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Word usage techniques in spelling

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WORD USAGE TECHNIQUES IN SPELLING

by

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CHAPTER I

STATEMENT OF PROBLEM AND REVIEW OF LITERATURE

1. Introduction

This study is concerned with the evaluation of word usage lessons to improve transfer of words they have learned in spelling to written language situations.

The purpose of the study is to determine:

1. The ability of the pupils to transfer the spelling words to written language situations after practice in using these words in a variety of meaningful situations
2. The ability of the pupils to spell accurately the words studied when they have been stimulated to use them in written language situations.
3. The ability of the children to learn to spell the derived forms of the spelling words as they had the opportunity to use them in written language exercises
4. The ability of the children to increase their knowledge of meanings of spelling words through written usage.

The plan of the study was to stimulate the fifth grade pupils to use the spelling words or their derived forms in a variety of controlled written language exercises.

2. Justification of the Study

"Spelling is an inseparable part of written language," states Strickland ^{1/}, "and the spelling of the words must conform to common practice if written material is to be read with ease and the assurance of correct interpretation. The major objective of spelling instruction is to enable children to write what they want and need to write."

With this understanding of spelling instruction as a needed tool for writing, a simple but thorough experiment was carried on in Staunton, Illinois. ^{2/} The educators felt the need to reevaluate the work being done in spelling. For three and a half years a standard series of workbook spellers was used with typically good results. The superintendent questioned the function and devised a testing program.

^{1/} Strickland, Ruth C., The Language Arts in the Elementary School, D.C. Heath and Company, Boston, 1951.

^{2/} Curtis, H.A., and Dolch, E.W., "Do Spelling Books Teach Spelling?" Elementary School Journal 39:584-592

A spelling list of seventy words was made up from each book from grades two to seven, and eighty words from grade eight, totaling five hundred words. The children were tested on ten tests of fifty words each, with seven words from each grade two through eight on each test. Testing was done each Friday for ten consecutive weeks and records were kept. Computations were made on three areas: 1, average percent of correct spellings by each grade of words studied in the books; 2, average percent of the correct spellings of the words studied previous to the past twelve months; and 3, the average percent of correct spellings of the words not yet studied.

Results showed three things: "1.) Most of the learning of spelling seems to be done before the year of teaching or after that year 2.) The good spellers do most of the learning of spelling without teaching while the poor spellers apparently need the teaching and even more teaching than is given to them 3.) Certain easy words, rather than all words, are learned without teaching by the good spellers. Hard words are not even learned through teaching by the good spellers.

At least this investigation points out that it is not entirely satisfactory merely to buy a good spelling

book and carefully to follow its directions. One solution is the adoption of a language arts program. Such a program gives attention to words primarily as tools of thought and expression, but it brings in, at appropriate points, attention to word forms and to ways of learning word forms and thus encourages the continual, natural learning of spelling." ^{1/}

Gunderson ^{2/} has expressed the need for change in spelling methods as she states, "The handwriting on the wall indicates that all is not well with the spelling situation in the schools. It seems evident that the plan of teaching lists of words, as schools have been doing for generations is not an effective way of teaching spelling or the criticism would not be heard that the children who go through the schools have not developed the ability to spell correctly the words needed in their writing."

In pursuing this belief, an experiment was carried on substituting free writing for visual spelling lessons. Answers were sought to the following questions:

^{1/} Ibid

^{2/} Gunderson, Agnes G., "Writing Vocabularies of Seven Year Olds," Elementary School Journal. 43:590-596, 1944.

1. How can the school effectively help a child learn to spell words?
2. What correlation is there between vocabulary used by a child in his free writing and the vocabulary of his text book in spelling?

She concluded: 1, that the spelling book would not have served the writing needs of the children; 2, that writing vocabularies are not general but individual; 3, that writing aids in developing a spelling conscience.

The question of the spelling proficiency of our pupils today has long been discussed both pro and con. A comparative study was conducted in West Illinois ^{1/} in 1945. The Buckingham List was given to 926 pupils representing each grade. In the entire set, marks ranged from 0-100 on three papers. It was found that there may be a place for a speller stressing fewer words, but more key words which he will meet in his writing needs for everyday life.

In the Cassis School Report, Horn and Otto ^{2/} have

^{1/} Stifferd, Calvin S., "A Survey of Spelling Ability", Elementary School Journal. 47:340-346, 1947.

^{2/} Horn, Thomas, and Otto, Henry, A Curriculum Wide Approach by the Cassis School Faculty, University of Texas, Austin, Texas, 1954.

said that a child becomes interested in learning to spell because he wants to write something. However, before he can write, he must have something to say. This functional type of writing has as its purpose, the development of favorable attitudes toward proficiency in written work and toward accuracy in spelling.

Parke^{1/} makes the statement that "classroom practice lags far behind the recommendations of research workers. Most children need practical motivation. In the field of spelling, children must see a life need; a practical use for a skill into which they are expected to put continued effort and to achieve complete accuracy." The teacher must be alert to language situations in which the child may use his spelling as this provides motivation to spell accurately.

The psychological principle which states that whatever is to be learned should be introduced in a meaningful situation is now accepted as a well established principle in education. To be truly effective, learning must be meaningful. This principle had definite application in the case of spelling

^{1/} Parke, Margaret, "A New Look at Spelling," Elementary English, 32:101-109, February, 1955.

instruction, where meaning of words must be understood before the child can use this spelling word in his written language.

"If a child does not know or understand the word, he will not use it in his written or his oral language." ^{1/} says Johnson.

Parke ^{2/} states that "there is a strong public demand for better spelling. A vast amount of research is available to assist educators in meeting this demand. However progress should be made particularly in teaching spelling in closer relation to written expression and with due consideration to each child's background in speech and reading."

Realizing the close relationship between spelling success and vocabulary knowledge, Spache ^{3/} pointed out in a summary of a recent study that a "low meaning vocabulary is more likely to cause spelling disability

^{1/} Johnson, Eleanor M., "Two Key Factors Which Influence Success in Spelling," Education Magazine, 76:271-4, January, 1956.

^{2/} Parke, Margaret, op. cit.

^{3/} Spache, George, "Spelling Disability Correlates-Casual Factors in Spelling Disability," Journal of Educational Research, 34:561-586, April, 1941.

than low reading ability." Every opportunity should be presented to the child so that he may increase his understanding in order that he will be able to use this word in written language.

The research in the field of spelling has been largely in the areas of phonics in the teaching of spelling, phonograms, visual memory, vocabulary, and generalizing. Although there is little research in the area of transfer to the written language situations, the authorities point out continually the importance of transfer. Hatchett and Hughes ^{1/} make the emphatic statement that "the supreme test of spelling is the use of words in the essential writing in school and outside the school. Success in spelling is not determined by the percentage of words which children spell correctly from the established word list, but how well they spell whenever they write."

Spelling achievement has been low in schools where the subject has been taught in isolation. Long lists of words have been memorized and soon forgotten. Herrick

^{1/} Hatchett, Ethel L., and Hughes, Donald H., Teaching the Language Arts in the Elementary Schools, Ronald Press Co.: New York, 1956. p. 258

and Jacobs ^{1/} state further that unless spelling is recognized as a worthwhile activity in life, it will not be of much concern to the child, and therefore will not be learned.

Hunnicuttt ^{2/} has made the statement that "spelling must be integrated with other subjects in the curriculum in order that there may be an emphasis on meaning and correct usage, and a practical application of the proficiency acquired through the regular spelling period." Spelling in the spelling time alone is not sufficient.

The pupil who can learn the words of the week with perfect accuracy, "but cannot spell the words he needs in order to express his ideas in everyday language," is a phenomenon which is perplexing many teachers states Hildreth. ^{3/} This child is not fulfilling the needs of

^{1/} Herrick, Virgil E., and Jacobs, Leland B., Children and the Language Arts, Prentice Hall, Inc., Englewood Cliffs, 1955.

^{2/} Hunnicutt, C.W., and Iverson, W.J., (Editors), Research in the Three R's, Harper and Brothers, New York, 1958.

^{3/} Hildreth, Gertrude, Teaching Spelling, Henry Holt and Company, New York, 1955.

spelling which has its application in the written material.

This area of transfer of spelling words to written language is endorsed by authorities in the field with little research available on how to make this transfer. It is a recognized fact that the written language skill is handicapped by difficulty in spelling for many children. "Language is one of the most unpopular subjects," states Crossley ^{1/}, "Written language rates lower than the oral skills.... There are multiple examples of all kinds of research in spelling, but few have been planned so that we may discover ways of motivating the pupils to write to increase their organization skill in written language or to stimulate the flow of ideas."

3. Review of Literature

Opinions expressed by professional writers on the purpose of spelling.-- The ability to spell has become an essential aspect of written expression as it eases the task of putting ideas down on paper.

^{1/} Crossley, Alice B., "Can We Help Children to Write?" Journal of Education, Boston University School of Education, 139:No. 3, 1957.

Fernald ^{1/} has stated that language should be related directly to the teaching of spelling. The children learn to spell better when they have a deep interest in actually writing something which requires these words. The meanings of the words must be known before the child can use them. Spelling becomes a "vital tool" when it is associated with the idea of writing something that expresses thoughts and ideas.

In the opinion of Cole ^{2/}, "There is nothing simple about expressing oneself in writing." In order to produce the written language activities which the child feels the need of and wants to write, several basic skills and attitudes must be coordinated in the school program. Brogan and Fox ^{3/} state that the two very necessary skills to be developed in the written language program are the ability to express ideas and the ability to spell correctly the words needed. This

^{1/} Fernald, Grace, Diagnostic and Remedial Work in the Basic Skills, McGraw-Hill, New York, 1943.

^{2/} Cole, Louella, Psychology of the Elementary School Subjects, Farrar and Rinehart, New York, 1934.

^{3/} Brogan, James, and Fox, R., Helping Children Learn, World Book Co., 1955.

direct relationship of ability to spell and expressions of ideas is to be developed and fostered in the spelling and language program. "Spelling will not transfer to writing, that is, words will not be written correctly, if in practice they are not seen or used in context, and if systematic instruction is not given in spelling to write."

Fernald ^{1/} feels that it is essential to written communication that the students have the power to interpret words, use them, and spell them accurately. Writing is enhanced by the knowledge of words, as the writer uses the words meaningfully to convey his message. Children need guidance in learning to spell the words accurately as well as to know their uses in written language.

The functional aspect of spelling has been emphasized by Hildreth ^{2/} as she states that "spelling is a sort of draft horse of written expression. The ideas to be expressed may be impelling, the language expression of

^{1/} Fernald, Grace, op. cit.

^{2/} Hildreth, Gertrude, op. cit. p.

the best, but without the vehicle of spelling the load of work in spelling cannot be easily done."

Fitzgerald ^{1/} stated that this new philosophy makes spelling a part of life, a skill which if properly mastered facilitates written expression and makes living much more pleasant and adequate. Children must learn to spell the words which they need in order to express themselves with clarity in situations which call for meaning.

"Spelling is difficult for children to learn when it becomes an academic subject without a recognized purpose to those who are learning," states Hildreth ^{2/}, she feels also that lists cannot be used rigidly as this causes a wide disparity between practice and ways in which these words are used in writing. The individual needs can be discovered and met more effectively in context writing. Teaching children to express their ideas in writing and to find satisfaction in doing so is a continuing aim of schooling at all levels.

^{1/} Fitzgerald, James, Learning to Spell, University of the State of New York, Albany, 1949.

^{2/} Hildreth, Gertrude, "Spelling as a Language Tool," Elementary School Journal, 48:33-40, 1947.

Teachers today recognize that the major objective of spelling is to make the spelling words function in written language situation. This need to write has become an inseparable part of the written language program. "Every occasion which calls for written expression constitutes a spelling lesson," is the manner in which Fitzgerald ^{1/} has expressed it.

Horn and Otto ^{2/} stated that "success in spelling is not determined alone by the percentage of words that the children spell correctly from a word list, but also how well they spell whenever they write."

The lack of understanding in the past.-- The study of spelling has real value to the extent that the program incorporates the expression of ideas and the accuracy of spelling. The words learned are the words that the child will use in the future to carry on the everyday affairs of life. "This simple truth which is so widely accepted today was little understood in the past," states Hildreth. ^{3/}

^{1/} Fitzgerald, James, op. cit.

^{2/} Horn, Thomas, and Otto, H., op. cit.

^{3/} Hildreth, Gertrude H., op. cit.

The limitations of the old traditional methods of the teaching of spelling are well known now. Noah Webster's Blue Back Speller was the text, with its long lists of difficult and unusual words. Oral drills with "mechanical glibness" in the constant repetition and the "spelling bee" were popular practices for these long lists of words. The lists were justified on the theory that formal discipline and the transfer of training were to be gained by the pupils as they were confronted by these hard words.

Horace Mann questioned these techniques as he doubted the transfer to the written language, since so much stress had been placed on the oral rote type of practice. The difficult and unheard of words of the word lists bore no relation to what the children needed in their writing. These lists were adhered to so rigidly by the schoolmaster that there was no opportunity to bring in any words which were needed.

The futility of these traditional methods aroused the interest of research workers who realized that the practice in spelling did not yield the results which could be expected in proportion to the time and effort spent during the school day. ^{1/}

^{1/} Hildreth, Gertrude, op. cit.

Horn ^{1/} discovered that the schools which devoted little time to formal training in spelling were accomplishing as much as those schools carrying on the long formal periods of training.

In an investigation to determine children's needs for spelling, Richmond ^{2/} found that the results achieved in the teaching of spelling have not been satisfactory when measured by the effectiveness with which children spell in situations calling for written expression. She aimed to discover the spelling needs of the sixth grade and to suggest procedures for teaching spelling. She suggested that the functional approach to spelling requires that opportunities should be provided for writing in natural situations, and that instruction of this skill be individualized.

Parke ^{3/} predicts rapid improvement in the skill of spelling as the demand from the public is strong. This

^{1/} Horn, Ernest, "Principles of Method in Teaching Spelling" Yearbook of National Society for Study of Education, 1919.

^{2/} Richmond, Annie, "Children's Spelling Needs and Implications for Research," Elementary English, 33:500-05, December, 1956.

^{3/} Parke, Margaret, op.cit.

progress should be made particularly in "teaching spelling in closer relation to written expression and with due consideration to the background in speech and reading."

The importance of meaning vocabulary in spelling.--

Meaning was found to be a very important factor in the success of children in learning to spell words.

Associating the word to the meaning helps to make an impression upon the child. The problem is to provide experiences which make the words a part of the life of the child. ^{1/}

Durrell ^{2/} has stated that words whose meanings are unknown to the child should not be included in the spelling lesson. Even drills which enrich word meanings and the word recognition skills will not insure the later use of the words. It seemed advisable to avoid the teaching of the words that the children have neither the desire nor the ability to use.

^{1/} Almack and Staffleback, "Related Factors in Spelling Methods," Elementary School Journal, 34:273-85, December, 1933.

^{2/} Durrell, Donald D., Improving Basic Reading Abilities, World Book Company, 1940. P. 268

In considering the problem of words which the child wants to use, Cole^{1/}, has said that if the child is going to use writing to express his ideas, he should be able to spell nine out of ten words that he wants to use. Otherwise there is so much concentration on how to spell the words that he forgets what he is trying to say.

Wallin^{2/} reported that the appearance of new words in meaningful situations and sequences adds a new "associate to further the process of recall, namely the element of meaning. Meaning content will tend to suggest the spelling form because form is often deliberately associated with meaning. The meaning of the sentence will aid in supplying the meaning of a given word, and this in turn will receive its proper spelling."

Meanings are likely to enlarge and to become more comprehensive as the child makes further contacts with the term in different contexts. The words which the children use in their functional writing have a depth of meaning for them. This provides an apparent reason

^{1/} Cole, Louella, op. cit.

^{2/} Wallin, Wallace J.E., "Spelling Efficiency in Relation to Age, Grade, Sex, and the Question of Transfer," Educational Psychology Monographs, Warwick and York, Inc., Baltimore, 1911.

for learning, and these words make the spelling process much easier. ^{1/}

Johnson ^{2/} predicts that growth in meaningful vocabulary will take place on all the language fronts "as children develop multiple meanings as they use these words. Utilizing childrens' interests will enrich the language program and keep all phases of language advancing together.

In her study of experimental methods, Zyve ^{3/} reported on a study of words solely from the lists compared with the writing of words in sentences during study list context method. In the "study of words from lists," the children studied entirely apart from context with the testing done as "list testing."

In the "list-context method", the children wrote the words missed in his own sentences. The teacher dictated the words in sentences. The words were studied in isolation on one day and written in sentences

^{1/} Jersild, Arthur T., Child Psychology, Prentice-Hall, Inc., New York, 1940.

^{2/} Johnson, Eleanor M., "Two Key Factors in Spelling Success," Education, 46:272-76, January, 1956.

^{3/} Zyve, Claire, "An Experimental Study of Methods," Contributions to Education, No. 466, Bureau of Publications, Teachers' College, Columbia University, New York, 1931.

on two other days.

The use of sentences as an element in method when combined with the use of lists gave better results than the single use of lists alone.

In summary of 148 case studies with implications for possible causes of spelling disability, Spache ^{1/} concluded "vocabulary knowledge is a more significant determinant of spelling success than intelligence, particularly in the first five grades....a low meaning vocabulary is more likely to be a cause of spelling difficulty than a low reading ability.

If a child uses in written expression the words he is learning to spell, he will master spelling more quickly. The more opportunities the child has for writing items of interest to him, the more readily he learns to spell. ^{2/}

The meaning must be firmly established in the mind of the pupil, and Dolch ^{3/} feels that "the words

^{1/} Spache, George, "Spelling Disability," Journal of Education Research, 34:561-86, April, 1941.

^{2/} Johnson, Eleanor M., "Two Key Factors in Spelling," Education, 76:271-276, January, 1956.

^{3/} Dolch, Edward W., Better Spelling, The Garrard Press, Champaign, Illinois, 1942.

should be used in sentences. The meaning should be explained in familiar terms, and correct usage should be checked." Teaching the meanings of words lessens the difficulty of learning to spell and therefore is worthy of its use.

Morphett and Washburne ^{1/} state that it is desirable that children should know the meanings of words. The training of children to spell words when meanings are not known is absurd.

"Spelling deals with a limited number of the most useful words in the language," says Ross. ^{2/} To achieve permanent spelling ability, it is necessary for children to absorb each of these words as a whole into his vocabulary. This means more than merely giving attention to the order of letters within a word. It means making the word a permanent part of the child's endowment for expression. It means providing these opportunities for using each word to express real meaning.

^{1/} Morphett, M.V. and Washburne, C., "A Sample Technique for Determining Whether Children Know the Meaning of Spelling Words," Journal of Educational Research, 19:196-200, 1929.

^{2/} Ross, Charles S., "Using Words as an Approach to Language Spelling and Child Growth," The Resourceful Teacher, Silver Burdett Co., New York, Vol. 5, No.1.

Holmes ^{1/} expresses the opinion that incidental meaningful use of a new word by the teacher is not sufficient for learning to establish new meanings. Attention should be drawn to the meaning, and the need to use it meaningfully in speech and writing should be felt.

Exploring new meaning of known words and being led to discover new meanings of unknown words will provide an added experience in spelling and using words in meaningful situations, states Billington ^{2/}, as she too emphasizes meaning.

McKee ^{3/}, who has worked extensively in language, has expressed the statement "in writing one must be able to spell the words, if he performs the activity successfully. Thus, because spelling presents such an important need in writing, it does not present such an important difficulty in other activities. The selection

^{1/} Holmes, Eleanor, "Vocabulary Instruction and Reading," Elementary English Review, Vol. XI, 103-5¹, 1934

^{2/} Billington, Lillian E., "Spelling and Child Growth," The Resourceful Teacher, Silver Burdett Co., New York, Vol. V, No. 1.

^{3/} McKee, Paul, Language in the Elementary School, Houghton-Mifflin Co., New York, 1939.

of words which elementary school pupils should be taught to spell is limited to the vocabulary used in writing activities of life." ^{1/}

In 1918 Hollingsworth ^{2/} reported that although children can spell correctly many words which they cannot define or use, and vice-versa, knowledge of word meaning was probably an important factor in spelling. She selected 15 children of average ability in most subjects, but low in spelling. While the group was too small to make the findings significant, it was found that 66 2/3 % of the group had more misspelled words when they did not know the meaning.

In their functional writing, the children use the words which have meanings for them. Hatchett and Hughes ^{3/} have stated that this provides an apparent reason for learning to spell these words and make the learning process much easier. In having a depth of understanding of the meaning of words, the children

^{1/} McKee, Paul, op. cit. p.

^{2/} Hollingsworth, Leta S., The Psychology of Special Disability in Spelling, Contribution to Education, Teachers' College, Columbia University, New York, 1918, No. 88.

^{3/} Hatchett, E.L., and Hughes, D., op. cit.

learn to spell the words more easily and know the value of learning to spell words correctly.

Horn ^{1/} is of the opinion that whenever the most common meanings of a word are not known, the meaning should be developed by the teacher. These meanings may be made clear by oral explanation and illustrations, and by the use of the dictionary plus enrichment exercises which show many uses of the word.

Research in transfer of spelling words to the written language.

There is very little research on the transfer of spelling words to written language. The statements of the authorities point out very definitely that spelling is taught as a language related skill which serves the child's purposes in written expression both in and out of school. Spelling is to be learned as a functional tool for written work. However, the actual research on this is scarce.

While the study was conducted back in 1902,

^{1/} Horn, Ernest, "Spelling," Encyclopedia of Educational Research, Macmillan Co., New York, 125-6, 1955.

Cornman ^{1/} tried the experiment of teaching spelling as an integrated study in two elementary schools in Philadelphia. At the end of three years, results were studied by means of composition tests. Spelling was fully as good as before, when it was taught in isolated drill periods.

Tyler ^{2/} reported that sixth grade pupils doing "spelling to write" did more extensive written work and learned more spelling than those having conventional content subject teaching.

In an experiment of first and second grade classes conducted by Howland ^{3/} each child learned to spell the words needed in writing. Individual drill was provided. In fifty per cent of the cases, the pupils learned from two to five times as many words as by the formal method ordinarily used in these grades, and the learning was

^{1/} Cornman, Oliver P., Spelling in the Elementary School: An Experimental and Statistical Investigation, Ginn and Co., 1902.

^{2/} Tyler, Keith I., "Spelling as Secondary Learning," Teachers' College Contributions to Education, No. 781. Bureau of Publications, Teachers' College, Columbia University, 1939.

^{3/} Howland, Helen, "A New Procedure in Teaching Language," Elementary English Review, 13:90-93, 1936.

accomplished with less drill.

While Cates ^{1/} did not work with spelling words she did try to determine the relationship between two types of tests on children's written vocabulary. It was found that children were able to recognize approximately four times as many words as they recall. Recall tests predict only slightly more than recognition tests, the length and quality of written vocabulary.

In the opinion of Watts ^{2/} it is very clear that "the vocabularies at the command of children for the purpose of writing must be larger than those which serve for every day speech. In writing, many words flow readily from the pen which do not come trippingly from the tongue."

Herrick and Howell ^{3/} investigated the important problem of increasing the maturity of children's

^{1/} Cates, Margaret A., Relationship between Two Tests on Children's Written Vocabulary, Unpublished Master's Thesis. Boston University, Boston, Mass., 1957.

^{2/} Watts, A.F., The Language and Mental Development of Children, (An Essay in Educational Psychology), Geo. Harrop and Company, Ltd., 1944.

^{3/} Herrick, Virgil E., and Howell, Miriam, "Growth in the Maturity of Writing Vocabularies of Primary and Middle-Grade Children," The Elementary School Journal, University of Chicago Press, 53:338-44, February, 1954.

writing vocabularies. They compared the words used by 25 seven year old children in directed and independent writing over five months of the second grade with the words that Fitzgerald ^{1/} listed as words used by fourth, fifth, and sixth graders in social and business letters written out of school.

The 25 second grade children used 1,539 different words in their directed and independent writing over a period of five months. When compared with the 7,442 different words on the Fitzgerald ^{2/} list, it was found that 1,331, or 86 per cent of the words used by the seven year olds, were among the 7,442 words used by the children whose ages ranged from eight to twelve years or older. "Maturity in vocabulary beyond the gross gains in the number of words seems to be more intimately associated with an increase of quality of use. Here, three ideas of what constitutes quality seemed to be used; 1) an increase in number of meanings a given word

^{1/} Fitzgerald, James H., "The Vocabulary, Spelling Errors, and Situations of Fourth, Fifth, and Sixth Grade Children's Letters Written outside the School." Unpublished Doctor's Dissertation, University of Iowa, 1931.

^{2/} Ibid

is used to convey; 2) an increase in the precision with which a word is used; and 3) the extent to which fewer words are used to convey a meaning formerly conveyed by many words." 1/

In determining the implications for the teachers, it was suggested that 1.) children should have a wealth of experiences which will create the desire for self expression; 2.) children should be helped in refining the meanings of the words they already use; 3.) that children should be encouraged to use words on the margin of comprehension; 4.) that children should be helped in writing clearly; 5.) that children should be helped to develop not only prosaic but also poetic vocabulary; 6.) that children should keep a notebook; 7.) and that children should be helped with words which give them trouble in spelling.

In a study of the evaluation of the effectiveness of spelling enrichment exercises as an aid to learning, and retention in the eighth grade, Catteral 2/ planned procedure of the control group to be the study-test-study

1/ Herrick and Howell, op. cit.

2/ Catteral, Margaret, Evaluation of the Effectiveness of Spelling Enrichment Exercises as an Aid to Learning and Retention in Grade VIII, Unpublished Master's Thesis. Boston University, Boston, Mass., 1957.

plan. The experimental group followed the same plan with twelve enrichment exercises added three times a week for four weeks. In these exercises, the pupils placed words in correct categories. The critical ratio of 5.014 made the difference statistically significant in favor of the experimental group.

Jones ^{1/} conducted an investigation to evaluate a method for improving personal description and characterization in written composition. The method emphasized thought content and aimed to have the pupils learn to observe and express in concrete vocabulary personal description. Teaching these exercises for a period of seven weeks in the ninth grade, 106 children participated in the experiment. It was found that there was a significant gain in vocabulary. An implication of the study is that in the consideration of vocabulary growth, techniques that direct the growth toward discussion of particular problems will probably produce significant growth in many areas of composition.

"Learning to write, spell, and to put language down on paper in conventional form, occupy a considerable

^{1/} Jones, Mary M., Evaluation of a Method for Improving Personal Description and Characterization in Written Composition, Unpublished Doctoral Dissertation, Boston University, Boston, Mass., 1947.

portion of time of the elementary school years," says Strickland. ^{1/} While it is undoubtedly true that any skill as intricate and exacting as these requires a great deal of practice for mastery, consensus is growing that functional learning is more economical and has greater value than meaningless practice on isolated skills. There must be content of some kind if skills are to be acquired in form for use. Consequently, teachers are emphasizing increasingly the interrelationships between content and skills.

Organization of class for spelling.--Grouping has become an accepted and commonplace procedure in reading, but has not been put to use in the teaching of spelling. Yet it is "logical to group children for learning to spell because spelling abilities are so clearly distinguishable." ^{2/}

Scott ^{3/} recognizes the uniformity of the spelling of words. However, she feels that individualization must come through the "uses one makes of spelling, the words to be used, the thoughts to be written, and such means as can be applied for most nearly meeting the spelling

^{1/} Strickland, Ruth, op. cit.

^{2/} Hatchett, E.L., and Hughes, D., op. cit.

^{3/} Scott, Mildred, op. cit.

needs of the persons, young or old, as individuals."

The attitude of the pupils toward spelling is considered by Herrick and Jacobs. ^{1/} A spelling conscience must be developed where the pupil feels the desire to spell correctly all words which are used in writing. Then too, a spelling conscience must be developed which is a judgment concerning the correctness of the spelling words used in writing."

Hildreth ^{2/} has expressed the feeling that the proper attitude toward spelling will be developed when the children actually see the purpose in what they are doing. Interest will then be insured.

^{1/} Herrick, V.E., and Jacobs, L.B., op. cit.

^{2/}Hildreth, Gertrude, op. cit.

CHAPTER II

CONSTRUCTION OF MATERIALS IN THE TRANSFER OF SPELLING TO WRITTEN LANGUAGE

This study was designed to stimulate the use of spelling words through a variety of controlled written language situations on the fifth grade level. It was planned so that the following might be determined:

1. The ability of children to transfer the spelling words to written language situations
2. The ability of the children to learn to spell more accurately the assigned spelling words when they have been stimulated to use them in written language situations
3. The ability of the children to learn to spell the derived forms of the spelling words as they are needed in written language exercises
4. The ability of children to increase their understanding of meanings of spelling words through written usage

To carry out the plans of this study in transfer of the spelling words to written language, the following materials were developed:

1. Word Usage Exercises
2. Reference Sheets
3. Spelling Logs

1. The Exercises

The word usage exercises were written with the following criteria:

1. The exercises should provide opportunities for the spelling words to be called to mind and then used in written language situations.

2. The exercises should be of high interest to the pupils so that they will be motivated to write.

3. The exercises should make the spelling words an active writing vocabulary with guidance on the use of some words and complete freedom on the use of other words.

4. The exercises should be written using spelling words from an established spelling list suitable to the level of the children. The regular textbook, Word Mastery Speller^{1/} was selected as the source for these words.

1/ David H. Patton, Word Mastery Speller, C.E. Merrill Co. 1951

5. The exercises should encourage the use of all the derived forms of the spelling words as the pupils might need the derivatives to make the language of the sentences correct.

6. The exercises should use the spelling words of the month so that the 72 new words were available for this written language work.

Spelling vocabulary to be taught.--There were 18 new words to be taught each week which totaled 72 new words for the month. Since the words were blocked off by the month, there were 72 words to be used in the exercises of the first month, and 72 words for the second month's exercises.

The words to be taught the first month and the second month are listed alphabetically as follows:

WORDS OF FIRST MONTH

already	level	rush
although	likely	scarce
attend	manner	seventeen
automobile	million	seventh
bold	muddy	shone
bother	narrow	simple
broad	necessary	someone
capture	opposite	steep
county	pasture	straight
debt	patch	surely
destroy	pavement	thief
discover	payment	title
flight	possible	twenty-five
following	power	understand
habit	problem	unknown
handsome	promise	unless
helpful	public	useful
highway	quickly	wagon
however	rather	whistle
hurried	recent	whom
jewel	record	willing
laughter	repair	worm
leader	respect	worse
length	robber	wreck

WORDS FOR SECOND MONTH

36

acre	inspect	satisfy
area	lower	scene
assist	lumber	selfish
attempt	moment	shown
bucket	motion	slept
column	nearest	source
complete	neither	speech
cork	offend	stump
damage	omitted	succeed
deal	paddle	supply
eager	pilot	support
enclose	plain	swept
enemy	prevent	tower
envy	property	topic
example	pump	trace
failure	punish	trust
fierce	purpose	valley
fright	reduce	valuable
furniture	regret	value
general	repeat	variety
goal	request	waste
greatest	result	wealth
guilty	safety	weed
important	sample	worry

2. Determining the Interest of the Pupils

To initiate this study in spelling transfer, several different topics of interest in a variety of types of lessons were used by the writer in a trial run. Three fifth grades which included 96 pupils took part in this trial run. Before the word usage exercises were developed, the opinions of the pupils were sought through a preference sheet.

The preference sheet aimed to obtain the opinions of the pupils on two phases, the types of exercises which they would most enjoy doing and the topics of interest about which they might like to write.

The spelling transfer lessons were then written, based on the findings in this study.

In organizing the preference sheet, the first section was written to discover the types of exercises the children would rate as excellent, good, or poor. The second section aimed to find the topics about which the children were interested in writing.

The following directions were given to guide the pupils in recording their opinions on eight lessons:

You have tried many kinds of exercises using the spelling words. Read the exercises below carefully, and decide which ones you liked best.

If you liked the exercise very much, put a beside Excellent.

If you liked it only fairly well, put a beside Good.

If you did not like it at all, put a beside Poor.

Examples of the description of the exercises to the students follow:

1. Three Can Make One!

Can you use the words in the group below to make one sentence?

Remember three words are to be used in making just one sentence.

(plan	(angry	(lively
(collect	(single	(parade
(refuse	(policeman	(arrive

Check one:

Excellent _____ Good _____ Poor _____

2. Word Photography

Have you ever seen an exciting ballgame? Have you ever been to a colorful circus?

You can tell others about this if you use your "mind camera" and take word pictures in good phrases.

You might give a word picture of a bold robbery with these phrases:

a daring thief

crept quietly to the safe

in broad daylight

Can you use your mind camera and describe an exciting race using the spelling words?

Excellent _____ Good _____ Poor _____

3. Extra! Headlines needed!

The stories are ready to go to press! The news is written, but where are the headlines? Can you be the editor and give these stories the headlines which will make people want to read? Use any spelling word in the headline.

Excellent _____ Good _____ Poor _____

The complete preference inventory may be found in the Appendix.

Findings of the interest inventory -- The children gave their preference to the four types of exercises selected for use in this study.

The use of three words to make a sentence proved to be the most popular, with 75 expressing their choice for this type of exercise as being excellent.

Sixty-three selected as excellent writing sentences about famous people.

Fifty chose as excellent the phrases which described their feelings in an imaginary situation.

Forty-eight pupils considered as excellent the rewriting of sentences.

The preference for topics was differentiated as to choices of girls and boys. The boys expressed their desire to write about these people:

1. a big leaguer
2. a famous person
3. someone in history
4. the forest ranger
5. a carpenter

The girls expressed their desire to write about the following people:

1. a TV star
2. a movie star

3. a famous person
4. someone in history
5. another girl or boy

The sports selected as popular subjects were:

1. baseball
2. football
3. hockey
4. swimming (strongly voted for by the girls)

Of the 96 pupils questioned, 80 said they liked to pretend, so that pretending was included in the word usage exercises.

The topics for writing which were selected by these pupils included:

1. the circus
2. a trip to Mars
3. an exciting game
4. a visit to another land
5. life in the country
6. events at school

The writer tried to incorporate the above topics in developing the word usage exercises.

3. The Construction of the Exercises

Types of exercises.---In developing these written language exercises, 4 different types were devised. Each type would have 3 lessons in the first month which would be presented on the 3 days devoted to these exercises; Tuesday, Wednesday, and Thursday. The same plan was repeated in the second month, presenting three lessons of each of the 4 types in the second month.

Each exercise was given a letter which designated the week; thus, A was the first week; B, the second week; C, the third week; D, the fourth, etc. The number denoted which lesson it was in the week; first, second, or third. Therefore, A_1 was the first lesson of the first week; A_2 , the second lesson, etc.

The following chart shows the order and the types of word usage exercises. The specific lessons, lettered and numbered, may be found in the Appendix.

Week	Days on which Exercises Were Used			TYPE OF EXERCISE
	Tues.	Wed.	Thurs.	
First	A ₁	A ₂	A ₃	The writing of sentences using three or more words suggested in a group (or the derived forms of these words.)
Second	B ₁	B ₂	B ₃	The writing of sentences using suggested spelling words (or their derived forms) to answer certain questions, or to give reactions to certain topics.
Third	C ₁	C ₂	C ₃	The writing of descriptive phrases using suggested spelling words (or derived forms) to describe people, places, or activities.
Fourth	D ₁	D ₂	D ₃	The completion of sentences and the writing of sentences using spelling words to replace certain words which mean the same or about the same.
Fifth	E ₁	E ₂	E ₃	Same as First Week
Sixth	F ₁	F ₂	F ₃	Same as Second Week
Seventh	G ₁	G ₂	G ₃	Same as Third Week
Eighth	H ₁	H ₂	H ₃	Same as Fourth Week

On the chart, it may be noted that Exercises A and E were organized to develop the same skill; B and F had similar plans, as well as C and G, and D and H.

Types A, B, C, and D used the words of the first month; E, F, G, and H used the words of the second month.

The chart indicates that the exercises were presented on three days; Tuesday, Wednesday, and Thursday. The words of the week were introduced on Monday and tested on Friday. This plan of procedure is described in Chapter 3.

Description of specific types of exercises.--In Lessons A and E, the first exercise was planned so that the pupils wrote a sentence using selected spelling words which had been grouped together. The team discussed how these words might be used in a sentence, and all the pupils in the team wrote the sentences. As an introduction to the exercises, the pupils were given the following directions:

"This exercise is called 'Three Can Make One'. That would sound very strange if you were doing arithmetic. However, in these exercises in spelling, it means that three words can be used to make one sentence.

For example, if the three words were:

{	quickly	
{	thief	the sentence might be:
{	jewel	

"The thief stole the jewel and dashed quickly down the street."

Another sentence might be:

"Quickly the thief cut away the glass and reached in for the precious jewel."

You may change the endings of the spelling words if this is necessary to make the sentence correct. For example, you might want to say:

"The thief saw the tray of jewels and shouted, "Quick, Tom!"

An s was added to the word jewel and the ly was dropped from quickly.

You may use any form of the word which is needed in the sentence. All forms will be found on your reference sheet. Be sure to check the spelling there.

Listed below are the groups of three words which are to be used in making a sentence.

With the members of your team, use the three words in a group to make one sentence. Underline the spelling words! Everyone think! Everyone share ideas! Everyone write!

- | | | |
|---------------|-------------|-----------|
| 1. (necessary | 2. (already | 3. (steep |
| (repair | (capture | (narrow |
| (highway | (robber | (wagon |

The pupils working in teams of three wrote their sentences in which they underlined the spelling words which they had used from the group. This exercise was used in the first week using the words of the first month and again in the fifth week with the words of the second month.

In the fifth week, the pupils were given an exercise in which the groups of words had increased to four. The same procedure was followed with the children composing sentences which used the four words.

- Sample:
- | | | |
|---------------|-----------|-----------|
| 1. (furniture | 2. (slept | 3. (acre |
| (neither | (prevent | (eager |
| (sample | (damage | (greatest |
| (valuable | (property | (enclose |

Lessons B and F.-- In the second type, the pupils were stimulated to write sentences which answered questions or gave opinions about special topics such as; television, baseball, scouting, highway patrol, forest ranger, and others. Beside each topic was a list of spelling words which might be used in the sentences. The pupils were not restricted to the words listed, but could use any word of the month which could be located easily on the reference sheet. Thus, the words in the suggested list, plus any word of the month, could be used. All spelling words or their derivatives were underlined by the pupils, so that it was easy to check the accuracy of the spelling words used.

In introducing this type of exercise, a letter was presented which was supposed to have been written by a boy in Hungary. He was one of the many refugees who had come to live in America and so wanted to know many things about the people. The pupils were directed to answer some of the questions in his letter using the words which had been suggested in the list in the right-hand column.

The letter, which introduced this exercise, was as follows:

Dear Americans:

I have come to your wonderful country to start a new life without fear. I know you lucky Americans live

in a democracy where everyone has the opportunity to worship as he wishes and to work at the kind of job he chooses. You have many kinds of workers, doing many interesting kinds of work. Can you describe the work of these people that I will be seeing soon?

The following are samples of the questions; the words suggested to be used in answering the question are listed in the column on the right.

1. Who is a cab driver? What does he do?

Words

following

already

willing

highway

payment

automobile

manner

quickly

public

whistle

2. Who is a big leaguer? What does he do?

Words

although

bold

power

record

The structure of the exercises varied. In one type, the topic was written with spaces underneath for the writing of the sentences. Below the spaces, were the suggested spelling words.

Sample:

Topic: The Circus

Wagon	laughter	opposite	willing
worse	simple	steep	rather
although	narrow	rush	possible

Another type of format had the spelling word to be used listed in Column I; the topic about which to write in Column II; and the space for this sentence provided in Column III.

A sample of this type follows:

<u>Column I</u> Word	<u>Column II</u> Topic on Which To Write	<u>Column III</u> Sentence
1. prevent	Police	1. The robbery was <u>pre-vented</u> by the alert policeman.
2. paddle	Travel	2. _____ _____

- | | | |
|-----------|-------------|----------|
| 3. regret | Report Card | 3. _____ |
| 4. fierce | Jungle | 4. _____ |

Lessons C and G.--The third type of exercise instructed the pupils to write phrases which would:

1. have the pupils use their imaginations in answering the question, "What if?"
2. describe their feelings about imaginary situations.
3. describe their reactions to certain famous people.

The introduction to the phrase writing asked the students to pretend. The following directions were given in introducing this type of lesson:

Have you ever been so afraid that you seemed to shiver and shake?

Have you ever been so surprised that your eyes seem to pop?

How did you feel

deep

down

inside?

Let's pretend that you are walking down the street when suddenly you were swallowed by the earth! Down you went! You were on a coal chute going down, down, on a dark frightening ride!

Using the words from the spelling list (or their derived forms), you might describe how you felt with the following phrases:

You might be: down in a narrow place.

destroyed by coal.

heading straight into trouble.

ready to whistle for help.

on a swift flight.

a complete wreck.

Can you add to this list of phrases to tell how YOU might have felt? Underline the words from the spelling list which you use. Be sure you use a phrase which describes your feeling.

Using the words from your spelling list, write phrases to tell how you might feel and what you might do IF----

1. IF you were walking down a dark, dreary road, and suddenly saw a white figure floating before you, which looked very much like a ghost, you might

2. What would you do if you were given your report card by your teacher, and on it were all A's?

I would _____

3. What would you do if you were digging in your backyard and suddenly you discovered a hidden treasure?

I would _____

Phrases were written also to describe certain people, as Ted Williams, cowboys, bold pirates, magicians. The pupils wrote phrases using the spelling words to describe their reactions to these people.

Sample:

1. Which words can be used in phrases which will describe Ted Williams?

Ted Williams was--swift on the bases
powerful at the bat
disrespectful to the crowd

In answering such imaginary questions as, "What would

you have Mickey Mouse do on one of his adventures in the jungle?", the phrases written were action phrases. Each phrase had one or more of the spelling words of the month included in the writing.

Example:

I would have Mickey Mouse---
sweep from tree to tree in smooth motion
 carry a bucket of water to a fierce lion
 run swiftly from the big cat

Phrase writing was used in Lessons C and G of the third and seventh week of the experiment.

Lessons D and H.--In the fourth type of exercise, the students became "cub reporters" who completed sentences about certain topics, and rewrote sentences with the spelling words available plus their derived forms.

The following samples were included in this section for the fourth and eighth weeks as exercises D and H:

Sample 1

The exercises for this week are called, "Say it in another way." Sentences are listed below with words underlined. Select one of the words from the reference sheet which means the same or about the same as the underlined. Rewrite the whole sentence with the words from the reference sheet underlined. You may not need to look the word up. If you know the word immediately, write it.

Example: The concrete covering was certainly in need of fixing.

Rewrite: The pavement was surely in need of repair.

Sample 2

Could you be a good newspaper reporter? A reporter must learn to take a topic and write a good sentence about it. This must be a sentence which will make the reader eager to read on. Using the words listed below, answer the questions the editor has assigned to you. Underline each spelling word used.

Example: What do you think happened when the hunter went on a lion hunt?

Suggested Words:

worry	regret	greatest	supply
attempt	safety	fierce	valuable

The hunter fought the greatest and fiercest animals, but had no regrets as he had a valuable supply of furs.

Now, can you try this question as an assignment?

How did Davy Crockett fight in the days of the Old West?

Suggested Words:

eager	important	punish	scene	succeed
fright	result	purpose	satisfy	trust

Sample 3

A reporter thinks fast and can write a good sentence about any kind of situation. These lead sentences have been started. Can you finish them?

Complete the sentences using as many of the words suggested below as you can or any word on the reference sheet. Underline the spelling words.

1. The farmer had _____

supply damage waste

2. The pilot _____

safety attempt greatest

The students were encouraged to use any word of the month in these sentences, since they had been using them now for three weeks in other exercises.

These exercises, D and H, were used in the fourth and eighth weeks of the experiment.

4. Correction of the Exercises

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In correcting the written language exercises, the following methods were used:

Daily
by the pupil

The team chairman checked the accuracy of the spelling of every underlined word for each member of his team. He used the reference sheet as his guide. The position of chairman was rotated weekly. Any misspelled word was corrected immediately and rewritten above the misspelled word.

Weekly
by the teacher

The teacher checked the spelling and the quality of sentences or phrases used by the pupils on Thursday. She had the teams share their work orally with the whole class.

by the pupil

Each pupil recorded on the spelling log the words he used during the three days of written exercises. He put the number of words used in the box in the lower corner and checked the number each week to see if his ability to use words was increasing.

5. The Reference Sheet

All the spelling words of the month with their derived forms were arranged alphabetically on the reference sheet. This sheet served four purposes:

1. Each pupil kept this sheet to which he referred for any spelling of a derived form.
2. He also used this sheet to locate any words which he might need to complete the exercise.
3. It served as a source for the pupils to check the spelling of any word for the month, which they might need, rather than turning back to a specific lesson in the textbook.
4. In any exercise where no specific words were suggested, the pupils used this sheet as a source for the words to be used.

While 72 new words were presented each month, the reference sheet for the first month contained 182 words when all derived forms were listed. In the second month with 72 new words, the reference sheet had 153 words when the derived forms were included. Thus, the pupils had available 335 words to be used in their exercises.

All pupils used the reference sheet during every lesson of the word usage exercises. They kept the same sheet for the month since it contained all words needed for that time.

The reference sheets for the first and second months follow:

REFERENCE SHEET

Lessons 24, 25, 26, 28

already	destroy	jewel
although	destroys	jewels
attend	destroyed	jewelry
attends	destroying	laughter
attended	destroyer	laugh
attending	discovered	laughs
attendant	discovers	laughed
automobile	discovering	laughing
automobiles	discovery	leader
bold	flight	lead
bolder	flights	leads
boldest	flighty	leading
boldly	following	length
bother	follows	level
bothers	followed	levels
bothered	follower	leveled
bothering	follow	leveling
broad	habit	likely
broader	habits	like
broadest	handsome	liked
capture	handsomer	likes
captured	handsomest	liking
capturing	helpful	likeness
captures	highway	manner
county	highways	manners
counties	however	million
debt	hurried	millions
debts	hurry	millionaire
	hurries	muddy
	hurrying	mud
		muddier
		muddiest

narrow	recent	surely
narrower	recently	sure
narrowest		surer
necessary	record	surest
necessarily	records	thief
opposite	recorded	thieves
	recording	
pasture	repair	title
pastures	repairs	titles
patch	repaired	twenty-five
patches	repairing	
patching		
patched	respect	understand
pavement	respects	understanding
pavements	respected	understands
	respecting	understood
	respectful	
payment	robber	unknown
payments	robbers	useful
possible		usefully
possibly	rush	
power	rushes	wagon
powers	rushed	wagons
powerful	rushing	
problem	scarce	whistle
problems	scarcely	whistles
		whistled
promise	seventeen	whistling
promises		
promised	seventh	whom
promising	shone	willing
public	shine	will
publicly	shining	
quickly	simple	worm
quick	simply	worms
quicker		
quickest	someone	worse
rather	steep	wreck
	steeper	wrecks
	steepest	wrecked
		wrecking
	straight	
	straighter	
	straightest	

REFERENCE SHEET

Lessons 29-32

acre	eager	goal
acres	eagerly	goals
	eagerness	
area	enclose	greatest
areas	enclosed	great
	enclosing	greater
assist	encloses	
assists		guilty
assisting	enemy	guilt
assisted	enemies	
assistant		important
		importance
attempt	envy	importantly
attempts	envious	
attempted		inspect
attempting	example	inspects
	examples	inspected
bucket	failure	inspecting
buckets	failures	inspector
	fail	
column	failed	lower
columns	falling	low
		lowest
complete	fierce	
completes	fiercer	lumber
completed	fiercest	lumbering
completing	fiercely	
completely	fierceness	moment
		moments
cork	fright	momentarily
corks	frightens	
damage	frighten	motion
damages	frightening	motioned
damaged	frightful	motioning
damaging	frightened	motionless
		motions
deal	furniture	
deals		nearest
dealing	general	near
dealer	generals	nearer
	generally	nearly
		neither

offend
 offends
 offended
 offending

omitted
 omit
 omits
 omitting

paddle
 paddles
 paddled
 paddling

pilot
 pilots
 piloted
 piloting

plain
 plains
 plainer
 plainest
 plainly
 plainness

prevent
 prevented
 preventing
 prevents
 preventive

property
 properties

pump
 pumps
 pumped
 pumping

punish
 punishes
 punished
 punishing
 punishment

purpose
 purposes

reduce
 reduces
 reduced
 reducing

regret
 regretfully
 regrets
 regretted
 regretting
 regretful

repeat
 repeats
 repeated
 repeating
 repeater

request
 requests
 requesting
 requested

result
 resulted
 results
 resulting

safety
 safe
 safer
 safest
 safely

sample
 samples
 sampled
 sampling

satisfy
 satisfies
 satisfied
 satisfying
 satisfaction

scene
 scenes

selfish
 selfishness
 selfishly

shown
 show
 shows
 showing
 showed

slept
 sleep
 sleeping
 sleeps

source
 sources

speech
 speeches

stump
 stumps

succeed
 succeeds
 succeeding
 succeeded
 success

supply
 supplies
 supplied
 supplying

support
 supported
 supporting
 supports

swept
 sweep
 sweeping
 sweeps

tower
towers
towered
towering

topic
topics

trace
traces
traced
tracing

trust
trusted
trusting
trusts
trustworthy

valley
valleys

valuable
valuably
valuebleness

value
values
valued
valuing

variety
varieties

waste
wastes
wasting
wasted

wealth
wealthy
wealthiness

weed
weeds
weeded
weeding

worry
worrisome
worries
worried
worrying

7. Construction of the Measures

Synonym context test.--It was the purpose of the synonym context test to measure the ability of the pupils to transfer spelling words to written language situations.

In constructing this test, 80 of the spelling words were used in two forms, Form A and Form B. Fifty of the same spelling words were repeated in both forms, but used in different situations.

The set up of the test was by paragraphs. These paragraphs were written with the word or words meaning the same as the spelling word, underlined and numbered. A space was provided in the right-hand column for the filling in of the spelling word. These spaces were numbered to correspond with the underlined word or words in the paragraph.

The pupils listened to the paragraph read. They then substituted a word which meant the same or about the same as the underlined and numbered words. They wrote this word in the corresponding space on the right.

The directions for this test were as follows:

In the sentences below, certain words have been underlined. Think of a word which means the same or about the same as the word underlined. Write it in the space to the right which has the same number.

Example:

	1	
Ted Williams can run <u>swiftly</u>		1. <u>quickly</u>
over the bases and can <u>hit</u> the ball	2	2. <u>bat</u>
<u>savagely</u> . He can stretch a <u>one base hit</u>	3	3. <u>wildly</u>
into a <u>two base hit</u> very often, and he	4	4. _____
<u>gets</u> the cheers from the crowd.	5	5. _____
	6	6. _____

The word quickly means the same as swiftly, so it is written in the space marked in the right-hand column.

The word bat means about the same as hit, so it is written in space number 2.

The word wildly means about the same as savagely, so it is written in space number 3.

Can you do number 4? Think of a word which means the same as one base hit. Write it in the space marked number 4.

Did you write in single?

Now try numbers 5 and 6 with your teacher.

The following samples of paragraphs are taken from Form A and Form B of this test:

SYNONYM CONTEXT TEST - A

	1	
I. The man <u>who was leading</u> was climbing slowly		1. _____
but <u>certainly</u> up the <u>high</u> mountainous road which	2	2. _____
was <u>thin</u> and in places, <u>wet soil</u> . The man had	3	3. _____
been <u>full of assistance</u> on this trip, and has	4	4. _____
<u>found</u> many new trails. He had seemed <u>daring</u> at	5	5. _____

times and cautious at others. He joked in a way⁹ 6. _____
 which brought chuckles¹⁰ to all in the group. He 7. _____
 did not try to set any unequaled¹¹ time in making 8. _____
 the climb, and made the whole journey seem an 9. _____
easy¹² matter. 10. _____

II. The policeman hastened¹³ after the robber¹⁴ 13. _____
 who had stolen the gem¹⁵ and blew his signal¹⁶ loud- 14. _____
 ly. He had been pursuing¹⁷ the good-looking¹⁸ man 15. _____
 now for a long time. Suddenly the robber start- 16. _____
 ed to run, and so the policeman went more rapid¹⁹- 17. _____
 ly, too, hoping to catch²⁰ him. This robber was 18. _____
 a people's²¹ enemy. 19. _____

SYNONYM CONTEXT TEST - B

1. The not so long ago¹ arrival of the daring² 1. _____
 hockey team has caused much excitement with cheers 2. _____
 from the boys and chuckles³ from the girls. There 3. _____
 has been even now⁴ a demand for tickets as every- 4. _____
 one wants to be present⁵. The team is known for 5. _____
 its force⁶, and has set many unequaled⁷ scores. 6. _____
 They hold the name⁸ of champion and have been called 7. _____
 one team in a ten hundred thousand⁹. 8. _____
 9. _____

Procedure for administering.--These tests were administered by the writer with the following procedure:

1. The directions were read orally and the sample was completed by the class.
2. The writer then read the first paragraph to the pupils, as they listened with pencils down on the desk.
3. The pupils then wrote in the spaces the words they knew which meant the same as the underlined. Approximately 15 seconds was allowed for each response in the paragraph.
4. When the allotted time for doing the paragraph had passed, the next paragraph was read to the children.
5. Again they wrote the words after the reading.
6. This method was repeated for each paragraph.

In this manner, all of the pupils were given the opportunity to do some of each paragraph. After the timing of the last paragraph, the pupils were allowed five minutes to go back over the test to fill in any words they did not have time to do.

The total timing, with the oral reading of the paragraphs included, was from 35 to 40 minutes.

Scoring of synonym context test.--In correcting these tests, only the synonyms which were words on the spelling list were marked correct, and each spelling word had to be spelled

accurately. The score was the number of spelling words which were used correctly as synonyms and spelled accurately. The possible total score was 80.

Composition measures.--Three original compositions for each child in the experimental and control groups were collected. The number of the spelling words used in these compositions were counted. The spelling words which were counted included any of the 144 new words of the eight-week period to be taught.

As a final measure, four topics were listed. These topics were selected because the spelling words could be used in writing about any one of them. The pupils were directed to select two of the four topics and write a good paragraph about each of the two topics.

The topics were:

The Exciting Life in a Lumber Camp

If I Had Magic Power

Mystery of the Stolen Gem

Safety of the Highways

In this same test, the pupils were asked to write two phrases which might describe each of the following:

1. Robin Hood
2. A Truck Driver
3. The Danger of Fire

4. A Farm
5. A Big City
6. Ted Williams

These topics were selected as ones which might stimulate use of the spelling words which had been taught over the past eight weeks. Some of these topics had been used as units of interest in the spelling units from their textbooks.

The spelling words used by the pupils in both the paragraphs and the phrases were counted. The score was the number of spelling words or derived forms used by the pupil. The total score possible would have been the 144 words plus their derived forms.

Spelling inventory test.-- The spelling inventory test was arranged by the writer to test the accuracy of the spelling of words which were to be taught over the eight-week period.

A list of the spelling words for the eight-week period was compiled, giving a total of 144 words; (18 new words were taught each week for the eight weeks of the experiment).

Starting with the first word on the list, every other word was selected, giving a total listing of 72 words. This list became Form A of the spelling inventory test.

Starting with the second word on the list, every other

word was selected, giving a total of 72 words. This list became Form B of the spelling inventory test. Every other word over the eight-week period was used in the test.

The teacher dictated the word, used it in a sentence, and then repeated the word.

The distribution of these two forms was made according to the same chart as used in the synonym context test. The following chart shows this distribution:

Numbers assigned to classes	Group	Initial Testing	Final Testing
Numbers 1,2,3,4	Experimental	A	B
Numbers 5,6,7,8	Experimental	B	A
Numbers 1,2,3,4	Control	A	B
Numbers 5,6,7,8	Control	B	A

Derived form test.--This original test was planned to measure the pupil's ability to spell the derived form of certain spelling words which had been studied. The derivatives of 50 of the spelling words were used in this test.

A series of sentences were written with blank spaces with a number over each space. The teacher read the sentence to the pupils, dictating the word which was a derived form of a spelling word which was to be written in the blank space.

For example, a sentence read:

Pirates were the 1_____adventurers who 2_____the wild waves to far distant lands.

The teacher read, "Pirates were the 1boldest adventurers who 2followed the wild waves to far distant lands." She then repeated the missing words. The pupils wrote in the numbered space the word dictated by the teacher.

The teacher timed the dictation by the writing response of the group. When the majority of the group was finished, she went on to the next sentence.

This measure was administered by the classroom teacher after the experiment.

The score was the number of derived forms spelled accurately. A possible total score of 50 could be achieved.

Definition of words test.--This original test was set up as a quick answer type. The definitions of 32 spelling words were listed in a column with a space to the right. The directions were given as follows:

What word does the definition make you think of? Do you know another word which means about the same?

Look at the definitions in the sample below. Think of a word which means the same or about the same.

The first one is much money and the word wealth has been written beside it. Wealth means about the same as having much money.

Now try the second one, write a word which means to make smaller. Did you write reduce? Reduce means to make smaller.

Do C---which is the word for leave out? Did you write omit? Omit means to leave out.

- | | |
|----------------------------|---------------|
| A. much money | <u>wealth</u> |
| B. make smaller or lighter | _____ |
| C. to leave out | _____ |

Write the word which means:

- | | |
|-------------------------|-------------------------|
| 1. name of a book _____ | 6. something owed _____ |
| 2. good looking _____ | 7. easy _____ |
| 3. definitely _____ | 8. go fast _____ |
| 4. gem _____ | 9. big number _____ |
| 5. seize _____ | 10. hard to solve _____ |

The children wrote in the words after having read the definition to themselves.

The score was the number of spelling words spelled accurately which were used to mean the same as the definition in Column I. The total score possible was 32.

Reliability of tests

The reliability of the three original tests was computed by splitting the single test by chance into halves assuming that these halves are "equivalent" to each other, and scoring each half separately for the individuals in the given group.

The reliability of the synonym context test, Form A, was 0.95. On Form B of the same type test, the reliability was 0.92.

On the definitions test of the whole test was estimated to be 0.90.

The derived form test has a reliability of 0.97 which indicated a very high degree of reliability.

CHAPTER III

PLAN OF STUDY IN SPELLING TRANSFER

Introduction.-- The purpose of this study was to stimulate the use of the spelling words through a variety of controlled written language situations on the fifth grade level. The plan was designed to determine:

1. The ability of the pupils to transfer the spelling words to the written language.
2. The ability of the pupils to spell accurately the assigned words when they have been stimulated to use them in written language situations.
3. The ability of the pupils to spell the derived forms of the spelling words after using them as needed in written language exercises.
4. The ability of the pupils to increase their understanding of the meanings of the spelling words through usage in written language.

Selection of population.-- The cooperation of a school department was now needed in order to conduct this experiment in fifth grade classrooms. The superintendent of the public schools in which the writer is a supervisor was most willing to have his city schools participate. The city is highly industrialized, but

represents the usual variety of economic and social groups of the large city.

With the assistance of the supervisor of intermediate grades, eight classes were selected from the eastern section, which represents a higher economic level, four for the experimental and four for the control. Eight classes were selected from the western area, which represents a lower economic level, again four for each group, the experimental and the control.

The eight classrooms which were selected in the experimental group gave a final population of 262 pupils.

The eight classrooms which were selected in the control group gave a final population of 254 pupils. Equating of teachers.-- The teachers were equated on the basis of years of experience and the rating of the teacher in the opinion of supervisors of elementary education and the principal of the school in which they taught.

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The following chart shows the years of experience of the teachers and the rating by the supervisory staff:

Experimental				Control			
Teacher	Experi- ence No. of Years	Sec- tion	Rating	Teacher	Experi- ence No. of Years	Sec- tion	Rating
No. 1	20	E	Good	No. 1	40	E	Good
No. 2	15	E	Excellent	No. 2	30	E	Excellent
No. 3	33	W	Excellent	No. 3	20	W	Excellent
No. 4	10	E	Good	No. 4	10	E	Good
No. 5	10	W	Good	No. 5	10	W	Good
No. 6	8	W	Excellent	No. 6	6	W	Excellent
No. 7	7	E	Excellent	No. 7	6	E	Excellent
No. 8	1	E	Good	No. 8	1	E	Good

The sixteen teachers selected expressed the desire to participate in this experiment. A meeting was held so that the purpose of the study might be stated, the testing program might be explained, and the techniques involved in practicing the word usage exercises might be outlined in detail. A demonstration of the team

organization was presented with three teams of children participating in the sample exercise.

The role of each group was explained to the teachers in the experiment. The control group was to carry on the method which was then in practice as suggested in the textbook, Word Mastery Speller^{1/}. The experimental group was to follow the plan which is described in this chapter.

Organization for team learning.-- In order to carry out the program of word usage techniques, the class was organized in teams of three which were grouped homogeneously. The organization of teams to work on the exercises seemed the best procedure for the following reasons:

1. In the team situation, the pupils would have the opportunity to discuss together the possible uses and meanings of the spelling words as they might be needed in the specific lesson before writing.

2. This organization of teams promoted elaborative thinking as the pupils contributed new ideas to each other on the particular language exercise.

1/ op.cit.p.33

3. The pupils were motivated by their team members who shared their ideas and enthusiasm in this experience. They were also motivated by the quality of work of the other teams as the end results were shared.

4. The teams being organized homogeneously presented the opportunity for the pupils to work with team members who would progress at about the same rate with similar ability in spelling.

The pupils worked in these homogeneous teams of three pupils on the three days when word usage exercises were written. The teams were organized on the basis of the initial results of the spelling inventory test. This test had been administered by the teacher prior to the experiment.

The class worked as a complete unit on the other two days; on Monday, when the words of the week were introduced and enriched; and on Friday, when the words of the week were tested.

Time allotment.-- The experiment in spelling transfer covered a period of eight weeks. The regularly allotted time of 20 minutes a day was allowed for each of the lessons. The same time was allowed in both the experimental and the control groups for the spelling period.

The total time in spelling for the week in both groups equalled 100 minutes.

Source of the words to be taught.-- The words to be taught during the experiment were those words in Lessons 24 - 32 in Word Mastery Speller^{1/}, the textbook in use.

Eighteen new words were taught each week, which totaled seventy-two new words in the month.

Weekly procedure

EXPERIMENTAL

Monday:

The words of the week were introduced by the plan suggested in Word Mastery Speller^{2/} which was as follows:

1. Children looked at the picture. They read the story. They said each word in the list of new words after the teacher said them.
2. They found the new words in the story, saying them as they located them.

1/ op. cit.

2/ Ibid.

CONTROL

Monday:

Same procedure

EXPERIMENTAL

CONTROL

3. They studied each new word using the study plan as follows:

- a. Look at the word and say it.
- b. Look at the letters in the word.
- c. Close your eyes. Try to remember how the letters look. Imagine that you're writing the letters. Then say the letters to yourself.
- d. Open your eyes. Look at the word. See whether you said the words right.
- e. Write the word on paper from memory. Check the word you wrote with the printed word to see whether you spelled correctly.
- f. If your written word is wrong, study the word again.

EXPERIMENTAL

Tuesday:

The word usage exercises were practiced in teams of three. These exercises used the words of the month with derived forms available on the reference sheet.

The discussion of ideas for the exercises was held within the team until the sentences or phrases were decided. All members of the team then wrote the sentences or phrases which they had discussed.

Wednesday:

The same procedure as above was followed with the second word usage exercise.

The teams of three pupils discussed and wrote the suggested exercises. Pupils continued to use the reference

CONTROL

Tuesday:

Children looked at the new words again, to be sure of the meanings.

The exercises for "Using My Words" were read. This exercise required that spelling words were to be written to complete the sentences. These exercises were found in the textbook.

Wednesday:

The trial test was administered by the teacher. The children corrected their own tests. They recorded the spelled words in their notebook in the

EXPERIMENTAL

sheet with words and derived forms of the month's work.

Thursday:

The same procedure as used on Tuesday and Wednesday was followed on the third day of word usage exercise, again using the reference sheet.

At the completion of this lesson, the pupils recorded in the spelling log all the spelling words which they had used in developing these exercises. The spelling words were then counted and the number was recorded in the block for this purpose on the spelling log.

Friday:

The final test was administered by the teacher on the words of the week.

The test was corrected by the teacher. The scores

CONTROL

section called "Trouble Kit."

Thursday:

Pupils studied each new word again.

Exercise D, "Learning About Words" was written by each child.

Friday:

The same procedure for testing was followed that the experimental group used.

EXPERIMENTAL

CONTROL

Friday: (cont.)

were recorded on a score chart in the back of the pupil's notebook.

Misspelled words were written correctly in the "Trouble Kit" in the notebook.

Correction of spelling exercises.--

EXPERIMENTAL

CONTROL

Tuesday:

Tuesday:

The team chairman checked the accuracy of the spelling of his team for each of the 3 days that these exercises were written.

Exercise B was corrected by the pupils exchanging papers.

Corrections were made by the pupils immediately by writing the correct form above the misspelled word.

EXPERIMENTALWednesday:

The same procedure was followed by the team chairman as on Tuesday.

Thursday:

The same procedure was followed by the team chairman as on Tuesday and Wednesday.

The teacher also checked the accuracy of the spelling words and corrected the language in the written exercises.

The pupils recorded all the spelling words and their derivatives which had been used during these exercises in the spelling log.

CONTROLWednesday:

Trial test was administered by the teacher and corrected by the pupils. Each one recorded his score and corrected errors.

Thursday:

Exercise D was corrected by the pupils exchanging papers.

EXPERIMENTAL

Friday:

The test on the words of the week was administered and corrected by the teacher.

The marks achieved were recorded on the score sheet in the notebook.

Corrections were made in the "Trouble Kit."

CONTROL

Friday:

The same procedure was followed as in the experimental group.

Measures used in the experiment on spelling transfer.--

This testing program was planned for both groups, as a basis for equating the groups and determining the gains.

<u>Type of test</u>	<u>Form</u>	<u>Purpose</u>
A Test of Intelligence		
1. Kuhlmann-Anderson Test ^{1/} (Standardized Test) See Appendix	E	To obtain I. Q. and M. A.
B Tests of Spelling Transfer		
1. Synonym context test (Test designed by the writer) See Appendix	A and B	To test transfer of spelling words.
1/ Kuhlmann-Anderson Test, Form E, Personnel Press, Inc. Princeton, New Jersey		

<u>Type of test</u>	<u>Form</u>	<u>Purpose</u>
2. Composition measures (Test designed by the writer.) See Appendix	A	To measure the number of spell- ing words used in compositions.
C Tests of spelling accuracy		
1. Spelling inventory (Test organized by writer.) See Appendix	A and B	To test the ac- curacy of the spelling of words taught from lessons.
2. Metropolitan Achievement Test (Standardized Test) See Appendix	1/ R as initial test. T as final test.	To test spelling ability and ob- tain spelling grade level.
D Test of derivatives of spelling Words		
1. Derived form test (Test designed by writer.) See Appendix	A	To measure the ability to use the derived forms of
1/ Metropolitan Achievement Test, World Book Company, Boston, Massachusetts		

<u>Type of test</u>	<u>Form</u>	<u>Purpose</u>
E Test of meanings of spelling words		spelling words, which have been taught. Administered after the experiment.
1. Definitions test	A	To measure the ability to use the spelling words as synonyms after the definition had been stated. Administered after the experiment.
(Test designed by writer.) See Appendix		

In administering the synonym context test and the spelling inventory, two forms of the test were used.

Form A was administered to four classes in the experimental and four classes in the control group in the initial testing. Form B was administered to these same classes in the final testing.

The other four classes in the experimental and the four in the control, received Form B in the initial testing and Form A in the final testing.

The following chart illustrates this distribution of tests:

<u>Numbers assigned to classes</u>	<u>Group</u>	<u>Initial Testing</u>	<u>Final Testing</u>
Numbers 1, 2, 3, 4,	Experimental	A	B
Numbers 5, 6, 7, 8,	Experimental	B	A
Numbers 1, 2, 3, 4,	Control	A	B
Numbers 5, 6, 7, 8,	Control	B	A

Description of measures.--

1. Kuhlmann-Anderson Test

Mental ages and intelligence quotients were obtained for the population from the sixth edition, Form E. A copy of the test booklet appears in the Appendix.

2. Synonym context test

An original instrument, called the synonym context test, was designed to measure the transfer of

1/ op. cit.

spelling words to written language situations. Two forms of the test were devised, Form A and Form B.

Each form required 80 responses. These responses included eighty of the spelling words taught during the eight-week period. Fifty of the same spelling words were repeated in different situations in both Form A and Form B.

The construction of this test is described in Chapter 2.

3. Composition Measures

Three original compositions which had been written by each of the pupils in the experimental and control groups were collected by the writer. The number of spelling words from the spelling list, which were used in the compositions, were counted. This number of spelling words became the initial score.

As a final measure, the spelling words used in original compositions and phrases were counted. Four topics were presented to the pupils from which they might select two about which to write a paragraph. The pupils were also asked to write two phrases which might describe six topics.

The number of spelling words from the spelling list of words were counted and the number recorded.

4. Spelling Inventory Test

This test was organized from the complete list of 144 new words to be taught during the eight weeks of the experiment. It tested the ability of the pupils to spell accurately the words on the spelling list.

5. Metropolitan Spelling Achievement Test^{1/}

The standardized Metropolitan Achievement Test was administered to test the spelling ability and obtain a spelling grade level which was based on national norms.

The procedure for administering was set up in the manual of directions. The spelling word was dictated by the teacher; the word was used in a sentence; the spelling word was repeated; the children wrote the word.

Form R was used in the initial testing and Form T was used in the final testing.

The scoring of the test was done according to the directions in the manual. The grade level of the pupil was recorded.

6. Derived Form Test

This test was planned to measure the pupils' ability to spell the derived form of certain spelling words which had been studied. The pupil wrote the

1/ op. cit.

derived form as dictated by the teacher to fill in the blanks in a paragraph. The derivatives of 50 of the spelling words were used in this test.

7. Definition of Word Test

The purpose of this test was to measure the pupils' ability to use the spelling words as the definition of a group of words. The definitions of 32 spelling words were listed in a column with a space to the right. The pupils filled in the spelling word.

The number of spelling words spelled accurately was the score. The total score possible was 32.

The total program.-- In this testing program, a total of seven tests were used. One standardized test was used to obtain an intelligence quotient and mental age for equating the groups.

Two tests of transfer of spelling words to written language were used before and after the experiment. These two tests were original measures; the synonym context test and the composition measures.

Two tests were administered to check spelling accuracy before and after the experiment. One test was standardized and one organized from spelling words to be taught in the eight-week period. These tests were

Metropolitan Achievement Test^{1/} and the spelling inventory test.

Two tests were administered only after the experiment, the derived form test and the definitions test. These two tests were original tests.

1/ op. cit.

CHAPTER IV
ANALYSIS OF DATA

In this study, an investigation was made to discover the effect of specific training on transfer of spelling words to written language situations. It was the purpose of this study to seek answers to the following questions:

1. Do children transfer the spelling words to written language situations?
2. Do children learn to spell accurately the assigned spelling words when they have been stimulated to use them in written language situations?
3. Do children learn to spell the derived forms of the spelling words as they are needed in written language exercises?
4. Do children increase their understandings of meanings of spelling words through written usage?

It was necessary to establish a level at which a difference could be considered significant. Mills ^{1/} makes the following statement:

"If a given difference between the hypothetical and observed values would occur as a result of chance one time out of one hundred, or less frequently, we may say that the difference is significant. This means that the results are not consistent with the hypothesis we have set up. If the discrepancy between theory and observation, might occur more frequently than one time out of one hundred solely because of the play of chance we may say the difference is not clearly significant. The results are not inconsistent with the hypothesis. The value of T (the difference between the hypothetical values and the observed mean, in units of the standard error of the mean) corresponding to a probability of 1/100 is 2.576. One hundredth part of the area under a normal curve lies at a distance from the mean, on the axis, of 2.576 standard deviations or more. Accordingly, tests of significance may be applied with direct reference to T, interpreted as a normal deviate (i.e., as a deviation from the mean of a normal distribution expressed in units of standard deviation). A value of T of 2.576 or more indicates a significant difference, while a value of less than 2.576 indicates that the results are not consistent with the hypothesis in question."

In the light of preceding information, any difference between the means will be interpreted as statistically significant, if the value is more than 2.576.

^{1/} Mills, Frederick C., Statistical Methods Revised, Henry Holt and Company, New York, 1928, p. 84-92.

In analyzing the data which were compiled, the comparisons were made on the basis of the following groups:

1. The entire experimental and control group
2. The pairs of pupils who had been matched from the experimental and the control groups
3. The division of the experimental group into four areas of achievement on the basis of the results of the Metropolitan Achievement Test.

In the beginning of this study, the means and standard deviations were computed on the total population of five hundred and sixteen children. Two hundred and sixty two pupils were in the experimental group, and two hundred and fifty four pupils were in the control group. The variables which were utilized in the computations for this study were:

1. Chronological Age
2. Mental Age
3. Intelligence Quotient
4. Synonym Context Test
5. Composition Test
6. Spelling Inventory
7. Metropolitan Achievement Test

Table 1 - Table 7 show the likeness of the experimental and the control groups on these variables

in the initial testing which took place in the first week of March.

Table 1. shows the likeness of the experimental and the control group in chronological ages as the experiment started in March.

Table 1.
Comparison of the Chronological Ages
of the Experimental and Control Groups

Group	No.	Mean	S.D.	S.E.M.	S.E. Diff.	Diff.	C.R.
Experimental	262	10.23	8.29	.512	0.07	.665	.105
Control	254	10.16	6.78	.425			

The mean chronological age of the experimental group was 10.23 with a standard deviation of 8.29. The mean age of the control group was 10.16 with a standard deviation of 6.78. The mean difference was 0.07 years which favored the experimental group slightly. There was no significant difference between the two groups, as the critical ratio was .105.

Table 2. shows the likeness of the experimental and control groups on the mean mental ages.

Table 2.
Comparison of the Mental Ages
of the Experimental and Control Groups

Group	No.	Mean	S.D.	S.E.M.	S.E. Diff.Diff.	C.R.
Experimental	262	10.62	11.94	0.738	0.17	0.995
Control	254	10.79	10.73	0.674		

The experimental group had a mean mental age of 10.62 and a standard deviation of 11.94. The control group had a mean mental age of 10.79 and a standard deviation of 10.73. The difference was 0.17 which favored the control group slightly. The critical ratio was 0.176 which was not statistically significant.

Table 3. shows the likeness of the experimental and the control group on intelligence quotients.

Table 3.
Comparison of Intelligence Quotients
of the Experimental and the Control Groups

Group	No.	Mean	S.D.	S.E.M.	S.E. Diff.Diff.	C.R.
Experimental	262	104.92	12.43	0.768	1.67	1.05
Control	254	106.59	11.52	0.722		

In Table 3. the mean intelligence quotient for the experimental group was 104.92 and a standard deviation of 12.43. The mean intelligence quotient of the control group was 106.59 and a standard deviation of 11.52. The difference was 1.67 which favored the control group. The critical ratio of 1.59 was not statistically significant.

The initial testing was done in the first week of March. Table 4. compares the initial scores on the synonym context test by the experimental and the control groups.

Table 4.

Initial Scores on the Synonym Context Test
March

Group	No.	Mean	S.D.	S.E.M.	Diff.	S.E. Diff.	Ratio
Experimental	262	8.82	7.57	0.467	2.16	0.818	2.63
Control	254	10.98	10.82	0.679			

In the initial testing of the synonym context test, the control group scored a mean of 10.98 and a standard deviation of 10.82. The experimental group had a mean score of 8.82 and a standard deviation of 7.57. The mean difference was 2.16 which favored the control group. The critical ratio of 2.63 was statistically significant at the 1% level. Since the control

group was significantly higher on this initial test, it was necessary to match pairs of cases in order to compare gains accurately.

The composition tests measured the transfer of spelling to the written language. Table 5. shows the initial scores of this test, which was administered in March.

Table 5.
Initial Scores on the Composition Test
March

Group	No.	Mean	S.D.	S.E.M.	S.E. Diff.	Diff.	C.R.
Experimental	262	0.45	0.73	0.045	0.02	0.063	0.317
Control	254	0.47	0.76	0.047			

The initial mean score of the experimental group was 0.45 and a standard deviation of 0.73. The control group had a mean score of 0.47 and a standard deviation of 0.76. The scores were very low with a slight difference of 0.02 which favored the control group. The critical ratio of 0.317 was not significant.

This was the only initial test in which the control group was not significantly higher than the experimental group.

Two tests were presented to determine the gains made in the ability of the pupils to spell accurately; the spelling inventory and the Metropolitan Achievement Test. The spelling inventory tested the ability to spell the words of the assigned spelling list.

Table 6. shows the likeness of the experimental and the control groups on the initial test of the spelling inventory test, administered in the first week of March.

Table 6.
Initial Scores on Spelling Inventory Test
March

Group	No.	Mean	S.D.	S.E.M.	Diff.	S.E. Diff.	C.R.
Experimental	262	38.07	17.81	1.10			
Control	254	44.52	16.28	1.02	6.45	1.50	4.30

The initial mean score of the experimental group was 38.07 and a standard deviation of 17.81. The initial mean score of the control group was 44.52 and a standard deviation of 16.28. The mean difference was 6.45. The critical ratio of 4.30 was statistically very significant. This gave an advantage to the control group as the experiment started, and made it necessary to match pairs from the experimental and the control groups.

Table 7. shows the initial mean scores on the Metropolitan Achievement Test in Spelling, which was administered in the first week in March.

Table 7.

Initial Scores on the Metropolitan Achievement Test
March

Group	No.	Mean	S.D.	S.E.M.	Diff.	S.E. Diff.	C.R.
Experimental	262	60.25	12.78	0.789			
Control	254	66.91	12.29	0.771	6.66	1.10	6.05

The initial score of the experimental group was 60.25 and the standard deviation was 12.78. The control group score was 66.91 and the standard deviation was 12.29. The mean difference between the two scores was 6.66. The critical ratio was 6.05 which was very significant. This was the second test in which the control group was significantly better in the ability to spell the words.

From the preceding tables, it can be seen that the total groups were not equal on all variables. The writer, however, decided to show the final scores for the total group before proceeding to the data on the matched pairs.

FINAL DATA ON TRANSFER OF SPELLING
WORDS TO WRITTEN LANGUAGE

The ability to transfer the spelling words to written language situations was measured by two tests: the synonym context test and the composition measures. The data from these two tests of transfer were analyzed to compare the gains made by the entire experimental and control groups.

Since the initial scores of the control group were significantly higher than the experimental group, the final scores will not be an accurate measure.

Table 8. shows the final mean scores achieved by the experimental and the control groups on the synonym context test, which was administered in May.

Table 8.

Final Scores on Synonym Context Test

May

Group	No.	Mean	S.D.	S.E.M.	Diff.	S.E. Diff.	C.R.
Experimental	262	36.06	15.87	.980	18.37	1.70	10.79
Control	254	17.69	11.67	.732			

In the final scores, the mean of the experimental group was 36.06 and a standard deviation of 15.87. The mean of the control group was 17.69 and a

standard deviation of 11.67. The difference of the mean scores was 18.37, which favored the experimental group. The critical ratio of 10.79 was statistically very significant.

Table 9. compares the gains made by the experimental group on the synonym context test from initial testing in March to the final testing in May.

Table 9.

Experimental Group Gains on the Synonym Context Test
March to May

Test	No.	Mean	S.D.	S.E.M.	Diff.	S.E. Diff.	C.R.
Initial	262	8.82	7.57	0.467	27.24	1.08	25.22
Final		36.06	15.87	0.980			

In the initial testing, the mean score was 8.82 and the standard deviation was 7.57. In the final testing, the mean was 36.06 and the standard deviation was 15.87. The difference in mean scores was 27.24. The critical ratio of 25.22 showed a gain that was very significant at the 1% level.

Table 10. compares the gains made by the control group on the synonym context test from the initial testing in March to the final testing in May.

Table 10.

Control Group Gains on the Synonym Context Test
March to May

Test	No.	Mean	S.D.	S.E.M.	S.E. Diff.Diff.	C.R.
Initial	254	10.98	10.82	0.679	6.71 0.995	6.74
Final		17.69	11.67	0.732		

The initial mean score was 10.98 and the standard deviation of 10.82. The final mean score was 17.69 and the standard deviation of 11.67. The difference in mean scores was 6.71. The critical ratio of 6.74 was very significant on the 1% level.

Table 11. shows the comparison of the mean gains in the initial and final testing of the synonym context test by the experimental and control groups.

Table 11.
Comparison of Mean Gains on the Synonym Context Test
March to May

Group	No.	Gain	S.E. Gain	Diff.	S.E. Diff.	C.R.
Experimental	262	27.24	1.08	20.53	1.47	13.96
Control	254	6.71	0.316			

The experimental group had a mean gain of 27.24 and the standard error of the gain was 1.08. The mean gain of the control group was 6.71 with the standard error of the gain 0.316. The difference between the gains was 20.53 which favored the experimental group. The critical ratio of 13.96 was very significant for the experimental group at the 1% level.

Table 12. compares the final scores by the experimental and control groups on the composition test which was administered in May.

Table 12.
Final Scores on Composition Test
May

Group	No.	Mean	S.D.	S.E.M.	Diff.	S.E. Diff.	C.R.
Experimental	262	4.63	2.86	0.177	1.96	0.683	2.87
Control	254	2.67	6.27	0.392			

The experimental group had a mean score of 4.63 and a standard deviation of 2.86. The control group had a mean score of 2.67 and a standard deviation of 6.27. The difference between the mean scores was 1.96 which favored the experimental group. The critical ratio of 2.87 was significant for the experimental group at the 1% level.

Table 13. shows the gains made by the experimental groups on the composition test in the initial and final testing.

Table 13.

Experimental Group Gains on the Composition Test
March to May

Test	No.	Mean	S.D.	S.E.M.	Diff.	S.E. Diff.	C.R.
Initial	262	0.45	0.73	0.045			
Final		4.63	2.86	0.180	4.18	0.184	22.71

The initial mean score was 0.45 and the standard deviation was 0.73. The final mean score was 4.63 and the standard deviation was 2.86. The mean gain was 4.18 between the initial and final scores. The critical ratio of 22.71 was statistically very significant.

Table 14. shows the gains made by the control group on the initial and final testing administered in March and in May.

Table 14.
Control Group Gains on the Composition Test
March to May

Test	No.	Mean	S.D.	S.E.M.	Diff.	S.E. Diff.	C.R.
Initial	254	0.47	0.76	0.047			
Final		2.67	6.27	0.392	2.20	0.394	5.58

The mean score on the initial testing was 0.47 and the standard deviation was 0.76. The final score was 2.67 and the standard deviation was 6.27. The difference between the mean scores was 2.20. The critical ratio was 5.58 which was statistically significant at the 1% level.

Table 15 compares the gains of the experimental and control groups on the initial March testing and the final May testing on the composition test.

Table 15
Comparison of Mean Gains on the Composition Test
March to May

Group	No.	Mean Gain	S.E. Gain	Diff.	S.E. Diff.	C.R.
Experimental	262	4.18	0.184	1.98	0.435	4.55
Control	254	2.20	0.394			

The mean gain of the experimental group was 4.18 and the standard error of the gain was 0.184. The mean gain of the control group was 2.20 and the standard error of the gain was 0.394. The difference between the gains was 1.98 which favored the experimental group. The critical ratio was 4.55 which indicated a statistically significant gain by the experimental group on the composition test.

FINAL DATA ON THE ABILITY TO SPELL ACCURATELY

These data were compiled from the results of, 1, the spelling inventory test which measured the ability to spell the words of the spelling list; and 2, the results of the Metropolitan Achievement Test in Spelling, which gave a spelling grade level score.

Table 16. compares the final scores of the spelling inventory test which was administered in May. These final scores do not give an accurate measure since the control group was significantly higher on the initial test, given in March.

Table 16.

Comparison of the Final Scores on the Spelling Inventory
May

Group	No.	Mean	S.D.	S.E.M.	Diff.	S.E. Diff.	C.R.
Experimental	262	58.09	13.47	0.831			
Control	254	60.04	12.36	0.780	1.95	1.15	1.70

In the final mean scores, the experimental group achieved 58.09, and the standard deviation was 13.47. The final mean score of the control group was 60.04 and the standard deviation was 12.36. The mean difference was 1.95, which favored the control group. The critical ratio of 1.70 indicated that the final scores were not significantly different.

Table 17. shows the gains of the experimental group from the March initial testing to the May final testing on the spelling inventory test.

Table 17.
Experimental Group Gains on the Spelling Inventory
March to May

Test	No.	Mean	S.D.	S.E.M.	Diff.	S.E. Diff.	C.R.
Initial	262	38.07	17.81	1.10			
Final		58.09	13.47	0.85	20.02	1.39	14.66

The experimental group had an initial mean score of 38.07 and a standard deviation of 17.81. The final mean score was 58.09 and the standard deviation was 13.47. The mean gain in scores was 20.02. The critical ratio was 14.66, which was statistically very significant.

Table 18 shows the gains of the control group from the March initial testing to the May final testing on the spelling inventory test.

Table 18
Control Group Gains on the Spelling Inventory
March to May

Test	No.	Mean	S.D.	S.E.M.	Diff.	S.E. Diff.	C.R.
Initial	254	44.52	16.28	1.02			
Final		60.04	12.36	.78	15.52	1.28	12.12

The control group had an initial mean score of 44.52 and a standard deviation of 16.28. The final mean score was 60.04 and the standard deviation was 12.36. The mean gain was 15.52. The critical ratio of 12.12 was statistically very significant.

Table 19. compares the gains of the experimental and the control group on the spelling inventory.

Table 19.
Comparison of Mean Gains
on Spelling Inventory

Group	No.	Mean Gain	S.E. Gain	Diff.	S.E. Diff.	C.R.
Experimental	262	20.02	1.39	4.50	1.88	2.39
Control	254	15.52	1.28			

The mean gain of the experimental group was 20.02 and the standard error of the gain was 1.39. The mean gain of the control group was 15.52 and the standard error of the gain was 1.28. The difference between the gains was 4.50 which favored the experimental group. The critical ratio of 2.39 was significant at the 5% level.

Table 20 shows the final mean scores achieved by the experimental and the control groups on the Metropolitan Achievement Test in Spelling, which was administered in May. These scores do not present an accurate measure as the control group was significantly higher in the initial test.

Table 20
Final Scores on the Metropolitan Achievement Test
in Spelling
May

Group	No.	Mean	S.D.	S.E.M.	Diff.	S.E. Diff.	C.R.
Experimental	262	64.64	12.09	0.750	4.03	1.06	3.80
Control	254	68.67	11.93	0.750			

The experimental group had a mean score of 64.64 and a standard deviation of 12.09. The mean of the control group was 68.67 and a standard deviation of 11.93. The mean difference was 4.03 favoring the control group. The critical ratio of 3.80 was significant at the 1% level, since 2.57 was the figure used as level of significance.

Table 21. shows the gains made by the experimental group on the initial March testing and the final May testing on the Metropolitan Achievement Test in spelling.

Table 21.

Experimental Gains on the Metropolitan
Achievement Test in Spelling
March to May

Test	No.	Mean	S.D.	S.E.M	Diff.	S.E. Diff.	C.R.
Initial	262	60.25	12.78	0.790			
Final		64.64	12.09	0.755	4.19	1.09	3.84

The initial mean score was 60.25 and the standard deviation was 12.78. The final mean score was 64.64 and the standard deviation was 12.09. The difference between the scores was 4.19. The critical ratio of 3.84 indicated a very significant gain at the 1% level.

Table 22. shows the gains made by the control group on the initial March testing and the final May testing on the Metropolitan Achievement Test in Spelling.

Table 22.

Control Group Gains on the Metropolitan
Achievement Test in Spelling
March to May

Test	No.	Mean	S.D.	S.E.M.	Diff.	S.E. Diff.	C.R.
Initial	254	66.91	12.29	0.77			
Final		68.71	11.93	0.75	1.80	1.07	1.68

The mean score on the initial testing was 66.91 and the standard deviation was 12.29. The mean score on the final testing was 68.71 and the standard deviation was 11.93. The difference between the mean scores was 1.80. The critical ratio of 1.68 was not significant.

Table 23. compares the gains made by the experimental and the control groups on the Metropolitan Achievement Test in Spelling. The initial test was given in March, and the final test in May.

Table 23.

Comparison of Mean Gains on the
Metropolitan Achievement Test in Spelling
March to May.

Group	No.	Mean Gain	S.E. Gain	Diff.	S.E. Diff.	C.R.
Experimental	262	4.19	1.09	2.39	1.52	1.57
Control	254	1.80	1.07			

The mean gain of the experimental group was 4.19 and the standard error of the gain was 1.09. The mean gain of the control group was 1.80 and the standard error of the gain was 1.07. The difference between gains was 2.39 which favored the experimental group. The critical ratio of 1.57 was not significant.

Analysis of Data on the Derived Form Test.

Table 24. compares the mean scores of the experimental and the control groups on the derived form test which was administered in May.

Table 24.

Comparison of Mean Scores on the Derived
Form Test
May

Group	No.	Mean	S.D.	S.E.M.	S.E. Diff.	Diff.	C.R.
Experimental	262	35.12	11.45	0.709	0.81	1.02	0.80
Control	254	34.31	11.59	0.730			

The mean score of the experimental group was 35.12 and the standard deviation was 11.45. The mean score of the control group was 34.31 and the standard deviation was 11.59. The difference between the scores was 0.81 which favored the experimental group slightly. The critical ratio of 0.80 indicated that there was no significant difference in the scores.

Analysis of Data on the Definitions Test.

Table 25. compares the scores of the experimental and the control group on the definitions test which was administered in May.

Table 25.

Comparison of the Mean Scores on the
Definitions Test
May

Group	No.	Mean	S.D.	S.E.M.	Diff.	S.E. Diff.	C.R.
Experimental	262	15.13	6.33	0.391	3.85	0.591	6.59
Control	254	11.28	7.23	0.454			

On the definitions test, the mean score of the experimental group was 15.13 and the standard deviation was 6.33. The score of the control group was 11.28 and the standard deviation was 7.23. The difference was 3.85 which favored the experimental group. The critical ratio was 6.59 which was very significant at the 1% level.

As a result of the initial testing, it was found that the control group had significantly higher scores than the experimental group in three tests: the synonym context test, the spelling test, and the Metropolitan Spelling Achievement Test, and on the fourth test, the composition test, a slightly higher score. Since the initial scores gave the advantage to the control group, it was advisable to match pairs from the experimental and control groups in order to insure a more accurate comparison.

Ninety-seven cases were paired on three variables: mental age, score on the spelling inventory, and the score on the Metropolitan Achievement Test, Form R.

The likeness of these 97 matched pairs is shown in the Tables 26-29 which compare the scores on the above variables.

Matching Data - March Initial Testing

The mean chronological age of the experimental cases was 10.3 and the standard deviation was 8.37. The mean chronological age of the control cases was 10.16 and the standard deviation was 7.55. The difference was 0.14 which favored the control group very slightly. The critical ratio of 0.127 indicated there was no significant difference.

Table 26.
Chronological Ages
of
97 Paired Cases

Group	No.	Mean	S.D.	S.E.M.	Diff.	S.E. Diff.	C.R.
Experimental	97	10.30	8.37	0.85	0.14	1.10	0.127
Control	97	10.16	7.55	0.77			

The mental age of the experimental group of the 97 paired cases was 10.54. The control group was 10.53, which gave a difference of 0.01 to the experimental group.

Table 27.
Mental Ages
of the 97 Paired Cases

Group	No.	Mean	S.D.	S.E.M.	Diff.	S.E. Diff.	C.R.
Experimental	97	10.54	7.72	0.782	0.01	1.10	0.909
Control	97	10.53	7.83	0.793			

Table 28. compares the mean scores of the 97 paired cases in the experimental and the control groups on intelligence quotient as obtained in the Kuhlmann Anderson Test.

Table 28.

Intelligence Quotients of the 97 Paired Cases

Group	No.	Mean	S.D.	S.E.M.	Diff.	S.E. Diff.	G.R.
Experimental	97	103.23	10.39	1.05	0.93	1.42	0.654
Control	97	104.16	9.91	1.01			

The mean score of intelligence for the experimental group was 103.23 and the standard deviation was 10.39. The mean score of intelligence for the control group was 104.16 and the standard deviation was 9.91. The difference was 0.93 which favored the control group slightly. The critical ratio was 0.654. There was no significant difference between the groups on intelligence quotients.

Table 29 compares the initial scores of the 97 paired cases on the Metropolitan Achievement Spelling Test which was administered in March.

Table 29
Initial Scores of 97 Paired Cases on
Metropolitan Achievement Spelling Test
March

Group	No.	Mean	S.D.	S.E.M.	Diff.	S.E. Diff.	C.R.
Experimental	97	36.46	14.34	1.46			
Control		36.56	14.29	1.45	0.05	2.06	0.021

In the initial testing of the Metropolitan Spelling Test, the mean experimental score was 36.46 with the standard deviation of 14.34. The mean score of the control group was 36.56 with a standard deviation of 14.29. The difference between mean score was very slight, 0.05. The critical ratio indicated there was no significant difference between the groups.

Final Data on Matched Pairs on the Transfer of
Spelling Words to Written Language

Table 30. compares the initial scores of the 97 paired cases on the synonym context test which was administered in March.

Table 30.

Initial Scores of the 97 Paired Cases on the
Synonym Context Test
March

Group	No.	Mean	S.D.	S.E.M.	Diff.	S.E. Diff.	C.R.
Experimental	97	7.89	6.76	0.725	0.48	0.945	0.507
Control	97	7.41	5.69	0.610			

The initial experimental scores of the 97 paired cases on the synonym context test was 7.89 and the standard deviation was 6.76. The control score was 7.41 and the standard deviation of 5.69. The difference between the mean scores was 0.48 which favored slightly the experimental group. There was no significant difference between the two groups.

Table 31. shows the final scores of the 97 paired cases on the synonym context test which was administered in May.

Table 31
Final Scores of the 97 Paired Cases
on the Synonym Context Test
May

Group	No.	Mean	S.D.	S.E.M	Diff.	S.E. Diff.	C.R.
Experimental	97	34.38	13.69	1.39	20.38	1.68	12.13
Control	97	14.00	8.30	0.94			

Table 31 compares the final scores of the 97 paired cases on the synonym context test. The experimental score was 34.38 and the standard deviation was 13.69. The control score was 14.00 and the standard deviation was 8.30. The difference between the mean scores was 20.38 which favored the experimental group. The critical ratio was 12.13 which was very significant. This indicated that the experimental matched cases had significantly higher final scores on the synonym context test.

Table 32. shows the gains of the 97 cases from the experimental group on the synonym context test in the initial March testing and the final May testing.

Table 32

Experimental Group Gains of the
97 Paired Cases on the Synonym Context Test
March to May

Test	No.	Mean	S.D.	S.E. Mean	Diff.	S.E. Diff.	C.R.
Initial	97	7.89	6.76	0.69	26.49	1.55	17.09
Final	97	34.38	13.69	1.39			

In the initial testing, the mean score was 7.89 and the standard deviation was 6.76. In the final testing the mean score was 34.38 and the standard deviation was 13.69. The mean gain was 26.49. The critical ratio of 17.09 indicated a very significant gain at the 1% level.

Table 33 shows the gains of the 97 cases from the control group on the synonym context test in the initial March testing and the final May testing.

Table 33

Control Group Gains of the 97
Paired Cases on the Synonym Context
Test - March to May

Group	No.	Mean	S.D.	S.E.M.	Diff.	S.E. Diff.	C.R.
Control							
Initial	97	7.41	5.69	0.58			
Final		14.00	8.30	0.94	6.59	1.10	5.90

In the initial testing the mean score was 7.41 and the standard deviation was 5.69. The final mean score was 14.00 and the standard deviation was 8.30. The mean difference was 6.59. The critical ratio was 5.90 which was very significant at the 1% level.

Table 34 compares the gains made by the 97 paired cases in the initial March testing and the final May testing on the synonym context test.

Table 34

Comparison of the Mean Gains of the
97 Paired Cases on the Synonym Context Test
March to May

Group	No.	Mean Gain	S.E.	Diff.	S.E. Diff.	C.R.
Experimental	262	26.49	1.55	19.90	1.90	10.47
Control	254	6.59	1.10			

The mean gain of the experimental cases was 26.49 and the standard error of the gain was 1.55. The mean gain of the control pairs was 6.59 and the standard error of the gain was 1.10. The difference between gains was 19.90 which favored the experimental cases. The critical ratio of 10.47 indicated a gain that was very significant.

Table 35. compares the initial scores of the 97 paired cases on the composition test which was administered in March.

Table 35.
Initial Scores of the 97 Paired Cases on
the Composition Test
March

Group	No.	Mean	S.D.	S.E.M.	Diff.	S.E. Diff.	C.R.
Experimental	97	0.38	0.68	0.07	0.02	0.087	0.231
Control	97	0.40	0.71	0.07			

The mean score of the experimental cases was 0.38 and the standard deviation was 0.68. The mean score of the control cases was 0.40 and the standard deviation was 0.71. The difference between scores was 0.02 which favored the control group very slightly. There was no significant difference in the initial scores by the 97 paired cases on the composition test, as the critical ratio was 0.231.

Table 36 compares the final scores of the 97 paired cases on the composition test which was administered in May.

Table 36

Final Scores of the 97 Paired Cases on the Composition Test

May

Group	No.	Mean	S.D.	S.E. Mean	Diff.	S.E. Diff.	C.R.
Experimental	97	4.25	2.47	0.251	1.38	1.20	1.15
Control	97	2.87	9.89	1.004			

The final score of the experimental cases was 4.25 and the standard deviation was 2.47. The final score of the control cases was 2.87 and the standard deviation was 9.89. The difference between the scores was 1.38 which favored the experimental cases. The critical ratio of 1.15 was not significant, since 1.96 was the 5% level of significance.

Table 37 shows the gains of the 97 experimental cases on the composition test in the initial March testing and the final May testing.

Table 37
Experimental Group Gains of the
97 Paired Cases on the Composition Test
March to May

Group	No.	Mean	S.D.	S.E.M.	Diff.	S.E. Diff.	C.R.
Initial	97	0.38	0.68	0.07	3.89	0.258	15.07
Final		4.25	2.47	0.25			

The initial score was 0.38 and the standard deviation was 0.68. The final score was 4.25 and the standard deviation was 2.47. The difference between the two mean scores was 3.89. The critical ratio of 15.07 indicated a very significant gain at the 1% level.

Table 38. compares the scores of the control cases on the composition test in the initial March testing and the final May testing.

Table 38

Control Group Gains of the 97 Paired Cases
on the Composition Test
March to May

Test	No.	Mean	S.D.	S.E.M.	Diff.	S.E. Diff.	C.R.
Initial	97	0.40	0.71	0.07			
Final		2.87	9.89	1.00	2.47	1.00	2.47

The initial mean score was 0.40 and the standard deviation was 0.71. The final mean score was 2.87 and the standard deviation was 9.89. The difference between the two mean scores was 2.47. The critical ratio of 2.47 was significant at the 5% level. Since 2.57 was the significant level, 2.47 was just under the significant figure at the 1% level.

Table 39 shows the gains of the 97 paired cases on the composition test from the initial March testing to the final May testing.

Table 39
Comparison of the Mean Gains of the
97 Paired Cases on the Composition Test
March to May

Group	No.	Mean Gain	S.E. Gain	Diff.	S.E. Diff.	C.R.
Experimental	262	3.89	0.258	1.42	1.03	1.38
Control	254	2.47	1.00			

The gain of the experimental group was 3.89 and the standard error of the gain was 0.258. The gain of the control group was 2.47 and the standard error of the gain was 1.00. The difference between the mean gains was 1.38 which favored the experimental matched pairs.

Final Data for Matched Pairs on Ability
to Spell Words Accurately

Table 40. compares the final scores of the 97 paired cases on the spelling inventory which was administered in May.

Table 40.

Final Scores of the 97 Paired Cases on the
Spelling Inventory
May

Group	No.	Mean	S.D.	S.E.M.	Diff.	S.E. Diff.	C.R.
Experimental	97	58.35	12.12	1.23	3.54	1.81	1.96
Control		54.81	13.93	1.41			

The final score of the experimental paired cases was 58.35 and the standard deviation was 12.12. The final score of the control paired cases was 54.81 and the standard deviation was 13.93. The difference between the scores was 3.54. The critical ratio of 1.96 was significant at the 5% level.

Table 41. shows the gains of the experimental paired cases on the spelling inventory from the initial March testing to the final May testing.

Table 41.
Experimental Gains of the 97 Paired
Cases on the Spelling Inventory
March to May

Test	No.	Mean	S.D.	S.E.M.	Diff.	S.E. Diff.	G.R.
Initial	97	36.46	14.34	1.46	21.89	1.91	11.40
Final		58.35	12.12	1.23			

The initial mean score was 36.46 and the standard deviation was 14.34. The final mean score was 58.35 and the standard deviation was 12.12. The difference between the scores was 21.89. The critical ratio of 11.40 was very significant at the 1% level.

Table 42. shows the gains of the control paired cases on the spelling inventory from the initial March testing to the final May testing.

Table 42.

Control Group Gains of the 97 Paired Cases on the
Spelling Inventory
March to May

Test	No.	Mean	S.D.	S.E.M.	Diff.	S.E. Diff.	C.R.
Initial	97	36.56	14.29	1.45	17.25	1.83	9.42
Final		54.81	13.93	1.21			

The initial mean score was 36.56 and the standard deviation was 14.29. The final mean score was 54.81 and the standard deviation was 13.93. The difference between these scores was 17.25, The critical ratio was 9.42 which was a very significant gain at the 1% level.

Table 43 compares the gains made by the 97 paired cases on the spelling inventory test from the initial March testing to the final May testing.

Table 43
Comparison of the Gains by the 97 Paired
Cases on the Spelling Inventory
March to May

Group	No.	Gain	S.E. Gain	Diff.	S.E. Diff.	C.R.
Experimental	262	21.89	1.91			
Control	254	17.25	1.83	4.64	2.64	1.76

The mean gain of the experimental group was 21.89 and the standard error of the gain was 1.91. The gain of the control group was 17.25 and the standard error of the gain was 1.83. The difference between the gains was 4.64 favoring the experimental group. The critical ratio was 1.76 which was not significant at the 5% level since 1.96 was the figure used for significance at this level.

Table 44 compares the final scores of the 97 paired cases in the May testing on the Metropolitan Achievement Test in Spelling.

Table 44

Final Scores of the 97 Paired Cases on the Metropolitan Spelling Achievement Test

May

Group	No.	Mean	S.D.	S.E.M.	Diff.	S.E. Diff.	C.R.
Experimental	97	64.15	10.93	1.11	1.10	1.54	0.714
Control		63.05	10.55	1.07			

The 97 experimental cases had a mean score of 64.15 and the standard deviation was 10.93. The 97 control cases had a mean score of 63.05 and the standard deviation was 10.55. The difference between the two scores was 1.10. The critical ratio was 0.714 which was not statistically significant.

Table 45 shows the mean gains of the 97 experimental paired cases on the Metropolitan Achievement Test from the initial March testing to the final May testing.

Table 45
Mean Gains of the 97 Cases in the
Experimental Group on the
Metropolitan Achievement in Spelling
March to May

Test	No.	Mean	S.D.	S.E.M.	Diff.	S.E. Diff.	C.R.
Initial	97	60.58	10.65	1.08			
Final		64.15	10.93	1.11	3.57	1.55	2.30

The initial mean score was 60.58 and the standard deviation was 10.65. The final mean score was 64.15 and the standard deviation was 10.93. The difference between the two mean scores was 3.57. The critical ratio of 2.30 indicated that this gain was significant at the 5% level since 1.96 was the ratio indicating significance at this level, but not significant at the 1% level.

Table 46 shows the gains of the 97 control cases from the initial March testing to the final May testing on the Metropolitan Spelling Achievement Test.

Table 46
Control Group Gains of the 97 Paired Cases
on the Metropolitan Spelling Achievement Test
March to May

Test	No.	Mean	S.D.	S.E.M.	Diff.	S.E. Diff.	C.R.
Initial	97	61.05	10.41	1.06			
Final		63.05	10.55	1.09	2.0	1.58	1.30

The initial mean score was 61.05 and the standard deviation was 10.41. The final mean score was 63.05 and the standard deviation was 10.55. The difference between the two scores was 2.0. The critical ratio was 1.30 which was not a statistically significant gain.

Table 47. compares the gains of the 97 paired cases on the Metropolitan Achievement Test.

Table 47

Comparison of the Mean Gains of the
97 Paired Cases on the Metropolitan
Achievement Test

March to May

Group	No.	Gain	S.E. Gain	Diff.	S.E. Diff.	C.R.
Experimental	262	3.57	1.55	1.57	2.21	0.710
Control	254	2.00	1.58			

The mean gain of the experimental group was 3.57 and the standard error of the gain was 1.55. The mean gain of the control group was 2.0 and the standard error of the gain was 1.57. The difference in gains was 2.21 favoring the experimental group. The critical ratio of 0.710 indicated that the difference in gains was not significant.

Data on the Matched Pairs in the Derived
Form Test

Table 48. compares the scores of the 97 paired cases on the derived form test which was administered in May.

Table 48.

Comparison of Mean Scores of the
97 Paired Cases on the Derived Form Test

Group	No.	Mean	S.D.	S.E.M.	Diff.	S.E. Diff.	C.R.
Experimental	97	34.55	10.98	1.12			
Control	97	30.13	12.92	1.31	4.42	1.73	2.55

The 97 experimental pairs had a mean score of 34.55 and the standard deviation was 10.98. The mean score of the 97 control pairs was 30.13 and the standard deviation was 12.92. The difference between the scores was 4.42 which favored the experimental group. The critical ratio of 2.55 indicated that the experimental group was significantly higher at the 5% level.

Data on the Matched Pairs in the
Definitions Test

Table 49. compares the scores of the 97 paired cases on the definitions test, which was administered in May.

Table 49.

Comparison of Mean Scores of the
97 Paired Cases on the Definitions Test.

Group	No.	Mean	S.D.	S.E.M.	Diff.	S.E. Diff.	C.R.
Experimental	97	14.41	5.64	0.573	3.71	1.23	2.20
Control	97	10.76	9.95	1.09			

The 97 experimental paired cases had a mean score of 14.41 and the standard deviation was 5.64. The 97 control paired cases had a mean score of 10.76 and the standard deviation was 9.95. The difference between the mean scores was 3.71 which favored the experimental group. The critical ratio of 2.20 indicated the gain of the experimental group was statistically significant at the 5% level.

Analysis of Data for the Groups Formed on the
Basis of Spelling Achievement

The experimental group was divided into four sections based on the scores recorded on the Metropolitan Spelling Achievement Test. The sections were as follows:

Group	No.	Scores-Grade Level
Excellent Spellers	95	6.7 and up
Good Spellers	75	5.7 - 6.6
Fair Spellers	48	4.7 - 5.6
Poor Spellers	44	4.6 and below

The data from these achievement sections were analyzed to compare the gains on the synonym context test, the composition measures, and the spelling inventory.

Analysis of the Data on Ability to Transfer
Spelling Words to Written Language

Table 50. compares the initial 1. excellent spellers with the good spellers; 2. the good spellers with the fair spellers; 3 the fair spellers with the poor spellers on the initial scores of the synonym context test.

Table 50.

Comparison of Initial Scores on the
Synonym Context Test by the Four
Achievement Groups
March

Group	No.	Mean	S.D.	S.E. Mean	Diff.	S.E. Diff.	C.R.
Excellent Spellers	95	14.21	8.38	0.860	6.26	1.06	5.90
Good Spellers	75	7.95	8.39	0.622	2.51	0.872	2.84
Fair Spellers	48	5.44	3.93	0.567	3.05	0.660	4.52
Poor Spellers	44	2.39	2.27	0.342			

The initial scores of the four achievement sections of the experimental group were recorded with the following data:

The excellent spellers had a mean score of 14.21 and the standard deviation was 8.38. The good spellers

had a mean score of 7.95 and the standard deviation was 5.39. The fair spellers had a mean score of 5.44 and the standard deviation was 3.93. The poor spellers had a mean score of 2.39 and the standard deviation was 2.27.

In comparing the initial scores made by the achievement groups, the excellent spellers were compared with the good spellers; the good spellers were compared with the fair spellers; the fair spellers were compared with the poor spellers.

The mean difference between the excellent spellers and the good spellers was 6.26 favoring the excellent spellers. The critical ratio of 5.90 indicated that the excellent spellers were significantly higher than the good spellers at the 1% level.

The mean difference on the initial scores between the good and the fair spellers was 2.51 favoring the good spellers. The critical ratio of 2.84 indicated that the good spellers were statistically higher than the fair spellers at the 1% level.

The mean difference between the fair and the poor spellers was 3.05 favoring the fair spellers. The critical ratio of 4.52 indicated that the fair spellers were very significantly higher than the poor spellers.

The excellent spellers were significantly better in the initial testing of the synonym context test than all other groups.

Table 51. compares the final scores of 1. the excellent with the good spellers; 2. the good spellers with the fair spellers; 3. the fair spellers with the poor spellers on the synonym context test.

Table 51.
Comparison of the Final Scores on
the Synonym Context Test
by the Four Achievement Groups
May

Group	No.	Mean	S.D.	S.E.M.	Diff.	S.E. Diff.	C.R.
Excellent	95	46.86	13.70	1.41			
Good	75	34.35	12.47	1.44	12.51	1.74	5.11
Fair	48	30.46	13.31	1.92	3.89	2.40	1.62
Poor	44	21.77	11.82	1.78	8.69	2.64	3.29

The final score of the excellent spellers was 46.86 and the standard deviation was 13.70. The final score of the good spellers was 34.35 and the standard deviation was 12.47. The final score of the fair spellers was 30.46 and the standard deviation was 13.31. The poor spellers had a final score of 21.77 and a standard deviation of 11.82.

The difference between the excellent spellers and the good spellers on the final score was 12.51. The critical ratio of 5.11 was very significant favoring the excellent spellers.

The difference between the good spellers and the fair spellers was 2.40. The critical ratio of 1.62 indicated that there was no significant difference between these groups on the final scores.

The difference between the fair spellers and the poor spellers was 8.69. The critical ratio was 3.29 which indicated that the fair spellers were significantly higher than the poor spellers on the final scores.

Table 52. compares the scores of the excellent spellers on the synonym context test in the initial March testing and the final May testing.

Table 52.
Mean Gains of the Excellent Spellers
on the Synonym Context Test
from
March to May

Test	No.	Mean	S.D.	S.E.M.	Diff.	S.E. Diff.	C.R.
Initial	95	14.21	8.38	0.859			
Final		46.86	13.70	1.41	32.65	1.65	18.77

The initial mean score was 14.21 and the standard deviation of 8.38. On the final testing, the mean score was 46.86 and a standard deviation of 13.70. The mean difference indicated a gain of 32.65. The critical ratio of 18.77 indicated that the gain of the excellent spellers was very significant at the 1% level.

Table 53. compares the scores of the good spellers on the synonym context test in the initial March testing and the final May testing.

Table 53.

Mean Gains of the Good Spellers
on the Synonym Context Test
from
March to May

Test	No.	Mean	S.D.	S.E.M.	Diff.	S.E. Diff.	C.R.
Initial	75	7.95	5.39	0.622			
Final		34.35	12.47	1.440	26.40	1.56	16.90

The initial mean score of the good spellers was 7.95 and the standard deviation was 5.39. The final mean score was 34.35 and the standard deviation was 12.47. The difference between the two scores indicated a gain of 26.40. The critical ratio was 16.90 which indicated that the gain of the good spellers was very significant at the 1% level.

Table 54. compares the scores of the fair spellers on the synonym context test in the initial March testing and the final May testing.

Table 54.

Mean Gain of the Fair Spellers
on the Synonym Context Test
from
March to May

Test	No.	Mean	S.D.	S.E.M.	Diff.	S.E. Diff.	C.R.
Initial	48	5.44	3.93	0.567			
Final		30.46	13.31	1.921	25.02	2.00	12.51

The initial mean score was 5.44 and the standard deviation was 3.93. The final score was 30.46 and the standard deviation was 13.31. The difference between the scores was 25.02. The critical ratio of 12.51 indicated that the gain of the fair spellers was very significant at the 1% level.

Table 55. compares the scores of the poor spellers on the synonym context test in the initial March testing and the final May testing.

Table 55.
Mean Gains of the Poor Spellers
On the Synonym Context Test
March to May

Test	No.	Mean	S.D.	S.E.M.	Diff.	S.E. Diff.	C.R.
Initial	44	2.39	2.27	0.342			
Final		21.77	11.82	1.78	19.36	1.79	10.81

The initial mean score was 2.39 and the standard deviation was 2.27. The final mean score was 21.77 and the standard deviation was 11.82. The mean difference between the scores was 19.36. The critical ratio of 10.81 indicated that the poor spellers made a gain that was very significant at the 1% level.

Table 56. shows the gains made by 1. the excellent spellers as compared to the good spellers; 2. the gains made by the good spellers as compared to the fair spellers; 3. the gains made by the fair spellers as compared to the poor spellers.

Table 56.

Comparison of Mean Gains on Synonym Context Test
March to May

Group	No.	Mean Gain	S.E. Gain	Diff.	S.E. Diff.	C.R.
Excellent	95	32.65	1.65			
Good	75	26.40	1.56	6.25	2.27	2.75
Fair	48	25.02	2.00	1.38	2.53	0.545
Poor	44	19.36	1.79	5.66	2.69	2.10

The mean gain of the excellent spellers was 32.65 and the standard error was 1.65. The mean gain of the good spellers was 26.40 and the standard error was 1.56. The difference in gains was 6.25 favoring the excellent spellers. The critical ratio was 2.75 which indicated that the gain of the excellent spellers was significant at the 1% level.

The mean gain of the fair spellers was 25.02 and the standard deviation was 2.0. The mean gain of the good spellers was 26.40. The difference between the gains was 1.38. The critical ratio of 0.545 indicated there was no

significant gain of the good spellers over the fair spellers.

The mean gain of the poor spellers was 19.36 and the standard error of the gain was 1.79. The difference in gains of the fair speller as compared with the poor speller was 5.66. The critical ratio of 2.10 was significant at the 5% level, since 2.57 was the figure of significance at the 1% level.

It was evident in the above findings that the excellent spellers made better gains on the synonym context test than the poor spellers. To determine the significance of the difference, the mean gains of the two groups were compared. The following table shows the comparison.

Table 57. compares the gains made by the excellent spellers with the gains made by the poor spellers on the synonym context test from March to May.

Table 57.

Comparison of Mean Gains of the Excellent
and Poor Spellers on the Synonym Context Test
from
March to May

Group	No.	Gain	S.E. Gain	Diff.	S.E. Diff.	C.R.
Excellent	95	32.65	1.65	13.29	2.75	4.83
Poor	44	19.36	1.79			

The excellent spellers had a mean gain of 32.65 and the standard error was 1.65. The poor spellers had a mean gain of 19.36 and the standard error was 1.79. The difference between the gains was 13.29. The critical ratio of 4.83 indicated that the gain of the excellent spellers was very significant at the 1% level.

Table 58 compares the initial scores of the; 1. excellent spellers with the good spellers; 2. the good spellers with the fair spellers; and 3. the fair spellers with the poor spellers on the composition test.

Table 58

Initial Scores of the Four Achievement Groups on
the Composition Test

March

Group	No.	Mean	S.D.	S.E.M.	Diff.	S.E. Diff.	C.R.
Excellent	95	0.82	0.87	0.089			
Good	75	0.28	0.50	0.058	0.54	0.033	16.33
Fair	48	0.21	0.41	0.059	0.07	0.024	2.91
Poor	44	0.20	0.69	0.104	0.01	0.037	0.270

The excellent spellers had a mean score of 0.82 and the standard deviation of 0.87. The good spellers had a mean score of 0.28 and a standard deviation of 0.50. The fair spellers had a mean score of 0.21 and the standard deviation of 0.41. The poor spellers had a mean score of 0.20 and the standard deviation of 0.69.

The difference between the excellent and the good spellers was 0.54. The critical ratio was 16.33 which indicated that the excellent spellers were significantly higher on the initial test.

The difference between the good spellers and

the fair spellers was 0.07 which favored the good spellers slightly. The critical ratio of 2.91 indicated that the fair spellers were significantly higher on the initial test.

The difference between the fair spellers and the poor spellers was 0.01. The critical ratio of 0.270 indicates there was no significant difference between the fair and the poor spellers.

Table 59 compares the final scores of the; 1, excellent spellers with the good spellers; 2, the good spellers with the fair spellers; 3, the fair spellers with the poor spellers.

Table 59

Final Scores of the Four Achievement Sections on
the Composition Test

March to May

Group	No.	Mean	S.D.	S.E.M.	Diff.	S.E. Diff.	C.R.
Excellent	95	5.69	3.01	0.308	0.96	1.92	0.50
Good	75	4.73	2.68	0.309	0.75	1.03	0.728
Fair	48	3.98	2.39	0.345	1.12	0.482	2.32
Poor	44	2.86	2.17	0.337			

The final mean score of the excellent spellers was 5.69 and the standard deviation was 3.01. The final score of the good spellers was 4.73 and the standard deviation was 2.68. The difference between the final scores was 0.96 which favored the excellent spellers slightly. The critical ratio of 0.50 was not significant.

The final mean score of the fair spellers was 3.98 which was compared with the final mean score of the

good spellers which was 4.73. The difference between the scores was 0.75 which favored the good spellers slightly. The critical ratio of 0.728 was not significant statistically.

The final mean score of the poor spellers was 2.86 which made a difference of 1.12 in comparison with the mean score of the fair spellers which was 3.98. The critical ratio was 2.32 which was statistically significant at the 5% level, but was under the figure, 2.57 at the 1% level.

Table 60 compares the scores of the excellent spellers on the composition test in the initial March testing and the final May testing.

Table 60

Mean Gains of the Excellent Spellers on the
Composition Test

March to May

Test	No.	Mean	S.D.	S.E.M.	Diff.	S.E. Diff.	C.R.
Initial	0.95	0.82	0.87	0.09			
Final		5.69	3.01	0.31	4.87	0.32	15.21

The initial mean score was 0.82 and the standard deviation was 0.87. The final mean score was 5.69 and the standard deviation was 3.01. The difference between the scores was 4.87. The critical ratio of 48.21 indicated a very significant gain.

Table 61 compares the scores of the spellers on the composition tests which were administered in March and in May.

Table 61

Mean Gains of the Good Spellers on the
Composition Test

March to May

Test	No.	Mean	S.D.	S.E.M.	Diff.	S.E. Diff.	C.R.
Initial	75	0.28	0.50	0.06			
Final		4.73	2.68	0.31	4.45	0.30	14.8

The initial mean score was 0.28 and the standard deviation was 0.50. The final mean score was 4.73 and the standard deviation was 2.68. The mean gain was 4.45. The critical ratio indicated that the gain was very significant at the 1% level.

Table 62 compares the scores of the fair spellers on the composition tests which were administered in March and May.

Table 62

Mean Gains of the Fair Spellers on the
Composition Test

March to May

Test	No.	Mean	S.D.	S.E.M.	Diff.	S.E. Diff.	C.R.
Initial	48	0.21	0.41	0.06			
Final		3.98	2.39	0.35	3.77	0.36	10.40

The initial mean score was 0.21 and the standard deviation was 0.41. The final mean score was 3.98 and the standard deviation was 2.39. The difference between the scores was 3.77. The critical ratio was 10.40 which indicates that the gain was very significant.

Table 63 compares the scores of the poor spellers on the composition tests which were administered in March and May.

Table 63
Mean Gains of the Poor Spellers on the
Composition Test

Test	No.	Mean	S.D.	S.E.M.	Diff.	S.E. Diff.	C.R.
Initial	44	0.20	0.69	0.10			
Final		2.86	2.17	0.33	2.66	0.35	7.60

The initial mean score was 0.20 and the standard deviation was 0.69. The final mean score was 2.86 and the standard deviation was 2.17. The difference between the scores was 2.66. The critical ratio was 7.6 which indicated a very significant gain by the poor spellers.

Table 64 compares the gains of 1, the excellent spellers with the good spellers; 2, the good spellers with the fair spellers; 3, the fair spellers with the poor spellers on the composition measures which were administered in March and in May.

Table 64

Comparison of Gains of the Four Achievement Groups on the Composition Measures

Group	No.	Mean Gain	S.E. Gain	Diff.	S.E. Diff.	C.R.
Excellent	95	4.87	0.32			
Good	75	4.45	0.30	0.42	0.435	0.965
Fair	48	3.77	0.36	0.68	0.467	1.45
Poor	44	2.66	0.35	1.11	0.509	2.18

The excellent spellers made a mean gain of 4.87 and the good spellers made a gain of 4.45. The difference between the gains was 0.42 which favored the excellent spellers slightly. The critical ratio of 0.965 was not significant.

The fair spellers had a mean gain of 3.77 which was compared with the mean gain of the good spellers, which was 4.45. The difference between the

gains was 0.68 which favored the good spellers slightly. The critical ratio of 1.45 was not significant since it was lower than 1.96, the 5% level of significance.

The poor spellers had a mean gain of 2.66 which was compared with the gain of the fair spellers, which was 3.77. The difference between gains was 1.11, which favored the fair spellers. The critical ratio of 2.18 was statistically significant at the 5% level.

Analysis of data on the ability to spell words accurately.--

Table 65 compares the initial scores of the four achievement groups on the spelling inventory. Comparison is made of the excellent and the good spellers; the good spellers and the fair spellers; the fair spellers and the poor spellers.

Table 65

Initial Scores of the Four Achievement Groups
on the Spelling Inventory

March

Groups	No.	Mean	S.D.	S.E.M.	Diff.	S.E. Diff.	C.R.
Excellent	95	53.77	12.48	1.29			
Good	75	37.51	10.70	1.24	16.26	1.78	9.13
Fair	48	29.50	9.90	1.43	8.01	1.83	4.32
Poor	44	14.50	9.02	1.36	15.00	1.97	7.61

The mean score of the excellent spellers was 53.77 and the standard deviation was 12.48. The mean of the good spellers was 37.51 and the standard deviation was 10.70. The mean of the fair spellers was 29.50 and the standard deviation was 9.90. The mean of the poor spellers was 14.50 and the standard deviation was 9.02.

The difference between the scores of the excellent spellers and the good spellers was 16.26. The critical ratio of 9.13 indicated that the excellent spellers were significantly higher at the 1% level in the initial test than the good spellers.

The difference between the scores of the good spellers and the fair spellers was 8.01, favoring the good spellers. The critical ratio of 4.32 indicated that the good spellers were significantly higher at the 1% level in the initial test.

The difference between the fair spellers and the poor spellers was 15.00 favoring the fair spellers. The critical ratio of 7.61 was very significant at the 1% level. The fair spellers were significantly higher on the initial test.

Table 66 compares the final scores of the four achievement groups on the spelling inventory. Comparison is made of the excellent spellers with the good spellers; the good spellers with the fair spellers; the fair spellers with the poor spellers.

Table 66

Final Scores of the Four Achievement Groups
on the Spelling Inventory

May

Group	No.	Mean	S.D.	S.E.M.	Diff.	S.E. Diff.	C.R.
Excellent	95	68.0	5.33	0.547			
Good	75	59.96	8.17	0.943	8.04	1.09	7.37
Fair	48	54.08	10.87	1.57	5.88	1.82	3.23
Poor	44	37.89	11.50	1.73	16.19	2.33	6.94

The final mean score of the excellent spellers was 68.0 and the final mean score of the good spellers was 59.96. The difference was 8.04 which favored the excellent spellers. The critical ratio of 7.37 indicated that the final mean score was significantly higher than the final mean of the good spellers.

The final mean score of the good spellers was 59.96, and the final mean score of the fair spellers was

54.08. The difference between the scores was 5.88, favoring the good spellers. The critical ratio of 3.23 was statistically very significant to the final score of the good spellers.

The final mean of the fair spellers was 54.08 and the final mean score of the poor spellers was 37.89. The difference between the scores was 16.19, favoring the fair spellers. The critical ratio of 6.94 was statistically very significant at the 1% level.

Table 67 shows the gains of the excellent spellers on the spelling inventory which was administered in March and May.

Table 67
Mean Gains of the Excellent Spellers on the
Spelling Inventory
March to May

Test	No.	Mean	S.D.	S.E.M.	Diff.	S.E. Diff.	C.R.
Initial	95	53.77	12.48	1.280			
Final		68.00	5.33	0.547	16.55	1.90	8.71

The initial mean score was 53.77 and the standard deviation was 12.48. The final mean score was 68.00 and the standard deviation was 0.547. The difference between the scores was 16.55. The critical ratio was 8.71 which indicated that the gain of the experimental group was very significant at the 1% level.

Table 68 shows the gains of the good spellers on the spelling inventory which was administered in March and May.

Table 68
Mean Gains of the Good Spellers on the
Spelling Inventory
March to May

Test	No.	Mean	S.D.	S.E.M.	Diff.	S.E. Diff.	C.R.
Initial	75	37.51	10.70	1.235			
Final		59.96	8.17	0.943	22.45	1.52	14.11

The initial mean score was 37.51 and the standard deviation was 10.70. The final mean score was 59.96 and the standard deviation was 8.17. The difference between the scores was 22.45. The critical ratio of 14.11 indicated a very significant gain at the 1% level for the good spellers on the spelling inventory.

Table 69 shows the mean gains of the fair spellers on the spelling inventory which was administered in March and in May.

Table 69
Mean Gains of the Fair Spellers on the
Spelling Inventory
March to May

Test	No.	Mean	S.D.	S.E.M.	Diff.	S.E. Diff.	C.R.
Initial	48	29.50	9.90	1.43			
Final		54.08	10.87	1.59	26.83	2.50	10.73

The initial mean score was 29.50 and the standard deviation was 9.90. The final mean score was 54.08 and the standard deviation was 10.87. The difference between the scores was 26.83. The critical ratio of 10.73 indicated a very significant gain by the fair spellers.

Table 70. shows the gains of the poor speller on the spelling inventory which was administered in March and in May.

Table 70.

Mean Gains by Poor Spellers on the Spelling Inventory
March to May

	No.	Mean	S.D.	S.E.M.	Diff.	S.E. Diff.	C.R.
Initial	44	14.50	9.02	1.36			
Final		37.89	11.50	1.73	23.39	2.20	10.63

The initial mean score was 14.50 and the standard deviation was 9.02. The final mean score was 37.89 and the standard deviation was 11.50. The difference between the two means was 23.39. The critical ratio was 10.63 which indicated that the gain of the poor spellers was very significant at the 1% level.

Table 71. compares the gains of the excellent spellers with the good spellers; the good spellers with the fair spellers; and the fair spellers with the poor spellers on the spelling inventory.

Table 71.

Comparison of Gains on the Spelling Inventory

Group	No.	Mean Gain	S.E. of Gain	Diff.	S.E. of Diff.	C.R.
Excellent	95	16.55	1.90			
Good	75	22.45	1.52	5.90	2.43	2.42
Fair	48	26.83	2.50	4.38	2.92	1.50
Poor	44	23.39	2.20	3.44	3.33	1.03

The mean gain of the excellent spellers was 16.55, and the mean gain of the good spellers was 22.45. The difference between the mean gains was 5.90 which favored the good spellers. The critical ratio of 2.42 indicated that this gain was significant at the 5% level for the good spellers.

The mean gain of the good spellers was 22.45, and the mean gain of the fair spellers was 26.83. The difference between the gains was 4.38. The critical ratio of 1.50 indicated that there was no significant difference between the good spellers and the fair spellers on the spelling inventory.

The mean gain of the fair spellers was 26.83 and the mean gain of the poor spellers was 23.39. The difference between the gains was 3.44. The critical ratio was 1.03 which was not statistically significant.

Investigation of Responses on the Eighty Items
of the Synonym Context Test by the Excellent Spellers

The method of scoring the synonym context test provided that the items which were marked as correct were those responses which used a spelling word as a synonym spelled accurately. If the response was correct in meaning but was not a spelling word, the item was marked wrong. For example, the spelling word desired as a synonym was laughter: some pupils wrote giggles and smiles instead of laughter. These words were marked wrong, because they were not spelling words.

This method of scoring ignored the possibility that the excellent spellers might use words as synonyms which were of higher level than the spelling words. The responses of the excellent spellers on the eighty items of the synonym context test were investigated in order to determine the level of the word used in relation to the spelling word.

In this investigation, 30 pupils from the experimental group and 30 pupils from the control group were selected from the section of excellent spellers, which included the pupils who scored 6.7 or higher on the Metropolitan Spelling Achievement Test (World Book Co., Boston, Mass.). Of these 30 pupils from

each group, 15 had taken Form A of the synonym context test and 15 had taken Form B.

The following chart displays the distribution of the tests:

Synonym Context Test			
Excellent Spellers	Form A	Form B	Total
Experimental	15	15	30
Control	15	15	30

In these tests, a total of 80 responses was a possible final score. Each one of the responses given by the pupils was analyzed.

In doing this analysis, a chart was developed which recorded five items of information:

1. The spelling word expected as a response by the writer.
2. The recording of the number of correct responses.
3. The recording of the number of omissions or wrong responses.
4. The recording of lower level words which were used as responses.
5. The recording of the higher level words which were used as responses.

In determining the level of the words, the Thorndike Lorge, Teachers Word Book of 30,000 Words^{1/} was used as the source. The level of the spelling word desired was found first. This level was then compared with the level of the word which the pupil used as a synonym.

In making this comparison of levels, any word which had a frequency lower than the spelling word was rated as a higher level word; any word which had a frequency higher than the spelling word was rated as a lower level word.

These responses were recorded on a chart so that each category could be counted.

^{1/}Thorndike and Lorge, The Teachers Word Book of 30,000 Words, Bureau of Publications, Teachers College, Columbia University 1952

A sample of the chart which recorded this information was set up in the following manner:

Chart for the Investigation of Responses Made
by the Excellent Spellers
Form A -- Synonym Context Test

Word	Experimental			Control				
	Cor- rect Re- sponse	Omission or In- correct Response	Same or Lower Level Re- sponse	Higher Level Re- sponse	Cor- rect Re- sponse	Omission or In- correct Response	Same or Lower Level Re- sponse	Higher Level Re- sponse
recent	13	0	2	0	13	1	1	0
bold	13	2	0	0	10	5	0	0
laughter	13	2	0	0	5	5	5	0
already	13	1	1	0	9	2	4	0
attend	11	1	3	0	2	10	3	0
power	5	10	0	0	1	14	0	0
record	14	1	0	0	10	5	0	0
title	5	6	4	0	1	10	3	1
million	9	5	0	0	3	12	0	0
problem	13	0	2	1	6	7	2	0

The data from these charts were then analyzed, and the following percentages were determined. The experimental group answered correctly 64% of the items, while the control group answered correctly 33% of the total number of items. This was a difference of 31% which favored the experimental group.

The number of responses which had been either omitted or answered incorrectly by the experimental group was 23%. The control group omitted or answered incorrectly 54% of the responses. The control group had 31% more incorrect or omitted words than the experimental group.

Thirteen percent of the responses remained to be analyzed for use of higher or lower level words. In the experimental group 11% used words of a lower level, and 2% used words of a higher level. In the control group, 12% used lower level words and only 1% used words of a higher level. The experimental group used 1% more words of a higher level than the control group used.

It is evident that in the sampling of the 60 cases of the excellent spellers from both the experimental and the control groups, a very low per cent of higher level words was used by the two groups.

The following table displays the percentages scored on each item investigated for both the experimental and control groups in the synonym context test.

Table 72.

Item Analysis of the Synonym Context Test
for the Excellent Spellers

<u>Categories</u>	<u>Experimental</u>	<u>Control</u>
<u>Correct Responses</u>	64%	33%
<u>Omissions or Incorrect Responses</u>	23%	54%
<u>Lower Level Words or Same</u>	11%	12%
<u>Higher Level Words</u>	2%	1%

Table 72 summarizes the findings as explained on page 182, which indicated the low percent of higher level words used by both groups.

Note: In this investigation of responses on the eighty items of the synonym context test, a "spelling word" is a word which was included in the list of spelling words taught during the eight week period.

Tabulation of Opinions of Pupils Participating
in the Experiment

A preference sheet was distributed to all pupils who participated in the experiment. They were asked to express their opinions on 1) certain types of exercises, which they had tried during the experiment; 2) the teams in which they worked, and 3) the area in which they received the most help.

The questions used in the preference sheet were as follows:

- I. Which exercise did you like best?
 - A. Three words to make one sentence _____
 - B. What might you do if _____
 - C. Topics to write about _____
 - D. Filling in words which mean
the same _____
 - E. Making up what-if stories _____
- II. If you had your choice, would you rather work
 - A. In a team of three _____
 - B. With a partner _____
 - C. By yourself _____
- III. Would you like to change team members
 - A. Every day _____

- B. Once a week _____
- C. Once a month _____
- D. Not at all _____
- IV. In your team
- A. Everyone worked _____
- B. One person did the most _____
- C. One did not help _____
- V. How have the word usage exercises helped you most?
- A. I can write sentences better _____
- B. I know more meanings of words _____
- C. I improved in thinking of ideas _____
- D. I can spell better _____
- E. I like to spell better _____

On surveying the preference of the pupils for types of exercises, the three words to make one sentence was selected as best by 92 pupils or 36%. The second choice was the exercise called "What might you do if?", which 66 pupils or 26% selected as the best. Filling in words from the spelling list which meant the same as the underlined words, was selected by 44 pupils, representing 17%. Thirty pupils or 12% chose topics to write about as their favorite type of exercise.

The topic, making up "What if" stories, was chosen by 28 pupils or 9%. This exercise was added only as a suggestion for the fast moving students. They created their own situations for "What if?". These problems were then exchanged with another team, who wrote suggested solutions to the problem. Only those who had completed the assigned work tried this creative exercise.

The following Table 73. shows the preferences for topics as indicated by the pupils.

Table 73.

Type of Exercise	Number	%
1 Three Words to Make One Sentence	92	36%
2 What Might You Do If?	66	26%
3 Topics to Write About	30	12%
4 Filling in Words Which Mean the Same	44	17%
5 Making Up "What If" Stories	28	9%

In answering the questions, "Would you prefer to work in a team of three, with a partner, or by yourself?", the vote was decidedly in favor of the teams of three, as 152 expressed their preference for this procedure. This represented 59% of the total group. Sixty-one pupils, 23% of the total group, preferred to work with a partner. Forty-one pupils were recorded as

expressing the desire to work alone. This represents 17% of the pupils.

The following table shows the size of teams preferred by the pupils who participated in the experiment.

Table 74.

<u>Size of Team</u>	<u>Number</u>	<u>%</u>
<u>Team of Three</u>	<u>152</u>	<u>59%</u>
<u>With a Partner</u>	<u>61</u>	<u>23%</u>
<u>By Yourself</u>	<u>47</u>	<u>18%</u>

The pupils favored changing team members once a month, with 192 pupils, or 74% of the total number, expressing preference for the change at this time. No one wanted to change members every day, but 21 desired to change once a week. These 21 represented only 8% of the pupils. Forty-seven pupils or 18% did not want to change team members at all.

In order to investigate the feeling of the pupils in regards to the efficiency of their team members, their opinions were sought on workers within the group. The majority of pupils felt that everyone in the group worked, as 177 pupils, or 68%, checked this item. Sixty-three pupils, representing 24%, felt that one person did the

most work in the group. Only 18 students, 8%, said that one member did not help at all.

In selecting two ways in which the pupils thought that these exercises helped the most, 194 pupils felt that they could write sentences better. One hundred and seventy said that they had improved in thinking of ideas. These two areas received the majority of selections.

Seventy-one students checked the item that they knew more meanings of words. The ability to spell better was selected by 62 pupils, while the item which stated, "I like to spell better", was checked by 22 pupils.

The distribution of preferences is listed below.

The following table shows the distribution of responses on time which pupils would like team members to be changed.

Table 75.

Change of Team Members

<u>When to Change</u>	<u>Number</u>
<u>Every Day</u>	<u>0</u>
<u>Once a Week</u>	<u>21</u>
<u>Once a Month</u>	<u>192</u>
<u>Not At All</u>	<u>47</u>

Table 76. shows how the pupils felt about the work accomplished by team members:

Table 76.
Team Participation

<u>In Your Team</u>	<u>Number</u>
<u>Everyone Worked</u>	<u>177</u>
<u>One Person Did Most</u>	<u>63</u>
<u>One Did not Help</u>	<u>18</u>

With 177 pupils stating that everyone in their team worked, this figure represented 68% of the number in the experiment. Sixty-three pupils felt that one person did the most work, which was 26% of the total number of pupils. There were 18 pupils who stated that one pupil did not help in the team, which represented only 6% of the total number. It is evident that the largest percent of the pupils felt that each member of the team was an active participant.

Tabulation of the Preferences of Teachers
on the Plan and Procedure of the Experiment

The eight teachers who participated in the experiment reported their preferences on the method used and the procedures followed in grouping.

Four teachers expressed the feeling that this method of teaching spelling was best suited to the bright student, while three teachers felt that all students profited by the actual usage of the words. The one remaining teacher checked the average pupils as showing very good gains.

In comparing this method with the one used previously six teachers said that the use of the spelling words in language situations made the method stronger. One teacher added the comment "Especially stronger for the bright child."

Another teacher said that she felt that this method had helped greatly in language, but not as much in the actual learning of the spelling words.

In lining up the strengths of this program, the teachers contributed the following remarks;

The method had strength as it:

1. Increased the ability to use different forms of the words.

2. Increased the ability to use spelling words in a variety of interesting situations.
3. Increased their knowledge of words as they used them.
4. Gave pupils the opportunity to use their imaginations.
5. Enlarged the writing vocabularies.
6. Increased the ability to use good sentences.
7. Aroused interest in writing, especially the creative type.
8. Increased the power to use descriptive words more accurately.
9. Developed an understanding of synonyms.
10. Gave pupils the enjoyment of sharing ideas.
11. Presented the opportunity to meet the spelling words in advance as the words of the month were used in the exercises.
12. Increased ability to use prefixes and suffixes as they were needed to make the word accurate in the sentence.

The weaknesses which the teachers found in the study were:

1. Not sufficient practice in phonics as an aid to spelling.
2. Not enough time for the slower pupils to develop ideas and write them.
3. Not sufficient study time for the words being learned.

In considering the grouping, all eight teachers stated that grouping was successful in carrying out this spelling study. The opinion was expressed that the slow groups had increased their interest in spelling, and enjoyed the sharing of ideas and the immediate checking of the spelling.

Four teachers felt that groups should be changed once a month; the other four teachers felt they should remain the same.

Seven of the eight teachers preferred the team of three, while one thought that pairs might work out better.

In questioning the amount of transfer, seven stated that there was a definite carry-over into their written language. One teacher expressed the feeling that there was little transfer for the poor speller, but much transfer for the excellent speller.

All the teachers expressed the opinion that the greatest value came from sharing ideas, and the actual usage of the words being studied.

The complete Preference Sheet for Teachers may be found in the Appendix.

CHAPTER V

SUMMARY AND CONCLUSIONS

In this study, an investigation was conducted to discover the effect of specific training through word usage exercises on transfer to written language situations.

1. Do children transfer the spelling words to written language situations?
2. Do children learn to spell more accurately the assigned spelling words when they have been stimulated to use them in written language situations?
3. Do children learn to spell the derived forms of the spelling words as they are needed in written language exercises.
4. Do children increase their understanding of meanings of spelling words through written usage?

To conduct this experiment, eight classrooms were selected for the experimental group, and eight classrooms for the control group in a city which is highly industrialized.

The eight classrooms which were selected in the experimental group gave a final population of 262 pupils.

The eight classrooms which were selected in the control group gave a final population of 254 pupils.

The teachers were equated on the basis of years of experience and the rating of the teacher in the opinion of the supervisors of elementary education and the principal of the school in which they taught.

In carrying out the plans of this study, word usage exercises were written by the pupils on three days of the week, Tuesday, Wednesday, and Thursday. These exercises involved the words of the month plus their derived forms. To check the accuracy of spelling, the pupils turned to the reference sheet, which listed alphabetically the spelling words of the month and their derivatives. On the other two days of the week, Monday and Friday, the words were introduced and then tested.

The pupils worked in teams of three, homogeneously grouped in order to discuss and write the word usage exercises.

The procedure of the control group was that suggested by Word Mastery Speller,^{1/} the textbook.

To measure the gains in transfer of spelling words, the synonym context test and the composition measures were used. For determining gains in accuracy of spelling, the spelling inventory and the Metropolitan Achievement Test^{2/} were presented. The ability to use derivatives of spelling words and spelling words as synonyms was measured by tests designed by the writer.

In determining the gains, comparisons were made on the entire experimental and control groups; on 97 matched pairs; and on the experimental group, divided into four achievement sections; the excellent, the good, the fair, and the poor.

^{1/} Patton, David H., Word Mastery Speller, C. E. Merrill Co. 1951

^{2/} Metropolitan Achievement Test, World Book Company, Boston, Massachusetts

The data were analyzed to ascertain:

1. The likeness of the experimental and control groups in chronological age, mental age, intelligence quotient, the results of the synonym context test, the composition test, the spelling inventory and the Metropolitan Achievement Test. These data were compiled in March.
2. The gains of the total experimental and control groups on the tests of spelling transfer, the synonym context test and the Composition test; on the tests of spelling accuracy, the spelling inventory and the Metropolitan Achievement Test; on the test of derived form; and on the test of definitions. The statistics were compiled from March and May data.
3. The gains of 97 matched pairs from the experimental and control groups on the tests of spelling transfer, the synonym context test and the composition test; on the tests of spelling accuracy, the spelling inventory and the Metropolitan Achievement Test; on the test of derived forms; and on the test of definitions.

4. The gains of four achievement sections from the experimental group on the tests of spelling transfer, the synonym context test and the composition test; and on the test of spelling accuracy, the spelling inventory.

These four sections were selected from the experimental group on the basis of the results of the Metropolitan Spelling Achievement Test. The excellent spellers scored 6.7 and up; the good spellers scored 5.7 to 6.6; the fair spellers scored 4.7 to 5.6; the poor spellers scored 4.6 and below.

The statistics were compiled on the March and May data.

I. DETERMINING THE LIKENESS OF THE GROUPS

A. Chronological Age

There was no significant difference as the mean age of the experimental group was 10.23, and the mean age of the control group was 10.16. Although slight, 0.07, the advantage favored the experimental group.

B. Mental Age

The mean mental age of the experimental group was 10.62 as compared to 10.79 for

the control group. There was no statistically significant difference between the two groups on mental age, although the advantage was slightly in favor of the control group.

C. Intelligence Quotient

The mean intelligence quotient of the experimental group was 104.92 as compared to 106.59 for the control group. The critical ratio of 1.59 showed no statistically significant differences but indicated an advantage for the control group.

D. Synonym Context Test

On the synonym context test, the control group had a mean score of 10.98 as compared to 8.82 for the experimental group. The critical ratio of 2.63 showed a statistically significant difference in favor of the control group.

E. Composition Test

There was no statistically significant difference between the experimental and control groups as the initial mean scores

were 0.45 and 0.47 respectively. The slight advantage favored the control group.

F. Spelling Inventory

On the spelling inventory, the mean score of the experimental group was 38.07 as compared to 44.52 for the control group. The critical ratio of 4.30 showed that the difference between the groups was statistically very significant.

G. Metropolitan Spelling Achievement

On the Metropolitan Spelling Achievement Test, the mean score of the experimental group was 60.25 as compared to 66.91 for the control group. The difference was 6.66, favoring the control group. There was a statistically significant difference between the groups.

From the preceding data, it was determined that the control group was significantly higher on synonym context test, spelling inventory, and the Metropolitan Achievement Test. On the composition test, and on intelligence quotient, the control group was slightly higher.

Therefore, it was necessary to match pairs of cases in the experimental and the control groups in order to compare the gains with accuracy.

The writer analyzed the total data before proceeding to the data on matched pairs.

II. CONCLUSIONS FROM DATA ON TOTAL POPULATION

A. Ability of Children to Transfer Spelling Words to Written Language on Spelling Inventory and Metropolitan Achievement Test

1. From the evidence it appears that the experimental group had more transfer to written language from March to May.

- a. The mean gain of the experimental group on the synonym context test was 27.24 as compared to 6.71 for the control group from March to May. The mean difference between gains was 20.53 which favored the experimental group. The critical ratio was 13.96 which showed a statistically signifi-

cant difference.

- b. The mean gain of the experimental group on the composition test was 4.18 as compared to 2.20 for the control. The difference between mean gains was 1.98 which favored the experimental group. The critical ratio of 14.45 showed a difference in gains which was statistically significant for the experimental group.

B. Determining the Ability to Spell Words Accurately on Spelling Inventory and Metropolitan Achievement Test

1. From the evidence it appears that the experimental group spelled words more accurately than the control group on the spelling inventory and the Metropolitan Achievement Test.

- a. On the spelling inventory test, the mean gain of the experimental group was 20.02 and the mean gain of the control group was 15.52.

The difference between the gains was 1.88, favoring the experimental group. The critical ratio of 2.39 indicated a statistically significant gain for the experimental group at the 5% level. The ratio of 2.39 was below 2.57 for significance at the 1% level.

- b. On the Metropolitan Achievement Test in Spelling, the mean gain of the experimental group was 4.19, and the mean gain of the control group was 1.80. The difference between the gains was 2.39 which favored the experimental group. The critical ratio of 1.57 indicated there was no statistically significant difference between groups. The advantage did favor the experimental group.

C. Determining the Ability to Spell the
Derived Forms of the Spelling Words

1. From the evidence it appears that there was no significant difference in the ability to use the derived forms of the spelling words.

a. The mean score of the experimental group was 35.12 and the mean score of the control group was 34.31. The difference between the means was 0.81 which favored the experimental group slightly. There was no statistically significant difference between the groups.

D. Determining the Ability to Write the
Spelling Words as Definitions

1. From the evidence it appears that the results of the experimental group favored the experimental group.

a. The mean score of the experimental group was 15.13 as compared to 11.28 for the control

group. The difference between scores was 3.85 favoring the experimental group. The critical ratio of 6.59 showed that there was a statistically significant difference between the scores.

III. CONCLUSIONS FROM DATA ON 97 MATCHED PAIRS

A. Determining the Likeness of the Pairs

1. From the evidence it seems that the pairs are equated for three variables; mental age, spelling inventory and Metropolitan Achievement Test.

a. The mean mental age of the experimental cases was 10.54 and the control group mean was 10.53. There was no statistically significant difference as the difference was only 0.01.

b. The mean score of the experimental cases on the spelling inventory was 36.46 and the mean score of the control group was 36.56. The slight difference of

0.10 favored the control group.

There was no statistically significant difference.

- c. The mean score of the experimental group on the Metropolitan Achievement Test was 36.46 as compared to 36.56 for the control group. The slight difference was 0.10 which favored the control group. There was no statistically significant difference.

B. Determining the Ability to Transfer Spelling Words to Written Language Situations

1. The matched pairs of the experimental group gained more in the ability to transfer spelling words to written language on the synonym context test and the composition test.

- a. On the synonym context test, the experimental cases gained 26.49 and the control cases made a mean gain of 6.59. The difference between the gains was

19.90 which favored the experimental group. The critical ratio of 10.47 showed a statistically significant difference in favor of the experimental group.

- b. On the composition test, the mean gain of the experimental group was 3.89 as compared to 2.47 for the control group. The difference between the gains was 1.42. The critical ratio of 1.42 did not show a difference that was statistically significant, but the advantage did favor the experimental group.

C. Determining the Ability to Spell Words Accurately on Spelling Inventory and the Metropolitan Achievement Test

1. The experimental group of matched cases spelled words more accurately, but the difference was not

statistically significant.

a. On the spelling inventory, the mean gain of the experimental group was 21.89 as compared to 17.25 for the control group. The difference between the mean gains was 4.64 favoring the experimental group. The critical ratio of 1.76 was under the 1.96 for the 5% level. There was no statistically significant difference between the groups.

b. On the Metropolitan Achievement Test, the experimental mean gain was 3.57, and the control mean gain was 2.0. The critical ratio was 0.710 which indicated that there was no statistically significant difference.

D. Determining the Ability to Spell Derived Forms of the Spelling Words

1. From the evidence it appeared that the experimental group spelled the

derived forms of spelling words more accurately than the control group.

- a. The mean score of the experimental matched cases was 34.55 as compared to 30.13 for the control group. The difference between mean scores was 4.42. The critical ratio was 2.55 which was just under the figure of significance, 2.57. There was a difference which was statistically significant at the 5% level.

E. Determining the Ability to Write Spelling Words as Definitions

1. From the evidence it appears that the experimental group was able to write spelling words as definitions.
 - a. The experimental mean score was 14.41 and the control mean score was 10.76. The difference between mean scores was 3.71. The critical ratio of 2.20 indicated that there was a difference

which was statistically significant at the 5% level. The ratio 2.20 was under the figure of 2.57.

IV. CONCLUSIONS ON THE DATA OF THE FOUR ACHIEVEMENT GROUPS

A. Ability of Achievement Groups to Transfer Spelling Words to Written Language on the Synonym Context Test and the Composition Test

1. From the evidence of synonym context test it appears that all four groups made gains in spelling transfer.
 - a. On the synonym context, the excellent spellers made a mean gain of 32.65. The critical ratio of 18.77 showed that the difference was statistically significant.
 - b. The good spellers made a mean gain of 26.40 on the spelling inventory. The critical ratio was 16.90 which showed that the

difference was statistically significant.

c. On the synonym context test, the fair spellers made a mean gain of 25.02. The critical ratio of 12.51 showed that there was a statistically significant difference.

d. On the synonym context test, the poor spellers had a mean gain of 19.36. The critical ratio was 10.81 which showed that the difference was statistically significant.

2. From the evidence it appears that excellent spellers made significant gains over the good spellers on the synonym context test.

a. The mean gain of the excellent spellers was 32.65 as compared to the mean gain of 26.40 of the control group. The difference between the mean gains was 6.25.

The critical ratio of 2.75 showed that the difference was statistically significant.

3. From the evidence it appears that there was no statistically significant difference between the gains of the fair spellers and the good spellers on the synonym context test.

- a. The mean gain of the good spellers was 26.40 as compared to 25.02 for the fair spellers. The difference between the mean gains was 1.38. The critical ratio of 0.545 showed there was no statistically significant difference.

4. From the evidence it appears that the fair spellers made gains over the poor spellers on the synonym context test.

- a. The mean gain of the fair spellers was 25.02 as compared to the mean gain of 19.36 for the poor spellers. The mean difference in gains was 5.66. The critical

ratio of 2.10 was under the figure of 2.57 and so the difference was not statistically significant at the 1% level.

5. From the evidence it appears that all four groups made statistically significant gains on the composition test.

a. The mean gain of the excellent spellers was 4.87. The critical ratio of 15.21 showed that the difference was statistically significant.

b. The mean gain of the good spellers was 4.45. The critical ratio was 14.8 which showed that the difference was statistically significant.

c. The mean gain of the fair spellers was 3.77. The critical ratio was 10.40 which showed that there was a statistically significant difference.

- d. The mean gain of the poor spellers was 2.66. The critical ratio was 7.60 which showed that the difference was statistically significant.
6. From the results it appears that the excellent spellers made gains over the good spellers; the good spellers made gains over the fair spellers; the fair spellers made gains over the poor spellers on the composition test.
 - a. The mean gain of the excellent spellers was 4.87 as compared to the mean gain of the good spellers, 4.45. The difference between the mean gains was 0.42 which favored slightly the excellent spellers. The critical ratio was 0.965 which showed there was no statistically significant difference.
 - b. The mean gain of the good spellers was 4.45 as compared

to the fair spellers whose mean gain was 3.77. The difference between the mean gains was 0.68 which favored the good spellers slightly. The critical ratio was 1.45 which showed that there was no statistically significant difference.

- c. The mean gain of the fair spellers was 3.77 as compared to the mean gain of 2.66 for the poor spellers. The difference between the mean gains was 1.11 which favored the fair spellers. The critical ratio was 2.18 which showed that the difference was statistically significant at the 5% level. It was not significant at the 1% level.

B. Ability of Achievement Groups on the Accuracy of Spelling on the Spelling Inventory Test

1. From the evidence it appears that all

four achievement groups made significant gains on the spelling inventory.

- a. The mean gain of the excellent spellers was 16.55. The critical ratio was 8.71 which showed that there was a statistically significant difference.
- b. The mean gain of the good spellers was 22.45. The critical ratio of 14.11 indicated that the difference was statistically significant.
- c. The mean gain of the fair spellers was 26.83 on the composition test. The critical ratio of 10.73 showed that the difference was statistically significant.
- d. The mean gain of the poor spellers was 23.39 on the spelling inventory. The critical ratio was 10.63 which

showed that the difference was statistically significant.

V. SUMMARY OF FINDINGS

The specific practice in using the spelling words in written language results in the following:

1. A significant gain in the appearance of words from the spelling list in the "synonym context test." This test required that the pupil substitute a spelling word (one from the list of words taught during this eight week period) which meant the same or about the same as the words underlined in the test.
2. A significant gain in using the spelling words in the synonym context test by all the achievement groups; the excellent spellers, the good spellers, the fair spellers, and the poor spellers.
3. The most significant gain in the use of spelling words in the synonym context test by the excellent spellers.
4. The least significant gain in the use of spelling words in the synonym context test by the poor spellers.

5. A significant gain in the number of words from the spelling list which appeared in the written compositions of the pupils. This test required that the pupils use spelling words in expressing themselves on various topics.
6. A significant gain in the number of spelling words used by pupils in all the achievement groups to express themselves in written language. These groups included the spellers who were excellent, good, fair, and poor.
7. The most significant gain in the appearance of spelling words in written language by the excellent spellers.
8. The least significant gain in the appearance of spelling words in the written language by the poor spellers.
9. A significant gain in the ability to spell accurately the words taught in the spelling list of 144 new words during the eight week period. This inventory test tested 72 of the 144 words.
10. A gain in the ability to spell words accurately as measured by the Metropolitan Achievement Test. The critical ratio of 2.30 by the 97 cases was not statistically significant, as it was below the figure of significance of 2.57.

11. A higher mean score by the experimental group in the spelling accurately of derived forms of the words in the spelling list. This test required that the pupils write correctly the derived form as the teacher dictates the word in context. Fifty derivatives were tested.
12. A higher mean score in the use of words from the spelling list as synonyms as tested by the definitions test. The pupils read the word or group of words which were listed and wrote the word which they thought meant the same or about the same.

This summary of findings presents the final conclusions in answer to the four questions to be investigated in this study.

CHAPTER VI

SUGGESTIONS FOR FURTHER RESEARCH

As the study in word usage techniques are being conducted, there seemed to be opportunities where further research might be suggested in investigating other aspects of the topic. The following are some suggestions for further research:

1. The exercises in this study were blocked off with the spelling words of the month and were presented to all of the pupils. The brighter students wrote more sentences and did more of the exercises, but were stimulated to use the words of the month only for the period of a month. It was suggested by the teachers that these students might have moved on to the next month's work in a shorter time, or as soon as they knew the spelling words and were able to use these words correctly in written language situations. This suggested procedure would have the teams moving through monthly blocks of work at their own rates.

2. The teams of three were found to be successful by the majority of pupils participating, but some pupils felt that they wanted to work in pairs. The same type of experiment might be tried using pairs, instead of teams of three as the plan of organization.

3. In observing and working with the pupils, the writer noticed that one of the weaknesses of the study came in the correction of the written language work. The team captain corrected the spelling words daily, and the teachers checked the work of the three days on Thursday. The capitalization, and punctuation, and the sentence structure did not have consistent checking. The skill of proofreading might be added to the study as a way of the team members checking their written material in a systematic manner. This skill would also give added oral repetition of the spelling words as well as promoting better sentence structure.

4. A study of word usage techniques which would use a larger population might also be tried.

5. A follow-up study of transfer to written language situations after a length of time has passed may prove very helpful.

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23. Comparison of Mean Gains on the Metropolitan
Achievement Test in Spelling - March to May
24. Comparison of the Mean Scores on the Derived
Form Test - May
25. Comparison of the Mean Scores on the Definitions
Test - May
26. Chronological Ages of the 97 Paired Cases.
27. Mental Ages of the 97 Paired Cases

28. Intelligence of the 97 Paired Cases
29. Initial Scores of the 97 Paired Cases on the Metropolitan Achievement Test in Spelling - March
30. Initial Scores of the 97 Paired Cases on the Synonym Context Test - March
31. Final Scores of the 97 Paired Cases on the Synonym Context Test - May
32. Experimental Group Gains of the 97 Paired Cases on the Synonym Context Test - March to May
33. Control Group Gains of the 97 Paired Cases on the Synonym Context Test - March to May
34. Comparison of the Mean Gains of the 97 Paired Cases on the Synonym Context Test - March to May
35. Initial Scores of the 97 Paired Cases on the Composition Test - March
36. Final Scores of the 97 Paired Cases on the Composition Test - May
37. Experimental Group Gains of the 97 Paired Cases on the Composition Test - March to May
38. Control Group Gains of the 97 Paired Cases on the Composition Test - March to May
39. Comparison of the Mean Gains of the 97 Paired Cases on the Composition Test - March to May

40. Final Scores of the 97 Paired Cases on the Spelling Inventory - May
41. Experimental Gains of the 97 Paired Cases on the Spelling Inventory - March to May
42. Control Group Gains of the 97 Paired Cases on the Spelling Inventory
43. Comparison of the Gains by the 97 Paired Cases on the Spelling Inventory - March to May
44. Final Scores of the 97 Paired Cases on the Metropolitan Achievement Test in Spelling - May
45. Mean Gains of the Experimental Group on the Metropolitan Achievement Test in Spelling - March to May
46. Mean Gains of the Control Group on the Metropolitan Achievement Test in Spelling - March to May
47. Comparison of the Mean Gains of the 97 Paired Cases on the Metropolitan Achievement Test - March to May
48. Comparison of the Mean Scores of the 97 Paired Cases on the Derived Form Test - May
49. Comparison of Mean Scores on the Definitions Test - May
50. Comparison of the Initial Scores on the Synonym Context Test by the Four Achievement Groups - March

51. Comparison of the Final Scores on the Synonym Context Test by the Four Achievement Groups - May
52. Mean Gains of the Excellent Spellers on the Synonym Context Test - March to May
53. Mean Gains of the Good Spellers on the Synonym Context Test - March to May
54. Mean Gains of the Fair Spellers on the Synonym Context Test - March to May
55. Mean Gains of the Poor Spellers on the Synonym Context Test - March to May
56. Comparison of the Mean Gains on the Synonym Context Test - March to May
57. Comparison of Mean Gains of the Excellent and Poor Spellers on the Synonym Context Test - March to May
58. Initial Scores of the Four Achievement Groups on the Composition Test - March
59. Final Scores of the Four Achievement Sections on the Composition Test - March to May
60. Mean Gains of the Excellent Spellers on the Composition Test - March to May
61. Mean Gains of the Good Spellers on the Composition Test - March to May
62. Mean Gains of the Fair Spellers on the Composition Test - March to May

63. Mean Gains of the Poor Spellers on the Composition Test - March to May
64. Comparison of Gains of the Four Achievement Groups on the Composition Measures - March to May
65. Initial Scores of the Four Achievement Groups on the Spelling Inventory - March
66. Final Scores of the Four Achievement Groups on the Spelling Inventory - May
67. Mean Gains of the Excellent Spellers on the Spelling Inventory - March to May
68. Mean Gains of the Good Spellers on the Spelling Inventory - March to May
69. Mean Gains of the Fair Spellers on the Spelling Inventory - March to May
70. Mean Gains of the Poor Spellers on the Spelling Inventory - March to May
71. Comparison of Gains on the Spelling Inventory
72. Item Analysis of the Synonym Context Test for the Excellent Spellers
73. Preference for Types of Exercises
74. Preference for Size of Teams
75. Preference for Change of Team Members
76. Preference for Team Participation

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APPENDIX

I. Samples of Tests

- A. Kuhlman Anderson Test F
- B. Synonym Context-A and B
- C. Composition Test
- D. Spelling Inventory Forms A and B
- E. Metropolitan Achievement Test
World Book Co.
Forms R and T
- F. Derived Form Test
- G. Definitions Test

II. Preference Checks

- A. Pupil's Interest
- B. Pupil's Preference after Experiment
- C. Teacher's Preference after Experiment

III. Samples of Materials

- A. Word Usage Exercises
- B. Reference Sheets (found on pages 59-63)
- C. Spelling Log

Synonym Context Test - A

1

The man who was leading was climbing slowly but
 only up the high mountainous road which was thin
 in places, wet soil. The man had been full of
patience on this trip, and has found many new trails.
 He seemed daring at times and cautious at others.
 He acted in a way which brought chuckles to all in the
 group. He did not try to set any unequaled time in
 doing the climb, and made the whole journey seem an
 unimportant matter.

13

14

The policeman hastened after the robber who had
 stolen the gem, and blew his signal loudly. He had been
 looking for the good looking man now for a long time.
 Only when the robber started to run, and so the policeman
 moved more rapidly, too, hoping to catch him. This robber
 was one of the people's enemy.

22

In the old days, people rode in a cart, even over
 hills. Today the car speeds across the main roads
 which are wide and even with fine cement covering.

Long roads stretch out the long way and the breadth
 of the country. It is a hard to solve thing to con-

trol the speed so that we do not cause accidents, ruin
 and leave cars a total destruction, beyond fixing.

The name of a book can attract our attention, even

though the book itself may be not known. With more than

hundreds of thousand books and magazines on the market

, many would more gladly read than watch television.

A good book can create great interest and cause people to

read quickly to read it.

1. _____
2. _____
3. _____
4. _____
5. _____
6. _____
7. _____
8. _____
9. _____
10. _____
11. _____
12. _____

13. _____
14. _____
15. _____
16. _____
17. _____
18. _____
19. _____
20. _____
21. _____

22. _____
23. _____
24. _____
25. _____
26. _____
27. _____
28. _____
29. _____
30. _____
31. _____
32. _____
33. _____

34. _____
35. _____
36. _____
37. _____
38. _____
39. _____
40. _____

Synonym Context Test - A

41.

V. There was a wide difference of gifts in the shop,

42.

and many were of value. A tiny carved canoe with a golden

43

44

car was only five dollars which did not seem a careless

44

spending of money. The owner had already started to

45

46

lessen the prices on many things which had good worth.

47

48

On the articles for the house, there was an entire

49

change of prices, as some of these had received harm

50

in a fire. There was certainly a great part of excite-

51

ment over this sale, and no one wanted to be left out

during this time.

VI. The prisoner had been brought before the judge for

52

53

the aim of hearing the decision of innocent or not

53

54

55

innocent. He had displayed no sign of anxiety, but

seemed indeed to be right at ease. He did not seem to

56

57

want to hurt anyone, and had full confidence in the

decision of the court.

VII. The ranger began to sketch over the lines of the

58

weather chart as he was anxious to know what was ahead.

59

He was in the lookout highspot of the rangers where he

61

62

had slumbered in order to stop before happening a

63

forest fire on this most valuable real estate. The

64

65

freedom from danger of these woodlands was a subject on

66

which these men could give many a fine talk. It was

67

68

clear to see that they knew how very valuable their

work was.

41. _____

42. _____

43. _____

44. _____

45. _____

46. _____

47. _____

48. _____

49. _____

50. _____

51. _____

52. _____

53. _____

54. _____

55. _____

56. _____

57. _____

58. _____

59. _____

60. _____

61. _____

62. _____

63. _____

64. _____

65. _____

66. _____

67. _____

68. _____

Synonym Context Test - A

VIII. The very fat man was having such a hard time to
 carry the ⁶⁹pail of water to the ⁷⁰closest cabin. With
⁷¹every movement of his body, some water spilled, and
 he began to ⁷²feel sorry that he had agreed to do this
 job. He knew now that he should ⁷³lose weight, as he
 had a hard time to ⁷⁴raise up the water. He would not
⁷⁵want to do again this task.

69.
70.
71.
72.
73.
74.
75.

IX. Let's think of a ⁷⁶part of an act in a play about
 a circus.

The clown blows a thin ⁷⁷line of smoke into the air.
 The dog does ⁷⁸try to chase it. He falls over a ⁷⁹broken
⁷⁹tree and is ⁸⁰brushed off by a big broom.

76.
77.
78.
79.
80.

Synonym Context Test - B

he not ¹so long ago arrival of the ²daring hockey
 has caused much excitement with cheers from the boys
³huckles from the girls. There has been ⁴even now a
 d for tickets as everyone wants to ⁵be present. The
 is known for its ⁶force, and has set many ⁷unequaled
 s. They hold the ⁸name of champion, and have been
 d one team in a ⁹ten hundred thousand.
 ccidents present a ¹⁰hard to solve thing to us in the
 and they have ¹¹ruined many cars and people. The
 e ¹²know thoroughly the importance of safety, and
¹³prefer to have everyone drive more slowly. It is
¹⁴to see a ¹⁵battered car, and know that this is
¹⁶and mending. The problem today seems ¹⁷less good
 ad of better.
 The sun ¹⁸did shine down on the ¹⁹green field where
 animals were grazing. A bird had ²⁰found a ²¹wiggly,
²²ing animal on the ground, and a rabbit seemed to be
²³hurry as he hopped away. The turtle just poked
²⁴as he never ²⁵went fast to get anywhere. A frog
 ed in the ²⁶wet soil banks of the river. Life in the
 ry seemed so ²⁷easy.
 A baseball team needs a good ²⁸man to lead, who can
 and the ²⁹honor of the other ³⁰members of the team.
 the players are not playing in the ³¹way in which
 should, it is his job to arouse them ³²rapidly to do
 er. Baseball is the game which can ³³catch the spirit
 ll America, and will ³⁴undoubtedly bring excitement
 any this summer.

1. _____
2. _____
3. _____
4. _____
5. _____
6. _____
7. _____
8. _____
9. _____

10. _____
11. _____
12. _____
13. _____
14. _____
15. _____
16. _____
17. _____

18. _____
19. _____
20. _____
21. _____
22. _____
23. _____
24. _____
25. _____

26. _____
27. _____
28. _____
29. _____
30. _____
31. _____

Synonym Context Test - B

V. A speeding ³²car going up a ³³thin, ³⁴high road may be heading into trouble, ³⁵even though the driver is a good one. Even on a ³⁶wide, ³⁷main road, speeding is dangerous. The road may not be ³⁸even, or rain may have made the pavement slippery. It is always ³⁹of assistance to keep checking the speedometer, especially on an ⁴⁰unfamiliar road.

32. _____
33. _____
34. _____
35. _____
36. _____
37. _____
38. _____
39. _____
40. _____

VI. With one swift ⁴¹moving of the arm, the axe cut through the tree, leaving only the ⁴²cut off trunk. The woodsman then began to ⁴³help in piling up the ⁴⁴timber which had been cut. This was the ⁴⁵biggest number of logs yet, and was the ⁴⁶outcome of long weeks of hard work.

41. _____
42. _____
43. _____
44. _____
45. _____
46. _____

VII. Everyone was ⁴⁷anxious for the game to start. This was the ⁴⁸minute that all had been awaiting. The coach had made a ⁴⁹talk in which he had made the ⁵⁰asking for everyone to be on hand to cheer the team over the ⁵¹final line for a touchdown. It was ⁵²of worth to win this game, as they were the ⁵³closest to being champions.

47. _____
48. _____
49. _____
50. _____
51. _____
52. _____
53. _____

VIII. The ⁵⁴driver of the plane began to ⁵⁵examine carefully the parts of the plane, to be sure that all was ready for a trip of ⁵⁶safe going. When he had ⁵⁷finished this, he knew that he would not ⁵⁸feel anxious. It is wiser to ⁵⁹stop before having an accident, and not ⁶⁰feel sorry afterwards that everything had not been checked.

54. _____
55. _____
56. _____
57. _____
58. _____
59. _____
60. _____

IX. A ⁶¹savage battle was raging, and the ⁶²foe was advancing on our men. The ⁶³leader of the whole army called the soldier ⁶⁴closest to him to call for help. The sudden attack had given the men a feeling of ⁶⁵terror, but now they seemed to know they could put their ⁶⁶faith in their leader.

61. _____
62. _____
63. _____
64. _____
65. _____
66. _____

Synonym Context Test - B

in their leader.

X. The Princess ⁶⁷did slumber for a hundred years in the
⁶⁸high point of the palace. She could not be awakened by
⁶⁹riches, as the witch had cast a spell ⁷⁰to make suffer
⁷¹the King. Only a Prince could win in awakening this
⁷²lovely Princess. All others would meet with no success.

XI. There was much left to be done, and he had already
⁷³brushed the floor. Now, he must ⁷⁴raise up the water into
⁷⁵a pail, rake up the whole ⁷⁶surface and pull up the ⁷⁷wild
⁷⁸plants. He would always try to make his father's own
⁷⁹land better, here, in the ⁸⁰low place of two hills.

67. _____
 68. _____
 69. _____
 70. _____
 71. _____
 72. _____

73. _____
 74. _____
 75. _____
 76. _____
 77. _____
 78. _____
 79. _____
 80. _____

Composition Test

1. Choose two of the topics listed below and write a paragraph about each of them.

The Exciting Life in a Lumber Camp
If I Had Magic Power
Mystery of the Stolen Gem
Safety of the Highways

2. Write two phrases which might describe each of the following.

1. Robin Hood
2. A Truck Driver
3. The Danger of Fire
4. A Farm
5. A Big City
6. Ted Williams

SPELLING TEST - FORM A**DIRECTIONS:**

Dictate each word to the class. Use the word in a sentence.
Then, repeat the word.

- | | |
|-----------------|--------------|
| 1. scarce | 37. source |
| 2. muddy | 38. moment |
| 3. power | 39. example |
| 4. public | 40. slept |
| 5. county | 41. goal |
| 6. highway | 42. lumber |
| 7. repair | 43. acre |
| 8. possible | 44. cork |
| 9. steep | 45. selfish |
| 10. understand | 46. speech |
| 11. willing | 47. shown |
| 12. rush | 48. omitted |
| 13. opposite | 49. complete |
| 14. someone | 50. request |
| 15. wreck | 51. plain |
| 16. million | 52. enclose |
| 17. promise | 53. prevent |
| 18. unless | 54. waste |
| 19. twenty-five | 55. greatest |
| 20. surely | 56. valuable |
| 21. handsome | 57. result |
| 22. seventeen | 58. fright |
| 23. jewel | 59. worry |
| 24. debt | 60. failure |
| 25. patch | 61. weed |
| 26. laughter | 62. fierce |
| 27. flight | 63. safety |
| 28. following | 64. succeed |
| 29. worm | 65. tower |
| 30. although | 66. inspect |
| 31. rather | 67. lower |
| 32. likely | 68. attempt |
| 33. manner | 69. pump |
| 34. bother | 70. pilot |
| 35. already | 71. offend |
| 36. however | 72. repeat |

SPELLING TEST - FORM B

Dictate each word to the class. Use it in a sentence. Repeat the word.

- | | | |
|---------------|----------------|--------------|
| 1. automobile | 25. thief | 49. deal |
| 2. wagon | 26. leader | 50. motion |
| 3. worse | 27. capture | 51. sample |
| 4. broad | 28. habit | 52. envy |
| 5. length | 29. pasture | 53. eager |
| 6. pavement | 30. whistle | 54. reduce |
| 7. level | 31. destroy | 55. stump |
| 8. narrow | 32. helpful | 56. enemy |
| 9. straight | 33. useful | 57. guilty |
| 10. simple | 34. bold | 58. damage |
| 11. necessary | 35. unknown | 59. neither |
| 12. respect | 36. discovered | 60. bucket |
| 13. hurried | 37. important | 61. scene |
| 14. shove | 38. wealth | 62. column |
| 15. quickly | 39. variety | 63. swept |
| 16. recent | 40. nearest | 64. property |
| 17. record | 41. furniture | 65. purpose |
| 18. problem | 42. paddle | 66. support |
| 19. seventh | 43. value | 67. area |
| 20. title | 44. supply | 68. valley |
| 21. attend | 45. regret | 69. trace |
| 22. robber | 46. general | 70. assist |
| 23. whom | 47. topic | 71. punish |
| 24. payment | 48. satisfy | 72. trust |

METROPOLITAN ACHIEVEMENT TESTS

SPELLING LIST — FORM R

For Intermediate and Advanced Batteries
(Complete and Partial)

R

Note that fifth-grade pupils are given only words 1 to 50, sixth-grade pupils words 6 to 55, seventh-grade pupils words 16 to 65, and eighth-grade and ninth-grade pupils words 26 to 75. In the case of Grades 6, 7, 8, and 9, the words are to be read as though they were numbered 1 to 50. Read the number of each word first and caution pupils to write the word on the line that has the number of that word. *If the Intermediate Battery is given at the beginning of Grade 7, use the sixth-grade list.*

Fifth grade begins here.

- | | | |
|-----------------|---|--------------|
| 1. <i>let</i> | Let us walk. | <i>let</i> |
| 2. <i>keep</i> | Always try to keep your promise. | <i>keep</i> |
| 3. <i>cent</i> | A penny is a cent . | <i>cent</i> |
| 4. <i>grass</i> | In summer cows eat green grass . | <i>grass</i> |
| 5. <i>care</i> | I did the dangerous work with care . | <i>care</i> |

Sixth grade begins here. (Call these words numbers 1 to 50 instead of 6 to 55.)

- | | | |
|-------------------|--|----------------|
| 6. <i>because</i> | The baby cried because he was alone. | <i>because</i> |
| 7. <i>sorry</i> | She was sorry for her sick kitten. | <i>sorry</i> |
| 8. <i>wrote</i> | I wrote a letter. | <i>wrote</i> |
| 9. <i>cutting</i> | The tailor was cutting the cloth with shears. | <i>cutting</i> |
| 10. <i>cost</i> | The book cost a dollar. | <i>cost</i> |
| 11. <i>hold</i> | This is all the box will hold . | <i>hold</i> |
| 12. <i>walked</i> | They walked slowly up the hill. | <i>walked</i> |
| 13. <i>stood</i> | He stood so that he could see the race. | <i>stood</i> |
| 14. <i>does</i> | Helen does well in her studies. | <i>does</i> |
| 15. <i>begun</i> | The work has begun . | <i>begun</i> |

Seventh grade begins here. (Call these words numbers 1 to 50 instead of 16 to 65.)

- | | | |
|----------------------|--|------------------|
| 16. <i>excuse</i> | The teacher will excuse his lateness. | <i>excuse</i> |
| 17. <i>sore</i> | My hurt finger is still sore . | <i>sore</i> |
| 18. <i>thread</i> | The eye of the needle holds the thread . | <i>thread</i> |
| 19. <i>listen</i> | The class will listen to the song. | <i>listen</i> |
| 20. <i>promise</i> | She kept her promise to me. | <i>promise</i> |
| 21. <i>worst</i> | The storm was the worst in years. | <i>worst</i> |
| 22. <i>garage</i> | I keep my car in a garage . | <i>garage</i> |
| 23. <i>guide</i> | A Boy Scout was our guide in the woods. | <i>guide</i> |
| 24. <i>ourselves</i> | We saw ourselves in the mirror. | <i>ourselves</i> |
| 25. <i>different</i> | Many English customs are different from ours. | <i>different</i> |

Eighth and ninth grades begin here. (Call these words numbers 1 to 50 instead of 26 to 75.)

- | | | |
|-----------------------|---|-------------------|
| 26. <i>knot</i> | I tied a knot in the string. | <i>knot</i> |
| 27. <i>library</i> | Our school library contains many books. | <i>library</i> |
| 28. <i>screw</i> | The screw driver is in the tool chest. | <i>screw</i> |
| 29. <i>decide</i> | I must decide which to keep. | <i>decide</i> |
| 30. <i>against</i> | The Reds played against the Blues. | <i>against</i> |
| 31. <i>cellar</i> | Our coalbin is in the cellar . | <i>cellar</i> |
| 32. <i>certainly</i> | She must certainly correct the error. | <i>certainly</i> |
| 33. <i>celebrate</i> | On July the 4th we celebrate . | <i>celebrate</i> |
| 34. <i>patient</i> | The doctor's patient entered his office. | <i>patient</i> |
| 35. <i>instructor</i> | One who teaches is an instructor . | <i>instructor</i> |

36. *nephew* My sister's son is my **nephew**. *nephew*
 37. *envelope* The writing paper fits the **envelope**. *envelope*
 38. *enemies* Animals fight their **enemies**. *enemies*
 39. *source* A spring was the stream's **source**. *source*
 40. *gradually* The tide comes in **gradually**. *gradually*
 41. *response* The Red Cross drive brought a hearty **response**. *response*
 42. *session* At 9 o'clock our class is in **session**. *session*
 43. *campaign* The school has started a good speech **campaign**. *campaign*
 44. *engineer* A driver of a locomotive is an **engineer**. *engineer*
 45. *legislation* Making laws is called **legislation**. *legislation*
46. *superintendent* Some schools have a **superintendent**. *superintendent*
 47. *delicious* It tastes very good; in fact, it is **delicious**. *delicious*
 48. *enormous* In size, an elephant is **enormous**. *enormous*
 49. *physical* We have **physical** training every day. *physical*
 50. *prior* Prior to coming here, Ed traveled with his parents. *prior*
Fifth grade stops here.
51. *sincerity* He convinced me of his **sincerity**. *sincerity*
 52. *extension* An **extension** was added to the building. *extension*
 53. *similar* Things that look alike are **similar**. *similar*
 54. *necessity* Food is a **necessity**. *necessity*
 55. *immediate* His honesty brought him an **immediate** reward. *immediate*
Sixth grade stops here.
56. *affectionately* The dog licked my hand **affectionately**. *affectionately*
 57. *coarse* She was sewing with a **coarse** thread. *coarse*
 58. *intimate* She is an **intimate** friend. *intimate*
 59. *achievement* A brave deed is an **achievement**. *achievement*
 60. *lieutenant* He was promoted from second to first **lieutenant**. *lieutenant*
 61. *duly* The letter was **duly** answered. *duly*
 62. *ordinarily* Ordinarily we have supper at six. *ordinarily*
 63. *efficient* The city needed an **efficient** police force. *efficient*
 64. *anticipate* We **anticipate** a pleasant trip. *anticipate*
 65. *extravagance* Women show more **extravagance** in clothes than men. *extravagance*
Seventh grade stops here.
66. *tuberculosis* **Tuberculosis** is a serious lung disease. *tuberculosis*
 67. *candidacy* The papers announced his **candidacy** for mayor. *candidacy*
 68. *tonnage* The heavy load increased the boat's **tonnage**. *tonnage*
 69. *millinery* Hats are bought in **millinery** shops. *millinery*
 70. *legitimate* His claim to the property was quite **legitimate**. *legitimate*
 71. *adieu* The French word for farewell is **adieu**. *adieu*
 72. *accommodate* The hotel will **accommodate** us. *accommodate*
 73. *canvass* He began a **canvass** for voters for mayor. *canvass*
 74. *indefinitely* Their visit was postponed **indefinitely**. *indefinitely*
 75. *zephyr* A **zephyr** is a gentle breeze. *zephyr*
Eighth and ninth grades stop here.

METROPOLITAN ACHIEVEMENT TESTS

SPELLING LIST — FORM T

For Intermediate and Advanced Batteries
(Complete and Partial)

T

Note that fifth-grade pupils are given only words 1 to 50, sixth-grade pupils words 6 to 55, seventh-grade pupils words 16 to 65, and eighth-grade and ninth-grade pupils words 26 to 75. In the case of Grades 6, 7, 8, and 9, the words are to be read as though they were numbered 1 to 50. Read the number of each word first and caution pupils to write the word on the line that has the number of that word. *If the Intermediate Battery is given at the beginning of Grade 7, use the sixth-grade list.*

Fifth grade begins here.

1. <i>soon</i>	How soon will the teacher arrive?	<i>soon</i>
2. <i>game</i>	Mary played a game .	<i>game</i>
3. <i>his</i>	My son loved his father.	<i>his</i>
4. <i>better</i>	You must study to do better than he.	<i>better</i>
5. <i>ride</i>	We went for a ride on the bus.	<i>ride</i>

Sixth grade begins here. (Call these words numbers 1 to 50 instead of 6 to 55.)

6. <i>around</i>	The earth passes around the sun.	<i>around</i>
7. <i>still</i>	Do you still go to school?	<i>still</i>
8. <i>spend</i>	Here is a cent to spend .	<i>spend</i>
9. <i>garden</i>	Flowers grow in the garden .	<i>garden</i>
10. <i>hole</i>	The dog dug a hole .	<i>hole</i>
11. <i>ready</i>	The class will soon be ready to go.	<i>ready</i>
12. <i>gather</i>	A crowd will soon gather .	<i>gather</i>
13. <i>sugar</i>	Sugar is sweet.	<i>sugar</i>
14. <i>eighty</i>	After seventy-nine comes eighty .	<i>eighty</i>
15. <i>organ</i>	In church he played the pipe organ .	<i>organ</i>

Seventh grade begins here. (Call these words numbers 1 to 50 instead of 16 to 65.)

16. <i>coffee</i>	Most men drink coffee for breakfast.	<i>coffee</i>
17. <i>wheel</i>	A wheel rolled off the car.	<i>wheel</i>
18. <i>stool</i>	A seat without a back is called a stool .	<i>stool</i>
19. <i>tight</i>	After eating, his belt felt too tight .	<i>tight</i>
20. <i>feel</i>	Do you feel sorry for him?	<i>feel</i>
21. <i>except</i>	Everybody went except me.	<i>except</i>
22. <i>tease</i>	Boys like to tease their younger sisters.	<i>tease</i>
23. <i>wait</i>	While she dressed, I had to wait .	<i>wait</i>
24. <i>kept</i>	This closet is where our books are kept .	<i>kept</i>
25. <i>preparing</i>	We are now preparing for graduation.	<i>preparing</i>

Eighth and ninth grades begin here. (Call these words numbers 1 to 50 instead of 26 to 75.)

26. <i>beauty</i>	I saw the beauty of the rose.	<i>beauty</i>
27. <i>dangerous</i>	Fire is dangerous .	<i>dangerous</i>
28. <i>canned</i>	For winter use, fresh fruit is canned .	<i>canned</i>
29. <i>whistle</i>	The officer blew his whistle .	<i>whistle</i>
30. <i>failure</i>	His failure in the test made him unhappy.	<i>failure</i>
31. <i>further</i>	The plane needs a further tryout.	<i>further</i>
32. <i>earliest</i>	He who arrives first is earliest .	<i>earliest</i>
33. <i>straight</i>	Try to draw the line straight .	<i>straight</i>
34. <i>ache</i>	My tooth does not ache .	<i>ache</i>
35. <i>government</i>	The President is at the head of our government .	<i>government</i>

36. <i>subscription</i>	I signed for a magazine subscription .	<i>subscription</i>
37. <i>confirm</i>	The Senate will confirm the appointment.	<i>confirm</i>
38. <i>omitted</i>	A word was omitted from the sentence.	<i>omitted</i>
39. <i>insignia</i>	That emblem is the Scout insignia .	<i>insignia</i>
40. <i>sense</i>	The dog has a keen sense of smell.	<i>sense</i>
41. <i>anxious</i>	Her illness gave me many anxious hours.	<i>anxious</i>
42. <i>grammar</i>	In school I study nouns in grammar .	<i>grammar</i>
43. <i>personally</i>	He is personally responsible for this.	<i>personally</i>
44. <i>initial</i>	M is my initial .	<i>initial</i>
45. <i>delegates</i>	Two delegates will represent our club.	<i>delegates</i>
46. <i>grateful</i>	The man was grateful for my help.	<i>grateful</i>
47. <i>regretting</i>	The boy was regretting his hasty action.	<i>regretting</i>
48. <i>circumstance</i>	His arrival was a fortunate circumstance .	<i>circumstance</i>
49. <i>advertisement</i>	Many answered the newspaper advertisement .	<i>advertisement</i>
50. <i>necessary</i>	An early start is necessary .	<i>necessary</i>
<i>Fifth grade stops here.</i>		
51. <i>arrangement</i>	The arrangement of the titles was alphabetical.	<i>arrangement</i>
52. <i>enthusiastic</i>	The dog gave him an enthusiastic welcome.	<i>enthusiastic</i>
53. <i>continuous</i>	From noon till midnight the show is continuous .	<i>continuous</i>
54. <i>partial</i>	He received partial credit for his answer.	<i>partial</i>
55. <i>adjournment</i>	He made a motion for adjournment .	<i>adjournment</i>
<i>Sixth grade stops here.</i>		
56. <i>recommend</i>	Mr. Hall will recommend promotion for John.	<i>recommend</i>
57. <i>commissioned</i>	A captain ranks as a commissioned officer.	<i>commissioned</i>
58. <i>equipped</i>	Our gymnasium is fully equipped .	<i>equipped</i>
59. <i>descend</i>	With no more gas, the airplane must descend .	<i>descend</i>
60. <i>pageant</i>	Our school had a history pageant .	<i>pageant</i>
61. <i>anesthetic</i>	An anesthetic is given before an operation.	<i>anesthetic</i>
62. <i>ignoramus</i>	A dunce may be called an ignoramus .	<i>ignoramus</i>
63. <i>memorandum</i>	He had a memorandum pad on the desk.	<i>memorandum</i>
64. <i>temporarily</i>	The storm stopped work temporarily .	<i>temporarily</i>
65. <i>initiate</i>	It is the custom to initiate new members.	<i>initiate</i>
<i>Seventh grade stops here.</i>		
66. <i>bazaar</i>	A church fair may be called a bazaar .	<i>bazaar</i>
67. <i>conceit</i>	These low marks may lessen her conceit .	<i>conceit</i>
68. <i>exhibition</i>	The class went to the art exhibition .	<i>exhibition</i>
69. <i>appropriation</i>	Congress made an appropriation for education.	<i>appropriation</i>
70. <i>accommodation</i>	The loan of the money was an accommodation .	<i>accommodation</i>
71. <i>efficiency</i>	A successful factory is run with efficiency .	<i>efficiency</i>
72. <i>acquaintance</i>	Acquaintance deepened into friendship.	<i>acquaintance</i>
73. <i>guarantee</i>	The watch carries a year's guarantee .	<i>guarantee</i>
74. <i>melancholy</i>	Her long illness made her melancholy .	<i>melancholy</i>
75. <i>definitely</i>	Definitely , I will not go.	<i>definitely</i>
<i>Eighth and ninth grades stop here.</i>		

DIRECTIONS FOR THE DERIVED FORM TEST

o Teachers:

Read the paragraphs orally filling in the blanks with the words listed below. Children write in the blanks the words dictated.

- | | | |
|------------------|-------------------|----------------|
| 1. boldest | 18. millions | 34. eagerly |
| 2. followed | 19. automobiles | 35. scenes |
| 3. capturing | 20. rushing | 36. completely |
| 4. destroying | 21. understanding | 37. requests |
| 5. jewels | 22. follow | 38. worried |
| 6. powerful | 23. scarcely | 39. guilt |
| 7. robbers | 24. helping | 40. punishment |
| 8. thieves | 25. someone | 41. trusted |
| 9. respected | 26. nearer | 42. piloting |
| 10. titles | 27. fiercely | 43. succeeded |
| 11. recently | 28. frightened | 44. moments |
| 12. hurrying | 29. trusty | 45. regretted |
| 13. broader | 30. safe | 46. satisfied |
| 14. patches | 31. lumbering | 47. valuable |
| 15. repaired | 32. assisted | 48. prevention |
| 16. straightened | 33. towering | 49. weeds |
| 17. highways | | 50. steepest |

Name _____ School _____

DERIVED FORM TEST

1. Pirates were the ¹ _____ adventurers, who ² _____ the wild waves to far distant lands. They were always ³ _____ other ships, ⁴ _____ many, and hiding away ⁵ _____ and other treasures. They were ⁶ _____ men, ⁷ _____, and ⁸ _____, but not ⁹ _____ by other men.
2. The ¹⁰ _____ of the books published ¹¹ _____ were listed at the library. The students were ¹² _____ to see which new books they would be reading.
3. The road was ¹³ _____ than before, and there were ¹⁴ _____ of concrete where the men had ¹⁵ _____ it. They had ¹⁶ _____ many of the ¹⁷ _____ which improved them greatly.
4. With ¹⁸ _____ of ¹⁹ _____ ²⁰ _____ across the country, everyone is thinking about travel. We are ²¹ _____ more about our neighbors as we ²² _____ the open road.
5. There is ²³ _____ a day that goes by that we don't have an opportunity for ²⁴ _____ ²⁵ _____ who really needs it.
6. The savage animal was creeping ²⁶ _____ and growling so ²⁷ _____ The ranger was not ²⁸ _____ as he held his ²⁹ _____ rifle in his hand. He was ³⁰ _____ inside the tower.
7. All the men in the ³¹ _____ camp seemed to enjoy their work as they ³² _____ in cutting down the ³³ _____ trees.
8. The children were awaiting ³⁴ _____ the funny ³⁵ _____ of the Play. The tickets were sold out ³⁶ _____ and there were many ³⁷ _____ for more tickets. Everyone was ³⁸ _____ that he might not see this comedy.
9. The lawyer had proved the ³⁹ _____ of the prisoner, and now the

Derived Form Test

-2-

judge would give the ⁴⁰_____ to these men who could not
be ⁴¹_____.

10. Jack White had been ⁴²_____ the plane for three years and
had ⁴³_____ in winning an air medal. He had had many
thrilling ⁴⁴_____. However he never ⁴⁵_____ his
choice of being a pilot and was very ⁴⁶_____ with his life in
the air.

11. The gardener had planted many ⁴⁷_____ plants and sprayed them
for the ⁴⁸_____ of ⁴⁹_____ growing among them. Some
were growing on the ⁵⁰_____ hill.

name _____ School _____

DEFINITIONS TEST

INSTRUCTIONS:

What word does the definition make you think of? Do you know another word which means about the same?

Look at the definitions in the sample below. Think of a word which means the same or about the same.

- A. The first word in Column I is much money and the word wealth has been written beside it. Wealth means about the same as much money. Now try the second one.
- B. Write a word which means to make smaller. The word reduce may be used to mean the same.
- C. Write the word which means left out. Did you write the word omitted?

- A. much money WEALTH
- B. make smaller REDUCE
- C. left out _____

- | | |
|-------------------------|-------------------|
| 1. name of a book _____ | 12. ruin _____ |
| 2. good looking _____ | 13. daring _____ |
| 3. definitely _____ | 14. found _____ |
| 4. gem _____ | 15. closest _____ |
| 5. sieze _____ | 16. timber _____ |
| 6. something owed _____ | 17. minute _____ |
| 7. easy _____ | 18. oar _____ |
| 8. go fast _____ | 19. lecture _____ |
| 9. big number _____ | 20. ask for _____ |
| 10. hard to solve _____ | 21. anxious _____ |
| 11. field _____ | 22. finish _____ |

Definitions Test

-2-

23. jealousy _____

28. win _____

24. hurt _____

29. between hills _____

25. pail _____

30. airplane driver _____

26. goldenrod _____

31. slumbered _____

27. unsuccessful _____

32. help _____

7. Would you like to write about

A bold robbery_____

An exciting game_____

A sailboat _____

A trip to Mars_____

A famous person_____

A visit to another Land_____

A TV program_____

A baker_____

A story_____

You have tried many kinds of exercises, using the spelling words. Read the exercises below carefully and decide which ones you liked best.

If you liked the exercises very much, put a ✓ beside Excellent.

If you liked it pretty well, put a ✓ beside Good.

If you did not like it at all, put a ✓ beside Poor.

Exercises

1. Can you use the three words in the groups below, in one sentence-or perhaps you may need two sentences to use them. Would you like to try? Remember 3 words to be used in 1 sentence (if you can) or in 2 sentences.

Listed below are words in groups of 3:

plan	angry	view	praise	lively
collect	single	beauty	judge	parade
refuse	policeman	golden	enjoy	arrive

Excellent _____ Good _____ Poor _____

2. Word Photography. Have you ever seen an exciting baseball game? Have you ever been to a colorful circus? When you use words to describe, we get

a better picture in our minds of the very thing you saw. Get your mind camera clicking to use words to make clear pictures of the words below. Using these words, describe:

1. A bold robbery 2. A race 3. A Sailboat

Words listed: Excellent___Good___Poor_____

3. Extra! Extra! Headlines Needed!

The stories are ready to go to press! The news is written, but where are the headlines? Can you be the headline reporter and give these stories headlines which will make everyone know what the stories are about.

Excellent___Good___Poor_____

4. Who?

A sailor could describe a storm at sea; a forest ranger could tell about the forest; a football player about his game. Decide which of the following people you will be; and describe yourself. Then we will try to guess who you are. Let's pretend you are:

- | | |
|------------------|----------------|
| 1. a baker | 4. a nurse |
| 2. a big leaguer | 5. a carpenter |
| 3. a secretary | 6. a doctor |

Excellent___Good___Poor_____

5. A fast way to send a message is by telegraph.

Write a telegram and be:

1. the one who has just won the \$64,000 question.

Write your parents the news.

2. the father of a big league player who just hit a home run. Wire him to tell him how you feel.

Excellent _____ Good _____ Poor _____

6. To win a Quiz Program, you must use words clearly.

Be a contestant in our "Mr. W. U." (Word User) and answer the questions below.

1. What kind of a ballplayer is Ted Williams?

2. What would you do if you saw a masked man coming in the window?

Excellent _____ Good _____ Poor _____

7. Exclamation ! Fright! Surprise! Anger!

Have you ever heard a terrible noise and been frightened. Have you ever had a big surprise? At times of fright or anger or surprise, we speak in a sharp sentence that shows our feelings. These are exclamatory sentences. Let's try some exclamatory sentences. What would you say if:

1. you saw a storm approaching.

2. you heard a terrible crash.

3. you felt something crawling up your back.

Excellent _____ Good _____ Poor _____

8. Be a word artist and paint these sentences so they will really live.

Ex. The boy walked to school.

The laughing, lively boy walked rapidly to school. Try these: The outfielder leaped. etc.

Excellent _____ Good _____ Poor _____

9. Let's talk about sounds. Write phrases to describe sounds at night-sounds in a church-at a football game etc.

Excellent _____ Good _____ Poor _____

10. How might you feel if you-

saw a ghost,

Write your feelings in phrases

heard an owl screech

got all A's on your card.

Excellent _____ Good _____ Poor _____

11. It's time for news on TV. Be the reporter and give

the news of 1. a hurricane

3. Arrival of Eisenhower

2. a train wreck

4. The Coronation

Excellent _____ Good _____ Poor _____

12. Did you ever wonder what the mountains might say if they could talk? Or the Rocks? This story was written but what the beach said was left out. Would you like to fill it in?

Summer vacation is fun. The beach with its rolling waves calls out, "

Excellent _____ Good _____ Poor _____

13. If you could ask any question you want, what might you ask: 1. Eddie Fisher

2. A hunter about his lion hunt.

3. A big leaguer about World Series.

Excellent _____ Good _____ Poor _____

14. Would you like to solve a mystery by writing the ending?

Excellent _____ Good _____ Poor _____

15. Want to play "What if?" Write what you would do

if: 1. your teacher said, "Don't come to school tomorrow."

2. a runaway horse was coming towards you.

Excellent _____ Good _____ Poor _____

Preference Check

1. In our spelling, which exercise did you like best?
Put 1 beside the one you liked best. Put 2 beside
the one you liked second best.
 - A. Three words to make one sentence. _____
 - B. What might you do if? _____.
 - C. Topics to write about. _____
 - D. Filling in words which mean the same. _____
 - E. Making up "What if" stories. _____

2. Would you prefer to work
 - a) in a team of three _____
 - b) with a partner _____
 - c) by yourself _____
 (Put a beside one which is correct)

3. In you team-
 - a. everyone worked _____
 - b. one person did the most _____
 - c. one did not help _____

4. Would you prefer to change team members
 - a) every day _____
 - b) once a week _____
 - c) once a month _____

5. Check the sentences which tell how these exercises
helped you most. Check only the two which helped
most.
 - a) I can write sentences better. _____
 - b) I know more meanings of word. _____
 - c) I improved in thinking of ideas. _____
 - d) I can spell better. _____
 - e) I liked to spell better. _____

Preference Check For Teachers

1. In presenting spelling through this method, which group do you think gained most?
1) Slow__ 2) Average__ 3) Bright__ 4) All__ 5) None__
2. Did you think this method was stronger or weaker than the present one? _____
What were strengths? _____

What were weaknesses? _____

3. In grouping the children, did you find that groups
a) should be larger_____ or smaller_____ ?
b) should be changed often_____ kept the same_____ ?
c) were successful_____ were unsuccessful_____ ?
4. Did you think that spelling taught through word usage exercises had little__ much__ no__ carry over in language situations?
5. In what ways do you feel that your pupils made gains?

WORD USAGE EXERCISES

A - I

This exercise is called, "Three can make one." That would sound very strange if you were doing arithmetic. However, in these exercises, it means that three words can be used to make one sentence.

For example, if the three words were:

quickly
thief
jewel

The sentence might be, "The thief stole the jewel and dashed quickly down the street."

Another sentence might be: "Quickly, the thief cut away the glass and reached in for the precious jewel."

You may change the endings of the words if it is necessary to make the sentence sound right.

For example, you might want to say, "The thief saw the tray of jewels and shouted, 'Quick, Tom!'"

An s was added to the word jewel, and the ly was dropped from quickly. You may use any form of the word which is needed in the sentence. All forms will be found on your Reference Sheet. Be sure to check the spelling there.

Listed below are the groups of 3 words. With the members of your team, use these words to make one sentence. Underline the spelling words.

Everyone think!

Everyone share ideas!

Everyone write!

1. necessary
repair
highway

2. already
capture
robber

3. steep
narrow
wagon

4. understand
seventeen
broad

5. likely
possible
million

6. quickly
automobile
highway

7. although
recent
attend

8. flight
discovered
level

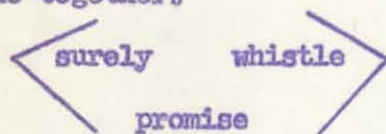
9. attend
handsome
bold

Word Usage Exercise.....A-II

Yesterday you made three words make one sentence or two. You found that words working together gave us many different ideas. Let's see if you can now unlock new ideas with the words below.

We are learning to share our ideas with our team members. We are all writing the sentences on our paper. We are underlining spelling words. We are using deriv forms of the word and checking on the Reference Sheet.

Here are some more groups of words to try our thinking on. Let us try the first one together.



I. rather handsome helpful	II. scarce rush necessary	III. worm pas broad
IV. laughter muddy following	V. record promise power	VI. whom st robber
VII. bother payment debt	VIII. shone surely attend	IX. wagon mu pasture

1. _____

2. _____

3. _____

4. _____

5. _____

Word Usage Exercise.....A-III

This is the last time this week for you to be a sentence builder. The groups of words listed below are waiting to say something.

Share your ideas with your team members. Write the sentences suggested, remembering that you may change endings which are found in the Reference Sheet.

Make your sentences good ones which really say something.

1. { handsome
unless
understand

2. { problem
public
highway

3. { capture
thief
although

4. { rush
pavement
patch

5. { rather
useful
already

6. { wreck
worse
repair

7. { helpful
power
quickly

8. { opposite
narrow
straight

If you have written all the sentences, you may select any three words from the list which you can make into a sentence.

WORD USAGE EXERCISES

B - I

This letter came from a boy in Hungary. He is one of the many, many refugees who may be coming to our shores, to live here in America. He wants to know many things about people and places in America. Can you answer this part of his letter with some good sentences, using the words listed? If you need more space than is given below, use another paper.

Dear Americans,

I will be coming to your wonderful country to start a new life, without fear. I know you lucky Americans live in a democracy where everyone has the opportunity to worship as he wishes, and to work at the kind of job he chooses.

You have many kinds of workers, doing many interesting kinds of work. Can you describe the work of these people that I will be seeing soon?

I. What is a cab driver? What does he do?

A cab driver is a man who _____

following
 already
 willing
 highway
 payment
 automobile
 manner
 quickly
 public
 whistle

II. What is a Big Leaguer?

A Big Leaguer is a ball player who _____

although
 bold
 power
 record
 respect
 helpful
 seventh
 rush
 title
 quickly
 destroy

III. What does the President do?

The President is a man who _____

leader
 possible
 following
 willing
 surely
 problem
 helpful
 public
 power
 understand
 whom

Word Usage Exercise.....B-II

Today, we are going to use spelling words in sentences about many different topics.

Example - Topic: Farming--The sentences might be:

- (1) The farmer promised that this crop would be good even though there were many problems.
 (2) There were many worms as he plowed up the length of the cabbage patch.

Words to use: worm patch
 promise useful
 problem length

Now--Let's Go! Read the topic - write the topic's sentences. Use your Reference sheet to check spelling of derived forms.

Television

recent	laughter	habit
simple	thief	already
understand	attend	discovered

Baseball

power	possible	title
rush	surely	likely
bold	record	length

Scouting

rush	broad	rather
steep	unless	respect
public	willing	leader

The Highway Patrol

automobile	wreck	worse
problem	pavement	straight
repair	quickly	although

The Forest Ranger

county	straight	understand
however	public	willing
helpful	surely	destroy

Word Usage Exercise.....B-III

The topics for today are listed below with the words from which you will make sentences. Use your Reference Sheet. Underline each spelling word.

TOPICS

1. A mvstery

wagon
hurried
handsome

steep
jewel
whistle

following
quickly
problem

thief
capture
repair

2. The policeman

power
broad
capture

manner
scarce
length

bother
destroy
straight

public
habit
level

3. Life in the country

shone
pasture
worm

muddy
rather
unknown

understand
respect
million

laughter
narrow
level

4. A movie

unless
attend
title

public
rather
likely

respect
recent
however

discovered
bold
promise

5. The circus

wagon
worse
simple

laughter
although
narrow

opposite
steep
rush

willing
rather
possible

WORD USAGE EXERCISES

C - I

Have you ever been so afraid that you seemed to shiver and shake?

Have you ever been so surprised that your eyes seemed to pop?

How did you feel-----

deep

down

inside?

Let's pretend that you were walking down the street when suddenly you were swallowed by the earth! Down you went! You were on a coal chute, going down, down on a dark, frightening ride!

Using the words from the spelling list, you might describe how you felt with the following phrases:

- You might be:
- down in a narrow dark place
 - : destroyed by coal
 - : heading straight into trouble
 - : ready to whistle for help
 - : on a swift flight
 - : a complete wreck

Can you add to this list of phrases to tell how you might feel? Underline the word from the spelling list which you used. Be sure you use a phrase which describes the feeling. Remember you may use any derived form by checking the Reference Sheet.

Using the words from your spelling list and Reference Sheet, tell how you might feel and what you might do IF-----

Yesterday, you worked on phrases which told how you felt and what you might do if you had a surprising adventure. Today, let's find some other times when you might need to take action.

Let's think about this one together.

Using the words from the spelling list, what might you do if:

- I. You saw a masked man coming in the window?

I might _____

Now, let us join our team members to try these below:

- II. How would you describe what kind of man Davy Crockett was?

He was _____

- III. What would you do if you had magic power for one day?

I would _____

- IV. How could a person travel to California?

He would _____

This is our last day to use phrases from our spelling list which describe how we feel or what we might do. Today let's use the words listed in the right column to answer our questions.

First one is for all of us together. We all think! We all write!

What might you have done if you had been - -

A bold pirate, who sailed the high seas?

• A magician who has great power with his magic.

What can he do? _____

I. Ted Williams is a great baseball player.

Can you write some phrases to describe him?

• Cowboys are daring men who ride fast and far in the West. Can you write phrases which will tell about cowboys? _____

THIEF

WHISTLE

DISCOVERED

MILLION

CAPTURE

LEADER

JEWEL

BOLD

DESTROY

HELPFUL

LAUGHTER

POSSIBLE

POWER

USEFUL

WILLING

RESPECT

PROMISE

NECESSARY

MANNER

DEBT

QUICKLY

RUSH

SHONE

WORD USAGE EXERCISES

D - I

The exercises for this week are called, "Say it in another way." Sentences are listed below with words underlined. Select one of the words from the Reference Sheet which means the same or about the same as the word or words underlined. Then you will be saying the sentence in another way. Write the whole sentence over with the spelling word underlined.

EXAMPLE: The concrete covering was certainly in need of fixing.

1. The pavement was surely in need of repair.

 1. The policeman blew his signal at the man in the old cart who was riding down the wide main road so very slowly.

2. The beautiful gem did shine very brightly.

3. The car had even now gone many miles before the driver discovered that he had been going after the wrong road.

4. The engine had great force and was full of assistance on the job.

5. The detective found that the robber had gone directly to the safe, and then went fast through the door.

D - II

SAY IT IN ANOTHER WAY!

I do want to go to the ball game and cheer for the daring players and their fine man who leads them.

He was the most handsome of the group, but he was unfamiliar to the group. No one really knew his name or position.

The soldier had caught one of the enemy and now had him standing across from the door.

The fireman would prefer to serve the people than to do anything else.

Children have many good practices for working which aid them in learning.

The high jumper set a new unequaled mark which no one thought was able to be done.

1. We could hear the chuckles of the children, as they ran across the wet soil field.
-
-
-

2. The thief had said he would never steal again.
-
-
-

3. The book with the long name had been published not so long ago.
-
-
-

4. The carpenter had gone fast to get the lumber which was rare.
-
-
-

5. The head of the group pointed to the thin high road which went directly up the mountain.
-
-
-

6. The accident was one of the most awful ever, and the car was a complete ruin.
-
-
-

D - III

Traffic is a big hard to solve thing, and every driver must drive in a way that is safe.

There are a hundred thousand people who are agreeable to write.

F - I

We have written many sentences about many different topics using the spelling words. Today, let us try using one word in a sentence, describing a person, a place, or a thing. MAKE YOUR SENTENCES SAY SOMETHING.

<u>WORD</u>	<u>TOPIC ON WHICH TO WRITE</u>	<u>SENTENCE</u>
prevent	police	<u>The police tried to prevent the robbery.</u>
paddle	travel	_____
regret	report card	_____
fierce	jungle	_____
enemy	war	_____
acre	farm	_____
furniture	house	_____
fright	accident	_____
greatest	sports	_____
goal	football	_____
safety	driving	_____
topic	speech	_____
reduce	overweight	_____
eager	school	_____
area	farm	_____
guilty	prison	_____
important	job	_____
pump	water	_____
repeat	school	_____
stump	forest	_____
speech	politics	_____
trust	bank	_____
valley	travel	_____
tower	fairy story	_____
weed	garden	_____

UNSCRAMBLE

These words have a job to do to tell about the topics below. But--they are all mixed up. They have lost their topics. They need to be put in sentences so that each one may describe a topic. Be sure that every word can describe or tell about a topic in a phrase. So--unscramble them. Put a ✓ beside the word after you have used it. Remember you can use any ending. Write your phrases on another sheet of paper. Try to write at least 5 phrases for each topic.

EXAMPLE: Topic - On a farm, we might see---

Phrases
acres of land,
pumping water,
valuable crops, and
a bucket of water

In the forest, we _____°

At school, we _____°

area	waste	prevent	valuable	support
assist	worry	property	safety	tower
damage	eager	important	satisfy	example

At the Police Station, we _____°

At war, we _____°

enemy	fright	punish	worry	purpose
failure	guilty	result	greatest	nearest
fierce	regret	pilot	general	swept

At the circus, we _____°

At the ball park, we _____.

complete
assist
column

trust
deal
eager

inspect
fierce
goal

valuable
lower
moment

request
motion
neither

succeed
safety
shown

Word Usage Exercise.....F-III

How are your imaginations today? Are you ready for a trip to the moon? Let's pretend that we are a satellite like the Explorer whirling around the world. Using the words below, from the spelling list, write sentences to tell about our trip.

From the Explorer, I can see _____

On the Explorer, I plan to _____

- | | | | |
|----------|-----------|---------|---------|
| attempt | fierce | lower | sample |
| assist | fright | inspect | satisfy |
| eager | failure | omitted | shone |
| enemy | goal | pilot | slept |
| area | greatest | purpose | speech |
| damage | guilty | reduce | supply |
| inspect | important | safety | support |
| valuable | wealth | worry | value |

G - I

ve you ever played a game called, What if?

It makes you think

It makes you write

Think indeed

And get it right

orking in your team, decide which words listed below might be used in a good sentence

answer, What if?

y the example below first.

Example: What if you were walking down the street and saw a child crying because a big dog was running towards her?

I would prevent his biting her.

I would attempt to rush the child away to safety.

I would call the fierce dog to another area.

What if the teacher said to you, "You have done so very well today that you may have tomorrow off."

I would _____.

complete
attempt
eager

goal
greatest
request

worry
succeed
satisfy

shown
slept
nearest

I. What if you walked into The White House and there sat President Eisenhower?

I would _____.

deal
envy
example

fright
furniture
greatest

important
moment
purpose

request
result
value

II. What if a runaway horse were galloping down the street?

I would _____.

waste
variety
trust

tower
stump
scene

inspect
damage
failure

succeed
nearest
prevent

"What if" is a game which makes you think of answers in sentences. Anything may happen with words when we use our imagination. Using any of the words at the end of each question, or any others from the Reference Sheet, answer the following questions. Write your sentences on another paper, so you will have plenty of room.

I. What if the trees changed suddenly into candy?

inspect	motion	offend	regret	request	succeed
lumber	neither	reduce	eager	result	fright

II. What if you were all dressed up in your best clothes on your way to a party, when--you slipped--and fell into a mud puddle?

area	complete	example	neither	regret	trust
attempt	eager	guilty	plan	satisfy	worry

III. What if Superman came right to this school?

property	fierce	bucket	enemy	inspect	tower
safety	acre	column	greatest	lower	trust

IV. What if a circus parade were going by and the elephant started to walk toward the crowd and you?

guilty	safety	attempt	wealth	result	regret
important	area	value	worry	request	reduce

REMEMBER THE REFERENCE SHEET WILL GIVE YOU ANY ENDINGS YOU MAY NEED AND ALSO MORE WORDS

If you have time, can you think up a "What if" story?

H - I

A newspaper reporter must know how to spell words and how to use words to tell a story exactly as it happened.

Could you be a newspaper reporter?

Answer the questions in good sentences, using the words listed below. Make your sentence tell what might have happened. Remember, you may use any word from your Reference Sheet, too. Use another sheet of paper for your answers.

1. What do you think happened when the hunter went on a lion hunt?

worry	regret	greatest	supply	valley
attempt	safety	fierce	valuable	wealth

2. How did Davy Crockett fight in the days of the Old West?

eager	important	punish	scene	succeed
fright	result	purpose	satisfy	trust

3. What might have happened to a boy lost in the forest?

tower	worry	moment	area	lumber
stump	paddle	nearest	attempt	fright

4. What did Mickey Mantle do in the World Series?

enemy	neither	support	waste	important
envy	shown	value	motion	value

5. What happened at the big robbery?

assist	column	damage	repeat	source
bucket	complete	deal	wealth	trace

Word Usage Exercise.....H-2

A reporter thinks fast and can write good sentences about any kind of a situation. Yesterday, we practiced. Today, let's think fast and complete these sentences. Use the words suggested or any from the Reference Sheet.

1. The farmer had _____

damage

supply

waste

2. In the huge forest _____

lumber

paddle

result

3. The pilot _____

safety

attempt

greatest

4. Down in the valley _____

acres

important

shown

5. During the war _____

enemy

fright

fierce

6. In school _____

request

repeat

failure

7. The boys _____

speech

prevent

damage

8. In the new house _____

furniture

completed

sample

9. The water _____

pump

bucket

property

10. They had searched _____

trace

regret

nearest

Word Usage Exercise.....H-3

Now, you have had reporter-practice. Can you think of words to take the place of the ones underlined? Use a word from the Reference Sheet and be sure it has the correct ending. Write the words used below each sentence.

1. The farmer had plowed the ground space and now stood aside to to examine carefully the end work of his hard work.
- _____

2. The teacher had helped the student in finishing their work, which they had started so excitedly.
- _____

3. The fire had swung over the forest and caused much harm. Now only short trunks were left on this valuable land. Everyone should realize the worth of the forest and not spend carelessly this wood.
- _____

4. The ranger had climbed up to the high point and looked at the lowland below.
- _____

5. The fireman had tried in putting out the fire in the wood pile. The owner who had dropped the cigarette felt very responsible.
- _____

6. The long columns held up the high point of the biggest building in the city.
- _____

7. The farmer filled the pail with water for the aim of feeding the horses.
- _____

8. The fat man knew he should lose weight before he decided to row the canoe. 4432-30 L.V.
- _____

NOW CAN YOU WRITE SOME SENTENCES WITH WORDS TO BE FILLED IN FROM THE SPELLING LIST? TRY IT ON ANOTHER GROUP.