the corrected test.

Table II
Comparison Of Spelling Scores
For The Entire Testing Period



	MONDAY	WEDNESDAY	FRIDAY	STANDARD			
	PRETEST	RECALL	TEST	RECALL	RIGHT		
1	13.21	18.71	18.61	21.46	21.44	23.10	13
2	14.00	19.20	19.85	22.10	21.78	22.37	14
3	14.61	19.93	19.98	22.49	22.44	23.10	14
4	17.34	22.95	21.95	23.68	23.61	23.34	16
5	13.03	19.39	19.17	21.68	21.39	23.32	14
6	16.93	21.14	20.83	23.34	22.68	24.46	14

Standard Right ———

Monday Pretest - - - - -

Monday Recall ———

Wednesday Test ———

Wednesday Recall ———

Friday Test ———

Friday Recall ———

Table II, Comparison of Spelling Scores for the Entire Testing Period, shows the results of all the tests given during the six weeks of the experiment. From this table it may be noted the significant progressive gain from one test day to the next. In most instances there was an outstanding gain between each test and the recall test given on the same day. There was also a definite pattern established in regard to the mean scores of the recall tests and the test conducted on the following day of the experiment. This pattern definitely follows the "retention curve" as established by psychologists in previous experiments. It must be understood at this point that retention curves do not all have identical equations; however, they do follow a general pattern.

During the first week the score on the final recall test was 23.10 or a gain of 9.98 points over the first test given. In the second week the score of the final test was 23.37 as compared to 14.00 for the pretest score for that week. The third week the pretest score was 14.61 and the final recall test was 23.10. During the fourth week the class achieved a mean score of 23.34 on the final test, or a gain of 6.00 over the original test that week. However, it will be noted that the results of Wednesday's recall test produced a score (23.68) which was better than either of the scores attained on Friday's tests. The fifth week showed the greatest gain of the final recall test over Monday's pretest. A gain in the mean score of 10.29 words was achieved. The sixth week showed the highest score for the experimental period with a mean score of 24.46 out of a possible 25.00.

The average gain of the final recall tests over the original pretests was approximately 8.6 words again showing the possibilities of the corrected test method.

Table III
Mean Scores On The Delayed
Recall Tests Based On A
Sample Of Fifty Words

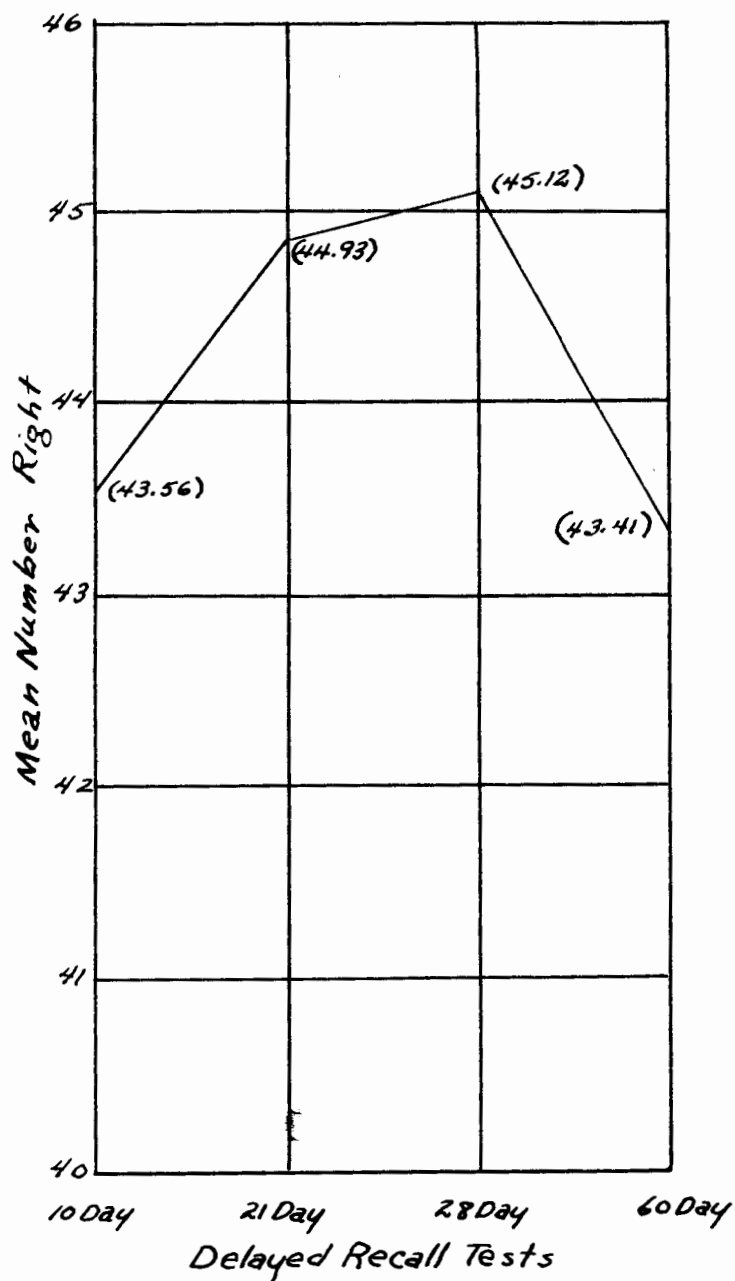


Table III, Mean Scores on the Delayed Recall Tests Based on a Sample of Fifty Words, portrays the results of the delayed recall tests conducted on the tenth, twenty-first, twenty-eighth and sixtieth days after the completion of the testing period. Fifty words were selected from the six weekly lessons and were used on all four recall tests. On the tenth day the mean score for the class was 43.56 indicating a high degree of retention of the words of the weekly lessons. On the twenty-first day the mean score was 44.93, a gain of 1.37 words, and on the twenty-eighth day the mean score was 45.12 or a gain of 1.56 words over the first recall test. On the sixtieth day recall test the mean score was 43.41 indicating a loss of 1.71 words from the highest score that occurred during the period of reminiscence.

Retention curves assume one of two possible forms. One type falls throughout its course, showing a decrease which appears at the first measurement taken and increases at a rate which may vary from rapid deceleration to zero acceleration. The other type shows a gradual rise for a period of time after the cessation of practice and then a deceleration. The curve shown on Table III represents the latter type. A retention curve of this type may be the result of distributed practice and the serial position of the words presented to the group; conditions which were present during the experimental period. Between the twenty-eighth day and the sixtieth day recall test the Ebbinghouse Retention Curve began to take effect.

Chapter V

SUMMARY AND CONCLUSIONS

Purpose of the Study

The purpose of this study was to broaden the experiences of the author's knowledge about the teaching of spelling and to measure the effects of the corrected test on spelling ability of seventh grade students. An experiment was conducted by which an attempt was made to determine the feasibility of the corrected test as a teaching method at the junior high school level. It was believed that by using this method of teaching spelling more information could be gained regarding the growth made by children in learning to spell the words needed for their social and occupational success. It may also provide a means of conducting spelling lessons in conjunction with other classes without being too time consuming.

The teaching of spelling has not been developed to the extent that it is possible to select one teaching method as the panacea for spelling success. Authorities do agree that a direct attack on the teaching of spelling is by far the most efficient. Research has shown that the incidental method and the opportunistic method of instruction used alone do not lend themselves to the development of good spelling habits. However the authorities do generally agree that the study-test method of instruction provides the best learning conditions for the primary grades,

retarded groups and those groups that are having their first associations with the English language. On the other hand the test-study method has been accepted as the proper procedure with the intermediate grades and the advanced language groups.

The corrected test, a relatively new method of spelling instruction, does contribute a great deal to word mastery. On carefully conducted experiments a spelling achievement of 90 to 95 percent has been attained by this method alone. But neither does the corrected test technique provide the ultimate perfect method of instruction. It is, however, a stepping stone in the development of the scientific approach to spelling.

Procedure

The corrected test was used as the experimental procedure for this study. It included two sections of seventh grade pupils with a total of forty-one students in the two sections. The two sections were combined as one class for the purpose of the experiment. No attempt was made to select or segregate these students for the purposes of the testing period. They comprised two seventh grade home room groups that had been originally divided to be as nearly equal academically as possible. This experimental group was as nearly representative of the seventh grade class as could be obtained under ordinary circumstances. No statistical correlations or analysis of variances were completed for the study due to the small number of students (forty-one) participating in the experiment.

It had been shown by previous research that there exists a statistical significance in favor of the corrected test method of instruction.

The classes met together on Monday, Wednesday, and Friday at 11:00 A. M. each week starting with the twenty-first week of school and continuing until the completion of the study seven weeks later.

An attempt was made to determine the amount of spelling growth that would take place using the corrected test method of instruction exclusively. This method employs for the most part the auditory and visual modes of learning. There were no systematic attempts made by the students to actually study the words outside of the test situation.

Twenty-five new words were given the first week. Thereafter twenty new words plus five review words were presented for the next five weeks. This word list was taken from the Horn-Ashbaugh Spelling List, copyrighted 1946, for grade seven starting with the twenty-first week. The authors had standardized the list and calculated the mean scores. Hereafter in this study this will be referred to as the "standard right". The general testing procedure was as follows: On Monday the students were given the words of the week's lesson without seeing or studying the words. The experimenter pronounced each word, used the word in a sentence and pronounced it again. On the second pronunciation of the word the students were instructed to write the word if they were reasonably sure of its proper spelling. If they were not sure of the spelling they were instructed to leave the space blank. Upon completion of the entire list the students corrected their

own papers while the instructor spelled the words orally. As soon as the entire list had been corrected the students turned their papers over and the test was administered the second time using the same procedures. Any learning which took place was accomplished during the period of time that the instructor spelled the words orally. Upon completion of the correction of the re-test the papers were collected immediately, thus affording no opportunity for the students to study the words of the lesson. This same procedure was followed on Wednesday and Friday using the same list of words. The following week a new list of twenty new words plus five review words was introduced and the same techniques were employed.

To start the investigation the author used the technique described above for one week so as to acquaint the students with the method which was employed during the actual experiment. Research has indicated that whenever a new method of instruction is introduced an orientation to the method is desirable. The results of this orientation week were not considered in the findings of the investigation.

Upon completion of each week's tests and raw scores were placed in a frequency table and the mean score for the group was computed.

No statistical correlations or deviations were completed for the study due to the small number of students (forty-one) participating in the experiment. Previous research has shown that a statistical significance does exist in favor of the corrected test method of

instruction. No attempt was made to determine the amount of spelling growth of the individual students. Spelling achievement was determined on a class basis.

After completion of six weeks of this experimental method, delayed recall tests were conducted to determine the amount of retention. Fifty words were used in the delayed recall test. The second, third, seventh, eighth, twelfth, thirteenth, seventeenth, and eighteenth words were taken from each week's list except the first where the twenty-second and twenty-third words were also used to make a total of fifty words. The same group of words was used on each recall test.

The results of the investigation were organized into tabular forms. These tables were constructed to show the scores made by the experimental group for each test conducted during the experimental six weeks. Tables were also constructed to show the results of Monday's pretest mean score as compared to the "standard right" for each spelling lesson. Another table shows the results of tenth day, twenty-first day, twenty-eighth day, and sixtieth day delayed recall tests.

Organization of the data in this manner made it possible to determine at a glance the significant factors concerning the study. The first and probably the most important was the amount of spelling growth made by the class from Monday's pretest to Friday's final recall test. The second significant factor is the result of the delayed recall tests.

Conclusions

The results of the study indicate that the students of the experimental group were above average in regard to the spelling achievement prior to the investigation. Table I, Comparison of Scores for Monday's Results and Standard Right, shows the "standard right" for each spelling list as compared to Monday's pretest and recall scores. It was noted that the only time that the test group did not achieve at least the standard score was during the fifth week when the standard right was 14.00 and the group obtained a mean score of only 13.03.

Table II, Comparison of Spelling Scores for the Entire Testing Period, shows the results of all the tests given during the six weeks of the experiment. From this table it may be noted the significant progressive gain from one test day to the next. In most instances there was an outstanding gain between each test and the recall test given on the same day. There was also a definite pattern established in regard to the mean scores of the recall tests and the test conducted on the following day of the experiment. This pattern definitely follows the "retention curve" as established by psychologists in previous experiments.

In the final results of the fourth week the mean score of the recall test was slightly less than the pretest given on that day. However in all other cases definite progress was recorded. The table also indicated that the greatest amount of learning took place during the first two days of each week. At the end of the second day the students

were apparently reaching the optimum of their spelling efficiency, because on the third day of the testing the amount of achievement was not as great as on the first two days.

Table III, Mean Scores on the Delayed Recall Tests Based on a Sample of Fifty Words, portrays the results of the delayed recall tests conducted on the tenth, twenty-first, twenty-eighth and sixtieth days after the completion of the testing period. Fifty words were selected from the six weekly lessons and were used on all four recall tests. On the tenth day the mean score for the class was 43.56 indicating a high degree of retention of the words of the weekly lessons. On the twenty-first day the mean score was 44.93, a gain of 1.37 words, and on the twenty-eighth day the mean score was 45.12 or a gain of 1.56 words over the first recall test. On the sixtieth day recall test the mean score was 43.41 indicating a loss of 1.71 words from the highest score that occurred during the period of reminiscence.

Retention curves assume one of two possible forms. One type falls throughout its course, showing a decrease which appears at the first measurement taken and increases at a rate which may vary from rapid deceleration to zero acceleration. The other type shows a gradual rise for a period of time after the cessation of practice and then a deceleration. The curve shown on Table III represents the latter type. A retention curve of this type may be the result of distributed practice and the serial position of the words presented to the group; conditions which were present during the experimental period.

Between the twenty-eighth day and the sixtieth day recall test the Ebbinghaus Retention Curve began to take effect.

The retention value of the corrected test is very well represented by the results of the delayed recall tests conducted after the experimental period.

Limitations

- A. Only six weeks were devoted to the study.
- B. Only forty-one students participated in the investigations.
- C. No statistical evidence was computed in regard to the individual's achievement.
- D. Some of the students in the class had previous experience with the corrected test method.

Educational Implications and Recommendations

- A. A high degree of spelling accuracy can be achieved by using only the corrected test method of instruction.
- B. Spelling drill at the seventh grade level may be very time consuming.
- C. There is less loss of time for the general run of students when using the corrected test method.
- D. The corrected test alone is sufficient for the near mastery of the typical spelling lesson.
- E. The students seemed to prefer this method of spelling instruction.
- F. Three spelling periods a week is sufficient time for adequate achievement of a list of twenty words.

- G. The students develop a keen sense of spelling consciousness which increases motivation.
- H. The recall value of the corrected test method is great enough to warrant its use in the classroom.
- I. Students realize that no time will be provided for studying the spelling list and as a result there is more concentrated effort at the time that the lesson is given.
- J. Students tend to develop their visual, auditory, and motor reflexes.
- K. Students and teachers should become familiar with the possibilities of the corrected test method.
- L. This method should not be used exclusively, but rather in conjunction with other teaching methods. Some time should be spent on vocabulary study.
- M. The number of spelling periods can be reduced from five to three times a week.
- N. Those students who achieve perfect scores on Wednesday recall tests might be excused from the test period on Friday.
- O. The poorer students of the class should be given additional supervised study time on the spelling list.
- P. This method should not be used extensively until the student has established basic study habits.

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