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A Study Undertaken to Point the Way Toward a More Regular Spelling.  
by Norma H. Tuffley, M.A. Thesis.

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## **The Way Towards a More Regular Spelling, by Norma Tuffley, M.A.**

\*M.A. Thesis, Univ. of Puget Sound, Tacoma, Wash. June, 1960.

### **Chapter I: The Problem and This Study**

#### **I. The Problem**

*Statement of the problem.* Spelling is a tool of communication and, with the present erratic and illogical spelling combinations of the English language, a most inefficient tool.

The words which cause the most difficulty at the elementary level are those which deviate from the precedent set in the majority of spellings of certain sound elements, or those which have words of similar sound elements spelled irregularly, thus leaving the average child confused as to which form to use.

The greatest need in teaching is to eliminate these inconsistencies.

*The problem from the viewpoint of an elementary teacher.* This problem is being approached from the viewpoint of an elementary teacher who is required to teach reading and its related word recognition program. This program includes the teaching of structural and phonetic analysis skills. [See Appendix II.] That we teach these is accepted, but that we then repudiate them with unphonetic words and words that are constructed in violation of regular generalizations, should be obvious. Much time is spent at the elementary level teaching the exceptions to general rules. (In fact, the word "generalizations" is used to describe certain practices for the simple reason that there are too many exceptions to allow these practices to be considered rules.)

An exception to a rule cripples that rule, and many exceptions destroy its usefulness. In the spelling area, this results in confusion. Unless a child has acute visual perception, his auditory perception is not sufficient to let him recall the proper spelling of words, especially when the sound, instead of reinforcing the visual, contradicts it.

Teachers are faced with youngsters who quote advertizing media on spelling, as well as on other things. These youngsters, far from being taught pure memorization and blind acceptance, are taught to reason, to question, to verify. If there is any discrepancy, they want to know why. And this must necessarily reach into the fields of spelling as well as into the areas of science and social studies. This writer contends that changes should be made in the spelling of many words, and that these changes should be made in line with the skills of word attack that a child is taught in the reading process.

***Importance of the problem. With a more logical form of spelling, we could improve the effectiveness of our teaching, eliminate unnecessary frustrations for children, reduce the amount of high-cost special services required at elementary level for remedial teaching, and broaden the use of the tax dollar for education.***

## **II. The Present Study**

*Purpose of the study.* The purpose of this study is to (1) review the work of others interested in the same field; and (2) suggest ways of moving toward a more regular spelling, using phonetic rules or generalizations that are taught to children at an elementary level.

1. Under the head of review of previous writings this study will:

- a) Investigate concern over the problem among other writers;
- b) Present a review of the attempts at reform of English spelling, and some of the schemes employed.

2. Under the head of suggestions toward a more regular spelling this study will:

- a) Present definitions of the terms used in this study;
- b) Present generalizations or rules employed in teaching word attack skills to elementary school children;
- c) Present a word list representative of the words most commonly used by children and adults in their writing;
- d) Ascertain irregularities in spellings in the word list by studying the various letters and combinations of letters used to represent the sound elements;
- e) Suggest ways of respelling these words regularly so as to lessen the variations in symbol representation met by elementary school children and, incidentally, the entire American English-writing population.

*Recognized limitations of the study.* It is recognized that this is a field in which resistance to change is fostered by tradition. It is truly the "sacred cow" of the English speaking peoples.

It is recognized also, that the nature of our language does not allow for a purely phonetic spelling without the use of a much larger alphabet. The use of an enlarged alphabet is not the purpose of this study.

There is a question whether a purely phonetic spelling is desirable. This could result in a language with such rigid distinctive features as to limit the non-distinctive [See Appendix I.] features which add beauty, warmth and individuality.

There is also the question of general usage versus enunciation. For example: the word *educate* is given the pronunciation *ej-oo-kāt* in dictionaries. Those concerned with proper enunciation would insist that it should be pronounced *ed-ū-kāt*.

It is also recognized that a sudden, radical change in spelling format could be most disturbing. Any plan of spelling reform would need to be introduced in a manner which would result in an evolutionary change, probably over a period of many years.

This sort of program would necessarily involve an over-all national effort with scholars, educators, lawmakers, and publishers working within a common framework of effort. That this is possible is quite certain. That it is improbable must also be recognized.

*Potential benefits of the study.* At the immediate level of the classroom, a simplified spelling following phonetic rules and consistent patterns would reduce time spent on mechanics of language in the entire area of language arts. In spite of the recognized difficulties of learning the spelling of the English language, it is widely taught and used throughout the world because of its simple grammatical structure. If it could be made as easy to learn as is the Spanish language, there is the possibility it might become a truly *universal* language, with resulting benefits to mutual understanding, commerce, science and education of foreigners.

There is much more urgent need for spelling reform now, at both national and international levels, than there was when the spelling reform movement was the strongest. Our world, with its exploding population and attendant problems, has great need for simplicity in a medium of communication and understanding.

In as much as the need to learn to read is a basic fundamental in keeping pupils in school, the problem of school dropouts (and their attendant problems of delinquency, crime) could be reduced with an easier-to-learn system of spelling.

[Spelling Progress Bulletin Summer 1975 pp3-8]

## **Chapter II. Review of Previous Writings and Related Research**

### **I. Previous Writings**

*Concern over the problem of English spelling.* The concern over the problem of the spelling, or perhaps one should say the misspelling, of the English language has been one extending over hundreds of years. Chaucer, notable English writer of the 14th century, had this to say, "And for ther is so gret diversite In Englissh, and in writynge of oure range. . ."

Max Mueller, Professor of Comparative Philology at Oxford Univ. Oxford, England, stoutly defended the principle of revising our spelling. His remarks, abridged from the British *Fortnightly Review* of April, 1876, had to do with ". . . the corrupt state of the present spelling of English, and. . . the advantages and disadvantages connected with the reform of English orthography. . ." [1] His

prediction that any reform would doubtless be put off for many generations was certainly an accurate one.

At the beginning of the 20th century, Lounsbury, author of a book advocating and defending spelling reform, wrote, "It (English spelling) is consistent only in inconsistency." [2] Pages could be filled with the isolated published comments people have made about the inconsistency of our unreasonable spelling, and shelves loaded with the literature written on the subject.

Professional magazines and also lay magazines abound in articles intended to alert the reader to the fact that the English language is not spelled correctly by the majority of people. Endless lists of words have been made. There are lists of words most commonly used by adults in their writing [3] lists comparing the use of certain words by children and adults, [4] lists of those most often misspelled by various groups—from primary school to college graduates, [5][6] and lists of "spelling demons" at various levels. [7]

Petty, a researcher in the field of spelling, took an analysis of certain phonetic elements in a list of persistently difficult spelling words as the topic for a doctoral dissertation. His findings were reported in his 689 page thesis. [8]

Scientific studies have been conducted in every conceivable area where spelling could have significance, or where that area could have a comparable significance with spelling. These studies have tested the influence of such psychological factors as maturity, and physical factors such as speech disorders and hearing acuteness. [9] The results obtained from different methods of teaching spelling have been checked statistically in order to decide which was the superior method. [10]

Numerous books have been written in the hope of improving the spelling of the general public. One recent book by Norman Lewis exhaustively lists words according to variations from the regular spelling. Then it suggests a system of mnemonics for memorization in order that one might know when to use which confusing combination. [11]

But, in spite of all this work from dedicated people, despite the efforts of many good teachers using the best possible materials and methods known, people still do not spell accurately. And, according to research, the situation is not improving.

Arthur I. Gates, outstanding authority on reading, said, "Phonetic skill in moderation is useful; in less degree it leaves the pupil handicapped; in greater degree it may result in a more serious deficiency.""

We know that too great dependence on applying phonetic principles will hinder reading in both areas of speed and comprehension, and it will likewise lead to confusion in attacking words for spelling because of their deviations from regular patterns.

Ernest Horn, authority in the field of spelling research, said:

"When the evidence, on both the consistency and the irregularities of English spelling, is critically and realistically assessed, little justification is found for the claim that pupils can arrive deductively at the spelling of most words they can pronounce. There seems no escape from the direct teaching of the large number of common words which do not conform in their spelling to any phonetic or orthographic rule. One must be exceedingly credulous to believe that authorities, with the most complete knowledge of the English language (philologists, phoneticians, and lexicographers), have been in error in pointing out the serious lack of conformity between spoken words and their printed symbols, have been unaware of such orthographic and phonetic irregularities as exist in the language, or would have so strongly

urged that English spelling be simplified if its difficulties could be removed or largely alleviated by the teaching of phonetic and other orthographic aids." [14]

Simplification is the only possible solution to the spelling dilemma.

The public is ready for some simplification. For assurance of this, all one needs to do is to look about at newly coined trade names, advertizing mediums of posters, billboards, and neon light sign spellings. We see the beginning of a movement to simplify spelling for perhaps the reason of economy in the cost of letters, although "Kozy Kafe" uses as many letters as "Cosy Cafe," and "Bide a Nite" loses only one from the conventional spelling.

This movement could be good in that it takes hold of a problem and does something about it; or it may not be good in that these individually changed words may be respelled ignoring certain basic generalities of construction that our regularly spelled words do have, and therefore add confusion to confusion.

## Chapter II: Review of Related Research

*Spelling reform in England.* The earliest record of an effort to systematize the spelling of the English language was contained in the *Ormulum*, a collection of religious writings at the beginning of the 13th century. Ormin, a monk, attempted to reform the spelling of the Middle English of his time. Since the chief difficulty then was in distinguishing between the long vowels and the short ones, he proposed doubling the consonants following the short vowels. Thus, he spelled *fire-fir*, and *fir-firr*. [15] His writings carried out his proposals consistently, and, altho his ideas were not accepted, his writings have been a valuable record of the pronunciation of that particular time. We see some reflection of his thought in such words as *little* (where the second *t* stresses the short *i*).

350 years later, Sir John Cheke (1514-1557), the first regius professor of Greek at Cambridge, attempted major reforms. By this time Modern English had replaced Middle English, but a host of useless *e*'s still clung. Sir John proposed to be rid of them all. [16] Thus he wrote *give-giv* and *believe-belev*. He tried to eliminate the use of *y* as a vowel, always using *i* in its place, as *mighti*, *dai*. [17] To show the difference between long and short vowels, he proposed doubling all vowels for the long sound, as *take-taak*, *mine-miin* (altho it was written *mijn*, since at this time *i* and *j* were interchangeable.) He also proposed to get rid of all silent consonants, thus making *doubt-dout*. He seemed, however, not to have decided on some spellings since Baugh reports that he writes *borrowing* three ways within a single paragraph." Mencken tells us that, "Cheke was supported in his reforms by a number of influential contemporaries, . . . but English went on its wild way." [19]

In 1568 Sir Thomas Smith, a friend and contemporary of Cheke, suggested the abandonment of the traditional alphabet and the substitution of a phonetic alphabet. [20] His work, published in a *Dialogue Concerning the Correct and Emended Writing of the English Language* increased the alphabet to 34 letters and made use of marks for the long vowels. [21] There is no evidence that his reform won much favor.

In 1569 John Hart also made an attempt at phonetic writing. His work, *An Orthographie*, was enlarged and broadened in the following year into *A Method of Comfortable Beginning for All Unlearned. Whereby They May Bee Taught to Read English* (1570). [22] He made use of special characters to represent the digraphs: *ch*, *th*, *wh*, etc. His method, also, seems to have met with no approval.

In 1573 John Barrett published a dictionary in which he suggested that the superflous *q* be omitted entirely and *c* be limited to its combination with *h* to spell the sound of *ch* as in *church*. [23]

In 1580 William Bullokar, in his *Booke at Large, for the Amendment of Orthographie for English Speech*, felt he had profited by the mistakes of former reformers who, he thought, had attempted to differ too far from the old. He proposed few special characters, but he used accents, apostrophes, and hooks above and below both vowels and consonants. [24] An examination of the reproduction of his *Booke* [25] shows why it, too, was not accepted. It was too strange in appearance.

Richard Mulcaster, the teacher of Spenser, was considered the best authority on spelling in the 16th century. His book, *The Elementarie* (1582), "which entreateth chiefly of the right writing of our English tongue," set forth in flowery language the precepts of the time in regard to spelling. He saw futility in trying to make the spelling phonetic in a scientific sense. He compromised between the ideal and the practical. He did not believe that one could correct existing difficulties by substituting a new and possibly greater difficulty. He felt, too, that the differences in sound were often too subtle to express. Altho he did not ignore sound, he felt that it should not be given undue consideration. He was far more interested that people adopt the *same spelling* for a word than that it be phonetic.

In this, tho, he was not always consistent. In the General Table at the end of the first part of his book, he gives variant spellings for words: *bisket, biscot; blaspheme, blasfeam*. [26] He felt there was no use in writing *putt, grubb, ledd*, for *put, grub, and led*, but he also admonishes that one must not omit such letters as the *t* in *fetch* and *scratch*. Since we write *hear*, we should therefore write *fear* and *dear*.

However, he feels that because of custom one should continue to write *where, here, and there*. Bough feels that it is difficult to estimate any influence that Mulcaster may have had. [27] In a day of few books, his book may have served to set into a mold the spelling of the time. Thus, he bequeathed to us much of the spelling of the Renaissance that, had his book not been written, might well have evolved into a more simple, phonetic spelling.

The different plans projected by these writers show us the concern for the inconsistency of spelling even at this time.

The actual spelling practice was determined mainly by printers, many of whom were unskilled in the field of language. They chose the spellings that suited them, some of which the aforementioned reformers had advocated. After 1650 most of their rules began to be accepted and many of them remain in force today. [26]

An examination of the *Preface to the New World of English Words* 1658, [29] by Edward Phillips (Milton's nephew) shows English very much as it is written now. There are a few extra *e*'s which have since been dropped, such as in *losse* and *finde*. *Forrainers* looks a little strange, as does *sence* for *sense*. And, he says, ". . . in fine, let a man compare the best English now written with that which was written three, or four years ago, and if he be not a doater (doter) upon antiquity, he will judge ours much more smooth, and grateful to the ear."

Menken reports that about a century after Sir Thomas Smith (1568), the Rev. John Wilkins, then Dean of Ripon and later Bishop of Chester, came forward with a phonetic alphabet of 450 characters which he defended very learnedly on physiological grounds. [30] He produced elaborate plates showing the position of tongue, palate, and mouth to support his defense. Altho such an alphabet appears extremely impractical, the amount of thought, of time, and of effort expended on this project must certainly be recognized.

In 1755 Samuel Johnson published his dictionary. The spelling was much as it had been, but, for the first time there was a guide to that spelling of universal acceptance. Johnson helped to keep many of the old spellings, for when he was in doubt, he "proceeded with a 'scholar's reverence for

antiquity'." [31] With the publishing of this dictionary, the spelling of the language was no longer a fluid thing with a possibility of change. There was now an *Authority*. Johnson attempted some reforms such as reducing the final *ll* to *l*, which failed to take hold. Actually his decisions usually endorsed the customary usage far oftener than they tried to change it. His influence, both in England and America, was tremendous.

*Spelling reform in the United States.* In 1768 Benjamin Franklin had published, *A Scheme for a New Alphabet and a Reformed Mode of Spelling*, which called for six new characters. He meant to have a modified *a* for the *a* in *ball*; an upside down *h* for the *u* in *unto*; a combination of long *s* and *i* for the *sh* in *wish*; a *y* with a curled tail for the *th* in *think*; and a somewhat similar *h*, but with a wavy appendage at the top, for the *th* in *thy*. Franklin erased *c*, *w*, *y*, and *f* from the alphabet as "unnecessary." He proposed that the vowels be differentiated by using one letter for the short ones and two for the long ones. [32] He even went so far as to have a special font of letters cut for the purpose of putting his alphabet into effect.

Noah Webster, tho invited, did not go along with Franklin in his ideas. Instead, he came forward with his own spelling reform. He has been credited by many authorities with being the father of spelling reform in this country; altho Mencken, in his last book, gives evidence that much of the material that he used was not so original as was first thought. [33] He worked for years on the idea of an American language. His work, *A Grammatical Institute of the English Language*, contained an elementary book on English, a spelling book, a grammar, and a reader. The success of the first part was tremendous and it was reissued in 1783 under the title of *The American Spelling Book*. It is estimated that more than eighty million copies of this book were sold in the next 100 years. [34] In 1789, he published *Dissertations on the English Language*, and in this he printed his proposals for spelling reform. With the phenomenal success of his spelling book, one wonders what the results would have been had he incorporated his ideas for reform in *that* book.

Briefly, his proposals for reform were:

1. The omission of all superfluous silent letters;
2. The substitution of a character that has a certain, definite sound for one that is more vague and indeterminate, as *ee* for long *e* sounds; *f* for *gh* combinations having this sound; *ch* only as used in *church*, in other places to be changed to *k* or *sh* as the word demanded; all *au* sounds to be spelled *aw*, as daughter, *dawter*; all *ou* sounds to be spelled *ow*, as plough, *plow*;
3. Small marks over the vowels to identify the different sounds; a small stroke placed through the *th* to distinguish its two sounds; and the letters *ow* cast together for the diphthong *ow*. [35]

He defended his ideas saying that "with a few other inconsiderable alterations, (they) would answer every purpose, and render the orthography sufficiently correct and regular." They would tend to "render the pronunciation of the language as uniform as the spelling in books," and would "facilitate the learning of the language." [36]

Probably because of the loud protest of his friends, and his fear of the effect on the sale of his books, Webster was slow to adopt the reforms he advocated. In all the editions of his spelling books during his lifetime he used the orthodox spelling of the time.

In 1806 he published a small *Dictionary*, a prelude to his greatest work of 1828, *An American Dictionary of the English Language*.

In his small *Dictionary* he made an almost clean sweep of whole groups of silent letters. He lopped off final *k*'s in the *ck* group; he changed *re* endings to *er*. He advocated a long list of words spelled phonetically.

But in his large work in 1828, he went back to orthodox spelling in most cases. When in 1838 he revised this work, he abandoned many spellings that had been retained in the 1828 edition.

Webster, then a man in his eighties, died in 1843 and the rights to his dictionary were sold to the Merriam brothers. By the edition of 1854 most of the innovations had disappeared in preference for orthodox spellings.

His influence was tremendous, tho, thru his spelling books and his American dictionary; and there are some changes for which he may be credited, altho they may not have been his originally. The *or* as preferred to *our* endings; *er* rather than *re* endings; the use of *s* in some words in preference to *c*; most of these distinctly American spellings can be credited to Webster.

Because of the great public interest aroused in spelling, the American Philological Association in 1875 appointed a group of college professors to look into the problem. They reported in the following year that a revision of spelling was urgent, and that 11 new spellings should be adopted at once. They were to be: *ar*, *catalog*, *definit*, *gard*, *giv*, *hav*, *liv*, *tho*, *thru*, and *wisht*. [37] The only one this present writer would take issue with is the last. Did they intend, then, to change *all* past tense inflections to *t*?

The same year, in 1876, there was an International Convention for the Amendment of English Orthography at Philadelphia. There were several delegates present from England. Out of this grew the Spelling Reform Association, which immediately endorsed the suggested new spellings of the committee of college professors. This marked the beginning of an era of cooperation between learned men from both English speaking countries.

Three of these men were:

- (1) Max Mueller, Professor of Comparative Philology, Oxford University, England;
- (2) Thomas R. Lounsbury, Professor of English, Sheffield Scientific School, Yale University, and author of *English Spelling and Spelling Reform*, 1909;
- (3) Brander Matthews, Professor of Literature and Dramatic Literature, Columbia University, to whom T. R. Lounsbury dedicated his above mentioned book in this manner, "To Brander Matthews, as a tribute to a fellow combatant in a common cause, and a testimonial of the long-continued friendship of years."

In 1877 the American Philological Association adopted an alphabet which, according to a publication relating the event, had the effect that ". . . all the other alfabetic schemes sank into wholesum retirement, and from that day this alfabet has been the only one that has held a place in the regard of scholars or of moderate and sensibl reformers." [38]

The alphabet consisted of 26 letters - 23 old ones and three new ones, a letter for the *a* as in *ask*, *alms*, and *far* (the old italic *a* was the script for the letter a); a letter for the *o* as in *not*, *nor*, and *horse* (this letter was made like the *o* with a curved line thru it); and a *u* for what we would consider the short sound of that letter (to be shown like a small capital *U*). *K*, *q*, and *x* being considered superflous, were excluded. [39] The soft *th* as in *this*, *then* was to be shown by the combination *dh*; the long *i* was to be shown by *ai*, the *ou* by *au*; the *oi* was to be consistently *oi* with the *o* marked with a curved line in it regardless of where it occurred in the word. The letter *o* (sometimes with a circumflex  $\hat{o}$ ) was reserved for long *O*. As for the long *u*, it was to be spelled *iu*. A digraph, *zh* was to be used for the sound in *azure*.

A sample sentence with this spelling is given:

"Dhi contect wil suggest dhi rait wurd, if it duz not suggest itself, and dhi veri frîcwensi ov occurens hwich thrusts dhem at wuns upon dhi unpractist *ai* sîn mêcs dhem familyar." [40]

This writer cannot agree with any of the suggestions given on the alphabet. There are satisfactory and reasonable ways of showing these sound elements. As for the *a* as in *ask*, *alms*, and *jar*, the vowel sound is either controlled by the *r* which follows it, or when *a* is followed by *l* the vowel sound is often affected. [41] There are ways of showing the long and short vowels. One basic rule (which could be made consistent) is that when two vowels appear together in a syllable, the first vowel is long and the second is silent. [42] Therefore the suggestions concerning *ai* and *iu* go against a basic rule. Why *oi* and *zh* were singled out for consideration, and such combinations as *gh* allowed to remain unchallenged, is difficult to understand when it is known that in the most commonly used words the *oi* combination is spelled *oi* regularly 21 times, and *oy* nine times. [43] (The regular use of *y* as a vowel is to replace *i*, particularly short *i* at the end of a word.) This, in English spelling, is remarkably regular. The *zh* sound occurs only six times, and four of those times it is spelled with the use of *su*. [44] The combination *gh*, on the other hand, is silent 43 times [45] and has the sound of *f* six times. [46] This is an example of gross irregularity.

In 1880, the Philological Society of England issued a pamphlet advising various "partial corrections of English spellings", [47] and in 1896, the American Philological Association published recommendations affecting about 3500 words. Many of these had been suggested by Webster. Mencken says, ". . . the trouble. . . was that they were either too uncouth to be adopted without a long struggle or likely to cause errors in pronunciation ." [48] In the first group he lists *tung* for *tongue*, *ruf* for *rough*, *abuv* for *above*, and *batl* for *battle*. Couthness is a matter of opinion, but *battle* has two syllables and should therefore have two vowels shown. In the second group he lists *cach* for *catch*, and *troble* for *trouble*. One can see his point a bit in the last example altho the present spelling of the word has not brought about a pronunciation of *trou'bel*, which, by analogy, might be expected if pupils were taught to sound out spellings.

However, neither the public in England nor in America could be persuaded to change its spelling habits.

In 1898, the National Education Assoc. stepped in to revive the movement. It proposed that a beginning be made with a very short list of reformed spellings, and listed the following 12: *tho*, *altho*, *thru*, *thruout*, *thoro*, *thoroly*, *thorofare*, *program*, *prolog*, *catalog*, *pedagog*, and *decalog*. [49] Altho the National Education Assoc. used them in its own publications, "The Twelve," as they came to be known, did not generally gain acceptance.

These twelve were sensible spellings, consistent in attacking superfluous letters. However, *prolog*, *pedagog*, and *decalog* are not commonly-used words.

In 1906, the big movement for a simplified spelling got under way with the establishment of the Simplified Spelling Board. Andrew Carnegie, wealthy American philanthropist, backed it with gifts and a subsidy to keep it going. The Board at once issued a 300-word list of revised spellings. President Theodore Roosevelt gave it his support, and in August of that year ordered that the Government Printing Office adopt the word list.

The order was a mistake. The Government Printing Office resisted, as did other departments. The whole question became a political football and controversy raged. When the House resolved, on Dec. 14, 1906, that all publications should adhere to the ". . . standard of orthography prescribed in generally accepted dictionaries," it was the cue for Pres. Roosevelt to retreat, which he did [50] He formally withdrew his order to the Public Printer, announcing, however, that he would continue to use it in all White House correspondence.

The efforts of the Simplified Spelling Board went on in spite of Roosevelt's action. Various lists were published from time to time, and pamphlets and bulletins kept the issue alive.

In 1915, Frank Vizetelly, using the recommendations of the American and English Philological Societies and of the Simplified Spelling Board wrote a Dictionary of Simplified Spelling, which was published by Funk & Wagnalls Co. New York.

An examination of this book will show the study attacked the least pressing of our problems. It retained purposeless silent consonants as well as inconsistent vowel combinations.

In 1919, the Board brought out a *Handbook of Simplified Spelling*, and in it summarized its successive recommendations. The list was long - 32 rules, complete with 10 exceptions. They were as follows:

1. When a word begins with or includes *ae* or *oe*, substitute *e*: *esthetic, medieval, subpena*. But retain the digraph at the end of a word: *alumnae*.
2. When *bt* is pronounced *t*, drop the silent *b*: *del, dour, dettor*.
3. When *ceed* is final, spell it *cede*: *excede, procedo, succede*.
4. When *ch* is pronounced like hard *c*, drop the silent *h* except before *e, i*, and *y*: *caracter, clorid, corus*, etc. But retain *architect, chemist, monarchy*. (*C* before *e, i*.)
5. When a double consonant appears before a final silent *e*, drop the last two letters: *bizar, cigaret, creton, gavot, gazel, quartet, program*.
6. When a word ends with a double consonant, substitute a single consonant: *ad, bil, bluf*, etc. But retain *ll* after a long vowel: *all, roll*. And retain *ss* when the word has more than one syllable, as *needleless*.
7. Drop the silent *e* after a consonant preceded by a short stressed vowel: *giv, hav, liv*.
8. Drop the final silent *e* in one syllable words with short vowels: *ar, gon, wer*. But not when sounded as in *there*.
9. Drop the final silent *e* in the unstressed final short syllables, *fide, file, fine, ise, ite*, and *five*: *activ, bromid, de finit, determin, practis, hostil*.
10. Drop the silent *e* after *lv* and *rv*: *involv, twelv, carv, deserv*.
11. Drop the silent *e* after *v* or *z* when preceded by a digraph representing a long vowel or a diphthong: *achiev, frees, gauz, sneez*.
12. Drop the *e* in final *oe* when it is pronounced *o*: *fo, ho, ro, to, wo*. But retain it in inflections: *foes, hoed*.
13. When one of the letters in *ea* is silent, drop it: *bed, bred, brekfast, hart, harth*. But not in: *bead, read, real*.
14. When final *ed* is pronounced *d*, drop the *e*: *cald, carrid, employd, marrid, robd*, etc. But not when a wrong pronunciation would be suggested: *bribed, caned, filed, priced, used*.
15. When final *ed* is pronounced *t*, substitute *t*: *askt, fixt, helpt, adresst, shipt, stopt, stuft, advanst, notist*. But not when a wrong pronunciation will be suggested: *baked, deduced, faced, hoped*.
16. When *ei* is pronounced like *ie* in *brief*, substitute *ie*: *conciat, deciev, iether, reciev, wierd*.
17. When a final *ey* is pronounced *y*, drop the *e*: *barly, chinmy, donky, mony, vally*.
18. When final *gh* is pronounced *f*, substitute *f* and drop the silent letter of the preceding digraph: *enuf, laf, ruf, tuf*.
19. When *gh* is pronounced *g*, drop the silent *h*: *agast, gastly, gost, goal*.
20. When *gm* is final, drop the silent *g*: *apothem, flem, diafram*.
21. When *gue* is final after a consonant, a short vowel, or a digraph representing a long vowel, or a diphthong, drop the silent *ue*: *rung, catalog, harang, sinagog, leag*. But not when a wrong pronunciation would be suggested: *rog* (for *rogue*), *vag* (for *vague*), etc.
22. When a final *ise* is pronounced like *ixe*, substitute *ise*: *advertise, advize, franchize, rize, wine*.

23. When *mb* is final after a short vowel, drop *b*: *bom, crum, dam, lam, lim, thum*.
24. When *ou* before *l* is pronounced *o*, drop *u*: *mold, bolder, sholder*. But not *sol* (for *soul*).
25. When *ough* is final, spell *o*, *u*, or *up*, according to the pronunciation: *altho, tbru, hiccup, do, donut, furlo*.
26. When *our* is final and *ou* is pronounced as a short vowel, drop *u*: *color, honor, labor*.
27. When *ph* is pronounced *f*, substitute *f*: *alfabet, emfasis, fantom, fotograf, fotograf, sulfur, telefone, telegraf*.
28. When *re* is final after any consonant save *c*, substitute *er*: *center, fiber, meter, theater*. But not: *lucer, mediocer*.
29. When *rh* is initial and the *h* is silent, drop it: *retoric, reumatism, rime, rubarb, rithm*.
30. When *sc* is initial and the *c* is silent, drop it: *senery, sented, septer, sience, sissors*.
31. When *u* is silent before a vowel, drop it: *bild, condit, garantee, gard, ges, gide, gild*.
32. When *y* is between consonants, substitute *is*: *analysis, fisic, gipsy, paralyze, rime, silvan, tipe*."

In this list of 32 rules or suggestions, there are many splendid proposals. There is a definite attempt at elimination of unnecessary silent letters. There is this criticism, however: no suggestion is made for the complete elimination of certain irregular combinations. In reference to *gh* particularly, nothing is said of its use in such words as *sight* and *night*, and in *through* and *slough*.

Many rules were weakened or made more difficult to remember because of exceptions. In rules 4 and 28, had the reformers used the letter *k* instead of *c* to represent the sound, there would have been no need for the exceptions, and the suggestions could have been carried out in all the words of that category.

This writer heartily endorses the dropping of the final "dangling *e*" when it serves no function but to confuse. In rules 14, 15, 21, and 28, however, it is quite apparent that no provision has been made to signify the long and short vowel sounds within a closed syllable, and there is a lack of consideration for the principles involved in the open and closed syllables. Had provision been made for these things, there would have been no need for the weakening exceptions.

Exception must be taken to rule 15 for the reason that it would have added to spelling difficulties by initiating one more ending for the past tense.

One more comment is in order concerning this list. The suggestion in rule 16 violates the principle of two vowels together in a syllable with the first one having the long sound.

This list deserves special attention for it marked the culmination of a concerted drive which had involved much effort and which had the support of illustrious people. These had involved, among others: President Theodore Roosevelt, whose intervention on its behalf had brought the whole movement into political controversy; and Andrew Carnegie, wealthiest man in the United States, who had subsidized the movement, and may have hindered its progress by his support. One does not become extremely wealthy without hurting someone, and there were many who were very close to the controversy and strife in the steel industry at this time. The National Education Association had also supported the movement.

At the same time this list was published, a smaller leaflet was issued which tried to put the ideas of the longer list into condensed form. Mencken says that the "clumsy novelties (of the abbreviated list) gave the whole spelling reform movement a black eye." [52] This is, of course, a matter of conjecture. But Carnegie's death that same year meant the loss of financial support, and the movement faded.

In 1921 the National Education Association withdrew its endorsement of the reform movement, and during the next few years most of the magazines and newspapers that had adopted its 12 new spellings went back to orthodox forms.

Fourteen years later there was a brief "flare-up" when the *Chicago Tribune* in January, 1935 took up the fight for reformed spelling by announcing that it had adopted 24 simplified spellings and would add others from time to time. Among these were *catalog* for *catalogue*, *cotilion* for *cotillion*, *controled* for *controlled*, *fantom* for *phantom*, *hocky* for *hockey*, *skilful* for *skillful*, *advertisment* for *advertisement*, *harken* for *hearken*, and so on.

Two weeks later it added *agast* for *aghast*, *aile* for *aisle* (altho it is difficult to see much improvement in that change), *bagatel* for *bagatelle*, *bailif* for *bailiff*, *burocracy* for *bureaucracy*, *crum* for *crumb*, and *missil* for *missile*. These were followed by *genuinly* for *genuinely*, *hefer* for *heifer*, *herse* for *hearse*, *staf* for *staff*, *warant* for *warrant*, *doctrin* for *doctrine*, *iland* for *island*, *lether* for *leather*, *traffice* for *traffic*, and *yern* for *yearn*.

But it too retreated under fire, and the orthodox spellings are still with us.

There is still another scheme that should be reported because of the great deal of publicity it received in the early thirties. This was Anglic; and it was thought by many to be the answer to all problems. The publicity it was given suggested substantial financial backing. Anglic came from the University of Upsala, Sweden. A professor of English there, Dr. R. E. Zachrisson, authored it. There were many changes in the vowels. Italics or boldfaced type was used to distinguish syllables as in *kreaet* (create); (the *ae* was printed in darker print). The first sentence of Lincoln's Gettysburg Address is given here in Anglic:

Forskor and sevn yeerz agoe our faadherz braut forth on dhis kontinent a nue naeshon,  
konseevd in liberty, and dedikaeted to dhe propozishon dhat aul men or kreaeted eekwal. [53]

Mencken collected information on schemes that had been projected in his time. They are all more extreme than the schemes reported, since they eliminate letters of the alphabet, substitute symbols, use extensive marking of vowels, and omit unstressed vowels.

An example of this type is the work of Frederick S. Wingfield, formerly of Chicago, now of Denver, which is given here. He suggests a "fwnetik orthqgrafi" and considers that the letters *c*, *j*, *q*, *w*, and *y* are unnecessary and expendable. He would have them represent the vowel sounds in: *at*, *eat*, *ah*, *oh*, and *ooze*, respectively. The Lord's Prayer, according to his system, is difficult to recognize:

Qur Fqdhrr, by qrt in hevnr, hclwd bj dhgi neim. Dhqi Kixdm Kam, dhgi uil bj dan, qn rth cz it  
iz in hevnr. Giv as dhis dei qur deili bred, cnd forgiv as qur dets cz uj forgiv qur detrz. Cnd ljd  
as nqt intu temteishn, bat djlivr as frqm jvl. For dhqin iz dhj kixdm, dhj pquar, cnd dhj glwri  
forevr. Eimen. [54]

It is easy to see why this scheme did not take hold.

A recent news item concerning the controversial will of George Bernard Shaw recalls his interest in a reformed spelling. After his death in 1950, it was disclosed that he had left the bulk of his estate to the reform of the English language. [55] Shaw-like, he laid the foundation for future litigation by providing that if the courts decided such a project was a waste of money, then all of his estate was to go to other organizations. [56]

In Jan. 1960, after months in and out of courts, a small portion of the purported original amount was split among four people for their designs of 44 letter alphabets. [57].

In his writings, Shaw made deliberate efforts at spelling reform and used such spellings as *program*, *catalog*, and *toilet* rather than the orthodox spellings of his days. [58] An examination of his play *Pygmalion* (" . . . whose hero was an enthusiastic phonetic enthusiast. . .") [59] also shows an absence of apostrophes. These innovations, however, were very conservative when one remembers how Shaw took delight in being unorthodox.

At one time he made the comment that, "if the Phoenician alphabet were only turned upside down and enlarged by 17 letters from the Greek alphabet, it would soon pay for the war." [60] One writer interpreted this as meaning that Shaw had designed such an alphabet. [61] The adoption of such an alphabet for the English language would be extremely unlikely.

It is apparent there has been little progress made in attempts to reform English spelling. This investigation has shown that, in spite of this, it is a problem worthy of study in which many people were, and still are, interested.

Surely the time will come when good seed will fall on fertile ground--when suggestions are apt, and people are ready to accept them.

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## Chapter III: A Study Undertaken to Point the Way Toward a More Regular Spelling

The purpose of this study was to find irregularities in a selected list of spelling words, and to suggest ways of respelling them in order to have them conform (1) to the generalities taught in word perception programs; and/or to the established precedent of regular spellings.

### I. Appendixes Explained

*Definition of Terms.* Every area of effort has a vocabulary peculiar to its needs. Appendix I has been added for clarification of terms used in this study.

*Word generalizations employed.* A careful study was made of the teachers' manuals for the basic reading program of three leading series, pre-primer thru 8th grade level .[1][2][3] A classification of this material is listed in Appendix II for reference.

*Word list used in this study is* the basic word list for *Building Spelling Power*, by Paul R. Hanna and Jean S. Hanna. [4]

Based on a previous research study, it is the same list used by James T. Moore in his analysis of phonetic elements.

Of this list, Moore has this to say:

"The investigators undertaking this previous study selected the highest frequency words in the studies of the writing, reading, and speaking of adults and most widely used in spelling. Since the 3000 words included in the vocabulary represent those appearing most frequently in the best-known studies of children's usage, it is believed that this list represents the words most common in children's usage, also those most commonly taught in in the first eight grades.'

This word list of 14 pages makes up Appendix III. Moore's study was used extensively in the analysis of irregularities. His lists of words and the different combinations employed for certain phonetic elements proved most helpful.

### II. General Principles Explained

#### II. General Principles Followed

In the present study, the words were analyzed according to specific areas of consonant irregularities and vowel irregularities.

The words were then respelled. When a word had more than one irregularity, all changes were made at the time of the attack on the first problem area so there would be no subsequent respelling.

*Concerning consonants.* With consonants, it is expected that there is a letter for each single consonant phoneme. Consonants are taught as the more stable of the phonetic elements. The first step was further to stabilize and reduce exceptions at the simplest level.

The main areas of irregularity in the use of single consonants are the *c* (for *k* or *s*), *g* (for *l*), and *s* (for *z*). The letters *c* or *ck* are used oftener to show the *k* sound than is the letter *k*. [6]

In the present study, whenever a word was respelled because of another irregularity and the letter *c* was a part of that word, the word was respelled using the proper letter needed according to the sound, either *s* or *k*.

Depending on the pronunciation of the word, the *s* plural endings may have the sound of either *s* or *z*. The *s* ending should be retained for uniformity whether the sound of that of *s* or *z*. (Editor's note: In my opinion, it would be almost as easy to teach the rule for such endings: For words ending in an unvoiced consonant, add *s* (except for *s*, then add *es*); for words ending in a voiced consonant, add *z* (except for *z*, then add *ez*); for words ending in a vowel, add *z* or *ez*, as sounded).

Whenever a word was attacked for another irregularity and it seemed definitely so indicated, the letter *s* was changed to *z* in the respelling of the base word.

*Concerning vowels.* There is a general recognition that with the numerous vowel sounds there must be combinations of vowels to represent those sounds for which we have no letter of the alphabet.

Every vowel represents the "schwa," or unstressed vowel sound, at some time or another. Respelling in this area was limited to the two-letter combinations, as the *ai* in *mountain*. Preference was given to the use of the first letter of the combination to represent it, as *mountain*, *mountan*.

### III. Specific Suggestions

Specific suggestions for corrections were listed under the headings: (1) consonant irregularities, and (2) vowel irregularities.

#### A. Consonant Irregularities

1. *Eliminate the use of the letter w when it is used as a vowel, either silently or in a digraph with a, o, or e.* (This removes the exception to the general definition of consonants and vowels.)

(a) *The use of ew, ow, and owe, for long o.* In respellings, *oa* replaced *ow* in the closed syllable. Taking advantage of the precedent set by the word *go*, words were respelled with the phonetically correct *o*, alone in the open syllable. Endings to these words would be formed by adding *ed*, *en* or *es*, thus forming a vowel digraph, *oe*, which would be correct in the then closed syllable. Example: *blow* - *blo*, *bloes*. [7]

old	new	old	new
sew	so	owe	o
barrow	arro	borrow	borro
below	belo	bow	bo
blow	blo	crow	kro
bowl	boal	fellow	fello
flow	flo	pillow	pillo
follow	folio	row	ro
glow	glo	shadow	shaddo
grow	gro	show	sho
growth	groeth	shown	shoen
Halloween	Halloeen	slow	slo
hollow	hollo	snow	sno
know	no	snowball	snobaul
known	noen	sorrow	sorro
low	lo	sow	so
meadow	meddo	swallow	swollo
mellow	mello	throw	thro
mow	mo	thrown	throen
narrow	narro	tomorrow	tumorro
own	oan	window	windo
		yellow	yello

The phoneme long *o*, as in *no*, is spelled in twelve different ways: *au, eau, ew, o, oa, oe, o(e)* [8], *oh, ou, ough*, and *ow(e)*. [9]

This one attack on *w* used as a vowel, and the respellings attendant, eliminated three of the eight irregularities in the spelling of that phoneme.

(b) *The use of w with e or ie for diphthongal long u.* In respellings, *yu* was used in an open syllable following the precedent set in *you-yu*. In the closed syllable with the endings *ed* or *es*, the *y* is not needed. Example: *stewed, stewes-study, stues*. When the closed syllable does not have an *e* following, it is added to form a digraph, as in *fuel, feud, student-fuel, fued, stuedent*.

few	fyu	newspaper	nuespaper
jewel	juel	stew	styu
jewelry	juelry	student	student
knew	nyu	interview	intervyu
nephew	neffyu	review	revyu
new	nyu	view	vyyu

The phoneme long *u* as in *use, is* spelled in seven different ways: *eau, ew, iew, u, ue, u(e)* [11] and *you*.

The attack on *w* used as a vowel and the respellings attendant, reduced the spellings of this phoneme to four, three of which conform to phonetic rule.

(c) *The use of w with a for the diphthong au.* In respellings, the *aw* was replaced by the regular *au*.

awe	au	jaw	jau
awful	auful	law	lau
awkward	aukwurd	lawn	laun
dawn	daun	lawyer	lauyer
draw	drau	raw	rau
drawn	draun	saw	sau
		straw	strau

The attack on *w* as a vowel brings into or near regular spelling add but three (*a, al, and oa*) of the irregularities in the spelling of the phoneme *au*, as in *autumn*.

(d) *The use of w with e or o for the sound of long oo, as in room.* In respellings, the *ew* and *wo*, thus used were replaced by the letter *u* to regularly show this long vowel in an open syllable.

blew	blu	flew	flu
hew	chu	grew	gru
crew	kru	screw	skru
drew	dru	threw	thru
		two	to

The phoneme *oo*, as in *moon*, is spelled in 12 different ways: *eu, ew, ieu, o, oe, oo, ou, ough, u, ue, u(e)* and *wo*. [12] The attack on the use of *w* as a vowel, and the respellings attendant, removed two irregular spellings.

2. *Eliminate the use of the combination gh.* This includes its use silently, as a vowel modifier, or when having the sound of the consonant *f*.

(a) *The use of gh silently where it combines with vowels to give the sound of long a.* In respellings, *gh* was replaced with the regular vowel digraph *ai* in the closed syllable, and the regular vowel digraph *ay* at the end of a word.

straight	strait	freight	frait
eight	air	neighbor	nabor
eighteen	aiteen	weight	wait
eighth	aith	sleigh	slay
eighty	airy	weigh	way

The phoneme long *a*, as in *wait*, is spelled in thirteen different ways: *a*, *a(e)*, *ai*, *ai(e)*, *aigh*, *ay*, *e*, *ea*, *ei*, *eig*, *eigh*, *ey*, and *uet*. [13] The attack on *gh*, and the respellings attendant, removed two irregular spellings.

(b) *The use of gh silently where it combines with vowels to give the sound of long i.* In respellings, *gh* was replaced by *ie*, phonetically correct, to show the sound within a closed syllable; and *i* alone, to show the sound in an open syllable. Endings to the latter group would be formed by adding *es* or *ed*, thus forming a vowel digraph, *ie*, phonetically correct in the then closed syllable. Example: *sigh-si*, *sied*.

bright	brier	might	miet
delight	deliet	moonlight	muunliet
fight	fiet	night	niet
flight	flier	right	riet
fright	friet	sight	siet
height	hiet	tight	tiet
light	liet	tonight	tuniet
lightning	lietning	high	hi
		sigh	si

The phoneme long *i*, as in *bite*, is spelled in eleven different ways: *eigh*, *eye*, *i*, *ie*, *i(e)*, *igh*, *oi*, *ue*, *y*, *ye*, and *y(e)*, [14] Of these, five are irregular and three of the remaining are undesirable in the light of the regular use of *y* as a vowel. The attack on *gh* eliminates two of the irregular spellings.

(c) *The use of gh silently where it combines with o to show the sound of long o.* The words were respelled with the regular *o*.

although	aultho	thorough	thoro
doughnut	donut	though	tho

Together with A, 1, (a), this step eliminated four of the irregular spellings of the phoneme, long *o*. [16]

(d) *The use of gh silently where it combines with the vowels o or a to give the sound of au as in autumn.* In respellings these combinations were replaced with the regular *au*.

bought	baut	caught	kaut
brought	braut	daughter	dauter
fought	faut	naughty	nauty
ought	aut	slaughter	slauter
sought	saut	taught	taut
		thought	thaut

The attack on *gh*, and the respellings attendant, removed two of the irregular spellings of the phoneme *au*, as in *autumn*.

(e) *The use of gh silently where it combines with vowels to give the sound of long oo as in moon.* The digraph *uu* was used in the respellings of the phoneme when in a closed syllable; and *u* alone in an open syllable.

through	thru
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Together with A, 1, (e), the attack on *gh*, and the re-spellings attendant, removed three of the irregularities in the twelve spellings of this phoneme.

(f) *The use of gh as the consonant f.* In respellings this combination was replaced by the regular *f*.

laugh	laf	enough	enuf
laughter	lafter	rough	ruf
cough	kof	tough	tuf

The phoneme *f*, as in *fair*, is spelled in four ways: *gh*, *f*, *ff*, and *ph*. [18] The attack on *gh*, and the respellings attendant, removed one of the two irregular spellings.

3. *Stabilize consonant digraphs as to spelling and use.* The consonant digraphs for which there is no single letter that can be used to represent that particular phoneme are: *ch*, *ng*, *sh*, *th*, *wh*, and *zh*.

(a) *The inconsistent spelling and use of the consonant digraph ch.*

(1) *The use of t in tch.* This combination appears to have been instituted to serve the purpose of the doubled consonant in that it follows the short, stressed vowel. There is no instance where similar consideration has been given to any of the other consonant digraphs listed. This study eliminated the *t* in *tch* as unnecessary and confusing. The combination was respelled regularly, *ch*.

butcher	boocher	match	mach
catch	kach	patch	pach
crutch	kruch	pitch	pich
ditch	dich	pitcher	picher
fetch	fech	scratch	scrach
hatch	hach	switch	swich
kitchen	kichen	watch	wach
		witch	wich

This eliminated the irregularity in the spelling of this phoneme.

(2) *The use of ch as the consonant k.* In respellings *ch* was replaced with the regular *k*.

anchor	ankor	echo	ekko
ache	aik	mechanic	mekannik
architecture	arkitekture	orchestra	orkestra
character	karakter	scheme	skeme
chemical	kemmikal	scholar	skollar
chorus	korus	school	skuul
choir	quier	schoolhouse	skuulhows
		stomach	stommak

The phoneme *k*, as in *kite*, is spelled in seven different ways; *c*, *cc*, *ch*, *ck*, *k*, *q*, and *x*. [19] This attack on *ch* used as *k* eliminates one irregularity in its spelling.

(3) *The use of ch as the consonant digraph sh.* These words were respelled with the regular *sh*.

chauffeur	shofer	machinery	mashenery
machine	mashene	parachute	parrashuut

Although there may be other combinations used which, through regional pronunciations or because of poor enunciation, give the general sound of *ch*, this step assured that *ch*, when written, will be used to give only the sound of the consonant digraph *ch*.

The combination *ng* can be considered regular in that whenever it is written it is used to spell the phoneme *ng*, as in *sing*. The only other way of spelling this phoneme is when it is followed by *k*. Then the *g* is omitted, as in *think*. Since this is consistent, no change is needed.

The combination *sh* can be considered regular in that whenever it is written it is used to spell the phoneme *sh*, as in *wish*. There are several ways of spelling this particular phoneme, but *sh* spells this one phoneme and nothing else.

The combination *th* regularly has the two sounds of *th* as in *that* and in *thin*. There are only a very few words in which the *t* and *h* are in different syllables, such as *shorthand*, *outhouse*. While it might be desirable to have a means of discriminating between these two sounds, no other digraphic combination exists which would be an acceptable representation.

(b) *The use of the consonant digraph wh to represent the consonant h.* In respellings *wh* was replaced with the regular *h*.

who	hu	wholesale	holesale
whoever	huevver	wholly	holy
whole	hole	whom	huum
		whose	huuz

This one correction served two purposes. It rendered the spellings of both *wh* and *h* completely regular"

(c) *The use of the consonant digraph ph to represent the consonant f.* In respelling the *ph* was replaced with the regular *f*.

alphabet	alphabet	phonograph	fonograf
atmosphere	atmosphere	photograph	fotograf
autograph	autograph	phrase	fraze
biography	biography	physical	fizzikal
diphtheria	diphtheria	physician	fizzittian
elephant	ellefant	stenographer	stenografer
geography	jeografy	stenography	stenografy
microphone	mikrofone	stratosphere	strattosfere
nephew	neffue	sulphur	sulfur
orphan	orfan	symphony	simfony
pheasant	fezzant	telephone	tellefone
phone	fone	telephoto	tellefoto
		triumph	triumf

This attack on *ph* used as *f*, along with A, 2, (f) [21] and the respellings attendant, eliminated irregularities in the spelling of the phoneme *f*.

(d) *The use of consonant digraph dg and dge as the consonant j.* This combination appears to have been instituted to serve the purpose of the doubled consonant in that it most often follows the short vowel. This study eliminated the *dg* and *dge* as unnecessary and confusing. It was replaced with the regular consonant *j*.

badge	baj	knowledge	nollej
bridge	brij	ledge	lej

edge	ej	lodge	loj
judge	juj	partridge	partrij
judgment	jujment	pledge	plej
		ridge	rij

The phoneme *j*, as in *jug*, is spelled in six ways: *dg*, (*judgment*), *dge* (*edge*), *g* (*gem*), *ge* (*charge*), and *j* (*jug*). This attack on *dg* and *dge*, and the respellings attendant, eliminated two of the irregular spellings of the phoneme.

(e) *The use of the consonant digraph ck as the consonant k.* This combination appears to have been instituted to serve the purpose of the doubled consonant. It always follows the short vowel. In most cases doubling is unnecessary until the adding of an ending shows an accent. [22] In that case there is no logical reason why *k* can not be doubled as well as any other consonant. This study eliminated the *ck* as unnecessary and confusing. It was replaced with the regular *k*.

attack	atak	buckle	bukkel
back	bak	check	chek
backward	bakwurd	checkers	chekkers
black	blak	chick	chik
block	blok	chicken	chikken
brick	brik	clock	klok
buck	buk	crack	krak
bucket	bukket	crackerjack	krakkerjak
deck	dek	pickle	pikkel
dock	dok	pocket	pocket
duck	duk	quick	quik
jacket	jacket	rock	rok
jack-o-lantern	jak-o-lantern	sack	sak
kick	kik	sick	sik
knock	nok	sock	sok
lack	lak	stick	stik
lock	lok	stock	stok
luck	luk	stocking	stokking
lucky	lukky	struck	struk
neck	nek	stuck	stuk
nickel	nikkel	tackle	takkel
o'clock	o'klok	thick	thik
pack	pak	ticket	tikket
package	pakkaj	track	trak
peck	pek	trick	trik
pick	pik	truck	truk
		wreck	rek

The attack on *ch* [23] and *ck* used as *k*, and the respellings attendant, removed two of the irregular spellings of that phoneme and emphasized the proper use of *k* in preference to the letter *c* in its spelling.

4. *Eliminate single silent consonants.* This step did not attack doubled consonants which often serve a purpose in vowel sound identification and accent. [24] The offending silent consonants were removed and the word respelled in line with the regular spelling of the word.

(a) *The use of silent consonant b as in debt.*

debt	det	comb	koam
------	-----	------	------

doubt	dowt	lamb	lam
bomb	bom	limb	lim
climb	klime	tomb	tuum

(b) *The use of silent c, as in scent.*

acquaint	aquaint	science	siens
muscle	mussel	scientific	sientiffik
scenery	senery	scientist	scientist
scent	sent	scissors	sizzors

(c) *The use of silent d, as in adjective.*

adjective	ajjektiv	adjust	ajust
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(d) *The use of silent g as in reign.*

campaign	kampain	foreign	forren
design	dezien	reign	rain
		sign	sien

(e) *The use of silent consonant h, as in ghost.*

exhaust	exaust	hour	owr
exhibit	exibbit	oh	O
ghost	goast	rheumatism	rumatizm
honest	onnest	rhinoceros	rinosseros
honor	onnor	rhythm	rithm

(f) *The use of silent consonant k, as in knife.*

knead	nead	knob	nob
knee	ne	knock	nok
knelt	nelt	knot	not
knew	nu	know	no
knife	nief	knowledge	nollej
knit	nit	known	noan

This step, which eliminated an unnecessary initial silent consonant, made the spelling of the phoneme *n* completely regular and also served to eliminate a problem in dictionary use.

(g) *The use of silent consonant l, as in calf.*

calf	kaf	chalk	chauk
could	kood	shouldn't	shoodn't
couldn't	koodn't	talk	tauk
half	haf	walk	wauk
should	shood	would	wood
		wouldn't	woodn't

(h) *The use of silent consonant n, as in autumn.* The silent *n* becomes voiced when certain suffixes such as *al--autumnal*, *ar--columnar*, and *ity--solemnity*, are added. However, for the more common *s* endings as *autumns*, *columns*, it remains silent. It was the opinion of this writer that the silent *n* should be dropped for use in the base word and added with the suffix when it becomes voiced and necessity demands it.

autumn	autum	condemn	kondem
column	kollum	solemn	sollem

(i) *The use of silent consonant p, as in receipt.*

receipt	reseet
---------	--------

(j) *The use of silent consonant s, as in island.*

island	iland	isle	ile
--------	-------	------	-----

(k) *The use of silent consonant t, as in whistle.*

bristle	brissel	listen	lissen
castle	kassel	often	aufen
fasten	fassen	whistle	whissel
glisten	glissen	bouquet	bokay
hasten	hasen	croquet	krokay
		mortgage	morgaj

This step serves two purposes. It eliminated the silent *t* in *boquet* and *croquet*, and by respelling those two words changed the *qu* to the phonetic *k*. This eliminated the irregularity in the use of *qu* in any capacity but that of showing the regular *kw* sound.

(1) *The use of silent consonant w, as in wrap.* (The *wh* combination was treated in A, 3. (b) [25])

wrap	rap	written	ritten
wreck	rek	wrong	rong
wrist	rist	wrote	rote
write	riet	answer	anser
writing	rieting	sword	sord
		knowledge	nollej

In addition to eliminating the unnecessary silent letter, this step made regular the representation of the phoneme *r* and, as in the preceding step (e) of this series, served to eliminate a problem in dictionary use.

5. *Eliminate the use of g for j.* In respelling the regular letter *j* was used.

advantage	advantaj	damage	dammaj
age	aje	danger	dainjer
agency	ajensy	dangerous	dainjerus
agent	ajent	dirigible	dirijibel
allegiance	alejins	discharge	discharj
angel	ainjel	emergency	emerjensy
apologize	apollojize	encourage	enkurraj
apology	appollojy	energy	ennerjy
arrange	arainj	engine	enjin
bandage	bandaj	exchange	exchainj
cabbage	kabbaj	fuselage	fuselaj
cage	kaje	gem	jem
carriage	karrij	general	jeneral
change	chainj	generous	jenneros
charge	charj	genius	jenius
college	kollej	gentleman	jentelman
contagious	kontajus	genuine	jennuin
cottage	kottaj	geography	jeografy
courage	kurraj	germ	jerm
giant	jiant	oxygen	oxijen
ginger	jinjer	package	pakkaj

gymnasium	jimnasium	page	paje
gypsy	jipsy	pageant	pajjent
huge	huje	passage	passaj
hygiene	hijean	passenger	passenjer
imagine	imajjin	postage	postaj
imagination	imajjination	privilege	privvilej
intelligence	intellijens	range	rainj
intelligent	intellijent	refrigerator	refrijjerator
language	languaj	region	rejin
large	larj	register	rejijster
legislature	lejjislature	religion	relijjin
legislative	lejjislattiv	savage	savvaj
magic	majjik	shortage	shortaj
magician	majjition	stage	staje
manage	mannaj	storage	storaj
marriage	marrij	strange	strainj
mortgage	morgaj	suggest	sugjest
messenger	messenjer	urge	urj
message	messaj	surgeon	surjen
oblige	oblje	vegetable	vejjetabel
orange	oranj	village	villaj
original	orijjinal	voyage	voyaj

6. *Stabilize the use of consonants in final blends.* The final blends of *shəl*, *shən*, and *shəs* are shown with the various combinations: *cial* and *tial* for *shəl*; *cian*, *cien*, *sien*, and *tien* for *shən*; and *cious* and *xious* for *shəs*. [26] Some of these words have for a final sounding consonant in the base word the letter preceding the first vowel of the ending blend, as *associate--association*. Others, such as *found--foundation*, do not.

While some thought was given by this writer to use the letter *s* as the initial letter of the blends since this is the one sounded, it was finally decided that in the interest of minimal change that *tial*, *tion*, and *tius* would make fewer changes in Traditional Orthography.

(a) *The use of cial for shəl in respellings, the combination tial was used.*

commercial	komertial	official	ofittial
judicial	judicial	social	sotial
		special	spettial

(b) *The use of cian for shən. In respellings, the combination tion was used.*

magician	majiccion	musician	muzittion
		physician	fizittion

(c) *The use of cien for shən. In respellings, the combination tion was used.*

efficiency	efittionsy
------------	------------

(d) *The use of xion for shən. In respellings, the combination tion was used.*

complexion	komplection
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(e) *The use of cious for shəs. In respellings, the combination tius was used.*

delicious	delittius	vicious	vittius
		precious	prettius

(f) *The use of xious for shæs.* In respellings, the combination *tius* was used.

anxious                      anktius

7. *Eliminate unnecessary doubled consonants which follow unaccented syllables.* [27]

accompany	akumpany	actress	aktres
accomplish	akomplish	add	ad
account	akownt	addition	adittion
address	addres	egg	eg
address	addres	essential	esential
affair	afair	excellent	exselent
affect	afekt	fall	faul
affection	afektion	farewell	fairwel
afford	aford	fell	fel
all	aul	fill	fil
allegiance	alejins	football	footbaul
announce	anowns	full	fool
announcer	anownser	fuss	fus
appeal	apeal	glass	glas
appear	apear	goodness	goodnes
appendix	apendix	grass	gras
appoint	apoint	guess	ges
appreciate	apretiate	hall	haul
approach	approach	hill	hil
appropriate	apropriat	harness	harness
appropriate	apropriate	ill	il
approve	apruuv	I'll	I'l
approximate	aproximat	inn	in
approximate	aproximate	kill	kil
arrange	arainj	kiss	kis
arrest	arest	less	les
arrive	arive	loss	los
assembly	assembly	mass	mas
assist	asist	mess	mes
associate	asotiate	mill	mil
association	asotiation	miss	mis
assume	asume	moss	mos
assure	ashoor	necessary	nessesary
attach	atach	occasion	okazion
attain	atain	occur	okur
attempt	atempt	odd	od
attend	atend	off	of
attention	atention	official	ofittial
attorney	aturney	pass	pas
ball	baul	pull	pool
balloon	baluun	press	pres
baseball	baisbaul	process	prosses
bell	bel	recess	reses
bill	bil	roll	roal
boss	bos	sell	sel
bull	bool	shall	shal
business	biznes	shell	shel
call	kaul	skill	skil

chill	chil	sleeveless	sleevless
class	klas	small	smaul
cliff	klif	smell	smel
collect	kolekt	snowball	snobaul
collection	kolektion	spell	spel
collector	kolektor	spill	spil
command	komand	stiff	stif
commence	komens	still	stil
commercial	komertial	stuff	stuf
commision	komittion	sufficient	sufittient
committee	komittee	supply	supli
communicate	komunikate	support	suport
community	komunity	suppose	supoze
compass	kompas	surrender	surender
Congress	kongres	swell	swel
correct	korekt	tall	taul
cross	kros	tariff	tarrif
dessert	dezert	tell	tel
doll	dol	terrific	teriffik
dress	dres	till	til
drill	dril	toss	tos
dull	dul	wall	waul
effect	efekt	well	wel
efficiency	effittiensy	will	wil

Endings formed for these words would follow regular rule, [28] i.e. *tell-tel, tels*; and *success-sukses, sukseseses*.

### B. Vowel Irregularities

Vowels were classified as:

- (1) representing the short sound,
- (2) representing the long sound,
- (3) in diphthongs,
- (4) when controlled by *r*, and
- (5) as the "schwa."

1. *Eliminate the irregularities in the representation of short vowels.* The short vowel is regularly represented by the single letter, preferably in a closed syllable. Other representations are considered irregular.

(a) *The use of au and ua for short a.* In respellings the lone *a* was used.

laugh	laf	laughter	lafter
		guarantee	garrantee

The phoneme *a*, as in *cat*, is spelled in four ways: *a*, *a-e*, *au*, and *ua*. [29] By respelling these combinations the spelling of this phoneme was made completely regular.

(b) *The use of a, ai, ea, ei, ie, and ue for short e.* In respellings the lone *e* was used.

[Editor's note: This is step 1 in SR-1 (Australia)]

any	enny	instead	insted
anybody	ennyboddy	jealous	jellus
anyone	ennywun	lead	led

anything	ennything	leather	lether
anyway	ennyway	meadow	meddo
anywhere	ennywhair	meant	ment
many	menny	pageant	pajjent
again	agen	pheasant	fezzant
against	agenst	pleasant	plezzant
said	sed	pleasure	plezzure
ahead	ahed	read	red
already	aulreddy	ready	reddy
bread	bred	spread	spred
breadth	bredth	steady	steddy
breakfast	breakfast	sweat	swet
breast	brest	sweater	swetter
breath	breth	thread	thred
dead	ded	threat	thret
deaf	def	treasure	trezzure
death	deth	wealthy	welthy
endeavor	endevvor	weapon	weapon
feather	fether	weather	wether
head	hed	foreign	forren
health	helth	friend	frend
healthy	helthy	friendship	frendship
heaven	hevven	guess	ges
heavy	hevvy	guest	gest

The phoneme *e*, as in *pet*, is spelled in seven ways: *a*, *ai*, *e*, *ea*, *ei*, *ie*, and *ue*. [30] These respellings eliminated definite irregularities and made the spelling of this phoneme regular.

(c) *The use of ie, i-e, u, ui, and y for short i.* There is some difference of opinion as to when a letter can be said to represent the sound, short *i*. In some cases, (as in last vowel in the word *bucket*), the dictionary used classifies the *i* as spelling this phoneme. This writer is of the opinion that, because of the closeness of vowel sounds to each other and of varying pronunciations, this particular letter *e* could represent either the short *i*, the short *e*, or the schwa. Words with this possibility were not attacked as irregularly spelled.

The letter *y*, used as a vowel, is regularly used at the end of a word. [31] In a closed syllable, used as short *i*, it must be considered irregular.

handkerchief	handkerchif	busy	bizzy
mischieff	mischief	business	biznes
prarie	prairey	minute	minnit
biscuit	biskit	gypsy	jipsy
build	bild	mystery	mistery
built	bilt	myth	mith
circuit	sirkit	physical	fizzikal
analysis	anallisis	physician	fizzittian
bicycle	bisikkel	rhythm	rithm
gymnasium	jimnasium	symphony	simfony
		system	sistem

The adding of endings to words with a final *y* (representing short *i*), creates a major area of irregularity.

A very few of such words end in *ey*, as in *alley*. The plural of these is formed by adding *s*. As soon as this is added and pronounced, the vowel sound in the final ending is more like long *e* than short *i*. The ending then, in this instance, is not only regular [32] but it renders the final syllable regular in that the digraph formed has the long sound of the first vowel, i.e., *alley*, *alleys*.

The largest number of words in this category, [33] however, end in *y* preceded by a consonant. Traditionally, these words form their plurals by changing the final *y* to *i* before adding endings, such as *es*. This makes the combination *ies* giving the vowel sound of long *e*. Since we would expect it to have the sound of long *i*, it is both irregular and confusing.

In this study it is suggested that where a final *y* is preceded by a consonant, the *y* be changed to *ey* before adding the regular endings, i.e. *penny*, *penneys*.

The phoneme short *i*, as in *pin*, is spelled in fourteen different ways, according to Moore's analysis. [34] One of these, *e*, was discussed on the preceding page. [35] This study chose to attack only those letters or combinations which held no such question: [35] *s ie, u, ui, and y* (in a closed syllable). The changes suggested and the respellings attendant removed four gross irregularities in the spelling of this phoneme.

(d) *The use of a for short o*. Regardless of the generalizations taught concerning *a* followed by *l*, this is an extremely confusing area because of such exceptions as: *alcove, alto, balance, and ballot*.

The *a*, thus used, was replaced with the regular *o*.

almond	ommond	wander	wonder
father	fother	want	wont
palm	pom	was	woz
patio	pottio	wash	wosh
quality	quollity	wasn't	wozn't
quantity	quantity	watch	woch
soprano	soprano	water	wotter
swallow	swollo	what	whot

The phoneme short *o*, as in *hot*, has three spellings: *a, o, and ow* (as in *knowledge*). [36] The attack eliminated the problem area of *a*, and the *ow* was eliminated in the attack on silent *w*. [37]

(e) *The use of iou, o, oo, and ou for short u*. The short *u* is closely related in several words to the short *o* sound. The irregular spelling of short *u* with the letter *o* was changed only when the word was respelled for some more obvious discrepancy, such as an unnecessary final *e*, and in the case of *ou* for short *u*. Because of its regular use as the diphthong in *out*, this is a particularly confusing combination for short *u*.

contagious	kontajus	doesn't	duzn't
above	abuv	done	dun
anyone	ennywun	everyone	evverywun
become	bekum	glove	gluv
come	kum	income	inkum
does	duz	love	luv
none	nun	somebody	sumboddy
once	wuns	someone	sumwun
one	wun	something	sumthing
one-fourth	wun-forth	sometimes	sumtimes
some	sum	tongue	tung
blood	blud	flood	flud

country	kuntrey	dangerous	dainjerus
couple	kuppel	enormous	enormous
cousin	kuzzin	famous	famus
double	dubbel	generous	jennerus
enough	enuf	jealous	jellus
rough	ruf	marvelous	marvelus
touch	tuch	nervous	nervus
tough	ruf	numerous	numerus
trouble	trubbel	poisonous	poizonus
young	yung	previous	previus
courteous	kurteus	serious	serius
curious	kurius	various	varrius

The phoneme short *u*, as in *cut*, has four spellings: *u*, *o*, *oo*, and *ou*. [38] The attack on *u*, *o* (modified), *oo*, and *ou* removed the most obvious irregularities.

2. *Stabilize the representation of the long vowels.* The long vowel sound is regularly represented in three ways: with the single letter in an open syllable, with a digraph, and with a final silent *e* as a modifier.

(a) *The use of ai(e), aigh, e, ea, ei, eig, eigh, ey, and uet for long a.* The combinations *aigh*, *eigh*, and *uet* have been touched previously in this study under A, 2. (a) and A, 4. (j), respectively. [39]

praise	praiz	raise	raiz
cafe	kafay	rodeo	rodao
break	brake	great	grate
daybreak	daybrake	steak	stake
reign	rain	reindeer	reindeer
rein	rain	their	thair
convey	konvay	prey	pray
obey	obay	they	thay

The phoneme long *a*, as in *cape*, has thirteen spellings. [40] Of these, four, *a*, *ai*, *a(e)*, and *ay* are phonetically correct." The attack on irregularities in this study made the spelling of this phoneme regular within phonetic rule.

(b) *The use of ea(e), ee(e), ei(e), i, i(e), ie, ie(e), and ui for long e.* The digraph *eo* appears in only one case in this list. In the five cases with a digraph and the silent terminal *e*, the latter is unnecessary. In the case of *ie* and *ie(e)*, these are misleading, so they are respelled using the common *ea* combination which makes up nearly 30% of the long *e* spellings in Moore's analysis. [42]

breathe	breath	weave	weav
disease	diseaz	breeze	breez
grease	greas	cheese	cheez
increase	inkreas	freeze	frees
lease	leas	geese	gees
leave	leav	sleeve	sleev
peace	peas	sleeveless	sleevles
please	pleaz	receive	reseev
release	release	people	pepel
machinery	mashenery	ski	ske
automobile	automobele	magazine	maggazene
gasoline	gassolene	police	polese

machine	mashene	quarantine	quorrantene
belief	beleaf	submarine	submarine
cashier	cashear	priest	priest
chief	cheaf	relief	releaf
field	feald	shield	sheald
grief	greaf	thief	theaf
believe	beleav	niece	neas
fierce	fears	piece	peas
grieve	greav	relieve	releav
hygiene	hijean	mosquito	mosketo

The phoneme long *e*, as in *eat*, is spelled in fifteen ways: *e*, *ea*, *ea(e)*, *e(e)*, *ee*, *ee(e)*, *ei*, *ei(e)*, *eo*, *i*, *i(e)*, *ie*, *ie(e)*, and *ui*. [43] The attacks in this study reduce the number to six, a still large figure. However, all remaining are within a regular rule.

(c) *The use of eigh, eye, igh, oi, uy, y, y(e), ye, and the single letter i in a closed syllable for the phoneme long i.* The use of *eigh* and of *igh* to show long *i* was discussed previously in the attack on the *gh* combination [44]

Because of the confusion surrounding, and the irregularity of, endings involving a final *y*, [45] this writer removed the *y* when used as long *i*. The letter *i*, phonetically correct, used to replace it would take a regular *es* ending which would form a regular trigraph, i.e. *bi*, *bies*.

eye	i	choir	quire
buy	bi	butterfly	butterfli
by	bi	myself	miself
cycle	sikel	notify	notifi
cyclone	siklone	nylon	nilon
deny	deni	occupy	okkupi
	diing	reply	repli
dry	dinamite	shy	shi
dying	dri	sky	ski
dynamite	fli	supply	suppli
fly	fri	try	tri
fry	goodbi	why	whi
	hijean	cry	kri
goodby	multipli	hydroplane	hidroplane
hygiene	mi	analyze	annalize
multiply	stile	type	tipe
my	bi	dye	di
style	diing	behind	behind
bye	bliend	kind	kiend
dyeing	chield	mild	mield
blind	fiend	mind	miend
child	griend	ninth	nienth
find	hiend	wild	wield
grind		wind	wiend
hind			

The phoneme long *i*, as in *life*, has twelve different spellings, [46] several of which involve very few words. This study attacked 8 of them, and added one, leaving three representations, all of them phonetically correct.

(d) *The use of au, eau, ew, ou, ough, ow, owe, and the single letter o in a closed syllable for long o.* The use of *ew, ow, and owe*, was discussed previously in the attack on the use of *w* as a vowel. [47] The use of *ough* was discussed in the attack on the use of the *gh* combination. [48]

chauffeur	shofer	bureau	buro
poultry	poaltry	shoulder	shoalder
soul	soal	almost	aulmoast
bold	boald	hold	hoald
both	boath	most	moast
clothes	kloaths	old	oald
clothing	kloathing	only	oonly
cold	koald	post	poast
control	kontroal	sold	soald
don't	doan't	soldier	soaljer
gold	goald	told	toald
		won't	woan't

The phoneme long *o*, as in *home*, has twelve different spellings. [49] This study attacks nine of them, reducing the representations to three, all of them phonetically 15 correct.

(e) *The use of eau, ew, iew, and you for long u.* The use of *ew* and *iew* was discussed previously in the attack on the use of *w* as a vowel. [50] The use of *you* for long *u* is listed under the diphthong *oo*, as in *too*. Dictionaries list both the long *u* and the long *oo* sounds as being involved in its pronunciation. In order to keep the word closer to its original form, the long *oo* sound was chosen to represent the group.

The phoneme long *u*, as in *unit*, has seven different spellings. [51] This study attacked four of them, reducing the representations to three, all of them phonetically correct.

3. *Eliminate the unnecessary use of final, silent e.* The use of final, silent *e* for purposes other than signifying the long vowel sound in the word has resulted in great confusion.

In this position it follows the letters *c* and *g*; follows the letter *v*; and is often used to show the *el*, as in *angel*, or by spelling it *le*, as in *able*.

This study limited the use of final, silent *e* to that of influencing the previous vowel's sound.

The silent *e* following *g* (to signify soft *g*) was attacked previously in eliminating the use of *g* for *j*. [52]

(a) *The use of final e to signify soft c.* The final *e* was dropped and the *c* replaced with *s*.

absence	absens	instance	instans
abundance	abundans	insurance	inshurans
advance	advans	intelligence	intelligens
allegiance	alejins	invoice	invois
announce	anowns	juice	juus
armistice	armistis	justice	justis
audience	audiens	niece	neas
balance	ballans	notice	notis
bounce	bowns	ounce	owns
chance	chans	once	wuns
choice	chois	palace	pallas
circumference	sirkumferens	peace	peas

commence	komens	piece	peas
commerce	kommers	practice	praktis
conference	konferens	presence	prezzens
consequence	konsequens	prince	prins
conscience	konsiens	reference	refferens
convenience	konveniens	rejoice	rejois
dance	dans	reliance	relians
distance	distans	residence	rezzidens
enforce	enfors	sentence	sentens
entrance	entrans	service	servis
experience	experiens	sience	siens
fence	fens	silence	silens
fierce	fears	since	sins
force	fors	source	sors
influence	influens	surface	surfias
ignorance	ignorans	voice	vois

(b) *The use of final le to give the sound of el, as in angel. (anjel)*

able	abel	buckle	bukkel
ankle	ankel	bundle	bundel
apple	appel	candle	kandel
article	artikel	capable	kapabel
axle	axel	castle	kassel
battle	battel	cattle	kattel
bicycle	bisikkel	circle	sirkel
bottle	bottel	couple	kuppel
bridle	bridel	cycle	sikel
bristle	brissel	dirigible	dirijibel
bubble	bubbel	double	dubbel
eagle	eagel	puzzle	puzzel
example	exampel	reliable	reliabel
feeble	feebel	responsible	responsibel
gentleman	jentelman	rifle	rifel
gentlemen	jentelmen	saddle	saddel
handle	handel	sample	sampel
horrible	horribel	scramble	skrambel
idle	idel	settle	settel
impossible	impossibel	single	singel
jungle	jungel	simple	simpel
liable	liabel	stable	stabel
little	littel	struggle	struggle
marble	marbel	table	tabel
meddle	meddel	tackle	takkel
middle	middel	terrible	terribel
muscle	mussel	title	titel
needle	needel	tremble	trembel
noble	nobel	triangle	triangel
people	pepel	trouble	trubbel
pickle	pikkel	turtle	turtel
possible	possibel	uncle	unkel
principle	prinsipel	vegetable	vejjetabel
purple	purpel	whistle	whissel

(c) *The use of final re to give the sound of er as in after.*

acre	aker	centre	sender
------	------	--------	--------

(d) *The use of final e after v. Dropped when unnecessary.*

above	abuv	move	muuv
active	aktiv	native	nativ
adjective	ajjektiv	negative	neggativ
approve	apruuv	nerve	nerv
believe	beleav	observe	obzerv
carve	karv	olive	olliv
curve	kurv	preserve	prezerv
deserve	dezerv	positive	pozzitiv
executive	exekktiv	prove	pruuv
forgive	forgiv	receive	reseav
give	giv	relative	rellativ
glove	gluv	relieve	releav
grieve	greav	representative	reprezentativ
have	hav	reserve	rezerv
haven't	havn't	serve	serv
I've	I'v	sleeve	sleev
live	liv	sleeveless	sleevles
love	luv	twelve	twelv
leave	leav	weave	weav

(e) *The use of final e for no apparent reason.* The following words with final *e* have no rule or exception to the rule to justify its presence. The words are grouped according to the letter preceding the final *e* or to the general area involved.

breathe	breath	done	dun
fertile	fertil	everyone	evverywun
become	bekum	none	nun
come	kum	one	wun
handsome	hansum	one-fourth	wun-forth
income	inkum	gone	gon
some	sum	are	ar
somebody	sumboddy	before	befor
someone	sumwun	explore	explor
something	sumthing	fore	for
sometimes	sumtimes	more	mor
determine	determin	ore	or
engine	enjin	shore	shor
examine	exammin	sore	sor
genuine	jennuin	store	stor
imagine	imajjin	tore	tor
medicine	meddisin	were	wer
hygiene	hijean	wore	wor
anyone	ennywun	anywhere	ennywhair
everywhere	evverywhair	house	hows
you're	yuu'r	mouse	mows
arouse	arowz	whose	huuz
course	kors	praise	praiz
because	bekauz	raise	raiz

cause	kauz	noise	noiz
pause	pauz	purchase	purchas
bruise	bruuz	purpose	purpos
cheese	cheez	promise	prommis
geese	gees	expense	expens
grease	greas	defense	defens
disease	diseaz	dense	dens
increase	inkreas	immense	immens
please	pleaz	license	linens
release	releas	sense	sens
choose	chuuz	chocolate	chokkolat
goose	guus	delicate	dellikat
moose	muus	pirate	pirat
coarse	kors	private	privat
hoarse	hors	senate	sennat
horse	hors	cigarette	sigarett
curse	kurs	favorite	favorit
nurse	nurs	opposite	opposit
purse	purs	minute	minnit
verse	vers	route	ruut
worse	wurs	awe	au
eclipse	eklips	breeze	breez
else	els	freeze	frees
false	fauls	league	leag
		tongue	tung

In Moore's analysis he lists final, silent *e* used a total of 577 times. [53] By limiting its use to modifying the preceding vowel sound, this study eliminated one large area of confusion.

4. *Stabilize the combinations used for common diphthongs.* The common diphthongs are: *au*, as in *autumn*, *oo* as in *book* and *moon*, and *oi* as in *oil*. *Ou* as in *out* is considered a diphthong, but this writer feels that it should not be considered one for the phoneme is naturally produced by the letters *ow*, and should be spelled in this way. [54]

(a) *The use of a, al, augh, aw, awe, oa, and ough to show the diphthong au.* The use of *ough* and *ough* was discussed previously in the attack on the use of the combination *gh*. [55] The use of *aw* and *awe* was discussed previously in the attack on the use of *w* as a vowels.

all	aul	fall	faul
almost	aulmoast	false	fauls
already	aulreddy	football	footbaul
also	aulso	hall	haul
although	altho	salt	sault
altogether	aultogether	small	smaul
always	aulways	snowball	snobaul
ball	baul	tall	taul
baseball	basebaul	wall	waul
call	kaul	chalk	chaul
talk	tauk	walk	wauk
abroad	abraud	broad	braud
		broadcast	braudcast

The phoneme *au*, as in *autumn*, represents a delicate area in pronunciation. Many times short *o* in its particular position in a word comes very close to representing this sound.

Although Moore lists other spellings, [57] this writer attacked only those sounds which definitely represented the broad *au*, as in *autumn*, leaving the letter *o*, signifying the *o* as in *off*, as it is spelled.

(b) *The use of o, oo, oul, and u to show the phoneme short oo, as in book.*

wolf	woolf	woman	wooman
could	kood	shouldn't	shoodn't
couldn't	koodn't	would	wood
should	shood	wouldn't	woodn't
bush	boosh	pudding	pooding
bushel	booshel	push	poosh
butcher	boocher	put	poor
cushion	kooshin	sugar	shoogar

The phoneme short *oo*, as in *book*, is another delicate area. Although here, again, Moore lists other spellings, this writer felt justified in attacking only the words listed here as of definitely irregular spelling. The shading of sound from short *o* to short *u* makes the irregularity of other spellings doubtful.

(c) *The use of ew, o, oe, o(e), oo, ou, u, ue, ui, and wo for the phoneme long oo, as in moon.* The use of *ew* and *wo* was discussed previously in the attack on the use of *w* as a vowel.

This writer thinks that, in view of the confusion caused by the use of *oo* to represent two diphthongal phonemes, and the variety of spellings involved in the spelling of the diphthong *oo* as in *moon*, it would be advisable to introduce the spelling *uu* for this particular sound in the closed syllable.

For the open syllable, the letter *u* would be used, because of the nearness in sound of that phoneme to the long *u*.

do	du	to	to
doing	duing	today	tuday
into	intu	together	tugether
canoe	kanu	shoe	shu
lose	luuz	afternoon	afternuun
balloon	baluun	noon	nuun
bedroom	bedruum	pool	puul
bloom	bluum	poor	puur
boost	buust	proof	pruuf
booth	buuth	roof	ruuf
brood	bruud	room	ruum
broom	bruum	root	runt
cartoon	kartuun	schoolhouse	skuulhows
choose	chuuz	scoop	skuup
cool	kuul	shoot	shuut
food	fuud	smooth	smuuth
fool	fuul	soon	suun
foolish	fuulish	spool	spuul
goose	guus	spoon	spuun
hoof	huuf	tool	tuul
hoop	huup	tooth	tuuth

loose	luus	troop	truup
mood	muud	shampoo	shampu
moonlight	muunlite	too	to
moose	muus	zoo	zu
coupon	kupon	you	yu
group	gruup	your	yuur
route	ruut	you're	yu'r
soup	suup	yourself	yuurself
wound	wound	youth	yuuth
assure	ashuur	sugar	shuugar
insurance	inshurans	sure	shuur
true	tru	truth	truuth
bruise	bruuz	juice	juus
fruit	fruit	juicy	juusy
		suit	suut

Moore lists other spellings for the phoneme long *oo*, as in *moon*. [60] However, this writer was careful to attack only those words where the phoneme was definite enough to assure irregularity in representation. This study eliminated ten such irregularities in bringing words into line with the new representation, *uu*.

about	abowt	loudspeaker	lowdspeaker
account	akownt	mountain	mowntin
amount	amownt	mouse	mows
announce	anowns	mouth	mowth
announcer	anownser	noun	mown
around	arownd	ounce	owns
arouse	arowz	our	owr
bounce	bowns	out	owt
bound	bownd	outdoors	owtdors
cloud	klowd	outside	owtside
compound	kompownd	pound	pownd
couch	kowch	pronoun	pronown
council	kownsil	proud	prowd
count	kownt	round	rownd
county	kowntey	route	rowt
doubt	dowt	scout	skowt
flour	flowr	shout	shout
found	fownd	sound	sownd
foundation	fowndation	sour	sowr
fountain	fowntin	south	sowth
ground	grownd	sprout	sprowt
hour	owr	thousand	thowzand
house	hows	trout	trowt
loud	lowd	without	withowt
		wound	wound

Moore lists two spellings for the *ow* as in *cow*. This writer feels that the *ow* is a natural spelling for this phoneme and brought the *ou* spellings into line with the natural *ow*. This study eliminated that one irregularity.

##### 5. Stabilise the representation of vowels controlled by *r*.

(a) *The use of ar(e), ear, and oar to represent ar, as in arm.* The use of *ar(e)*, as in *charge*, was discussed previously in the attack on *e* used to show the soft *g*. [61]

are	ar	aren't	arn't
heart	hart		
guard	gard	guardian	gardian

The phoneme *ar*, as in *car*, needs only these two letters to represent it. There are very few exceptions and these were changed to conform to phonetic rule.

(b) *The use of ear, eir, er, and er(e) to represent air, as in chair.*

care	kare		
bear	bair	tear	tair
pear	pair	wear	wair
their	thair	they're	thay'r
stationery	stationary	wherever	whairevver
very	vary		
anywhere	ennywhair	there	thair
everywhere	evverywhair	where	whair

The phoneme *air*, as in *chair*, has eight spellings: *air*, *ar*, *ar(e)*, *ear*, *eir*, *er*, *er(e)*, and *ey're*. [62] This study leaves only the phonetically adequate: the *air*, the *ar* which in all cases is followed by either *y* or *i*, *ar(e)*, and *ay'r*.

(c) *The use of ear, or, and our to represent the phoneme er as in verb, it as in bird, and ur as in hurt.* Because *er* is a common ending for unaccented suffixes, this combination was avoided in respelling base words.

early	urly	heard	hurd
earn	urn	learn	lurn
earth	urth	search	surch
birch	burch	birth	burth
bird	burd	circus	surkus
attorney	aturney	worry	wurry
word	wurd	worse	wurs
work	wurk	worship	wurship
world	wurld	worst	wurst
worm	wurm	worth	wurth
courage	kurraj	encourage	enkurraj
courteous	kurteus	journal	jurnal
courtesy	kurtesy	journey	journey

The phoneme *er*, as in *verb*, is regularly spelled by the use of *er* or *ur*. By using the *er* only for unaccented syllables and the *ur* in accented syllables, this makes this sound spelled in a consistent manner. These, together with those spellings attacked in this part of the study, make up the total of the representations. [63]

(d) *The use of ear, eer, eir, ier, and irr for the sound fear.* This phoneme has five different spellings. In the respellings, *ea* was used as this is the most frequent usage.

beer	bear	mirror	mearer
bier	bear	peer	pear
cheer	chear	sneer	snear
here	here	steer	stear
jeer	jear	tier	tear

mere	mear	veer	vear
		weird	weard

These respellings make the spelling of this phoneme completely phonetic.

(e) *The use of ar, oar, oor and our to represent or, as in for.*

quarantine	quorrantene	warm	worm
toward	tord	warn	worn
war	wor	warrior	worrier
aboard	abord	hoarse	hors
board	bord	oar	or
coarse	kors	roar	ror
door	dor	floor	flor
course	kors	fourth	forth
court	kort	one-fourth	wun-forth
four	for	pour	por
fourteen	forteen	source	sors

The phonemes *or*, as in *orange*, *order*, and *fort* [64] are regularly spelled with *or*. Although *oar* and *or(e)* follow rules for showing long *o*, they are unnecessary because of the influence of *r*, and add confusing variations in spelling this sound. They were eliminated for this reason.

6. *Eliminate the two vowel combination for showing the schwa sound.*

(a) *The use of ai, ea, eo, ia, and io to show the schwa.*

captain	kaptan	fountain	fowntan
certain	sertan	mountain	mowntan
curtain	kurtan	pageant	pajjent
luncheon	lunchen	surgeon	surjen
allegiance	alejins	cushion	kushin
region	rejin	religion	relijjin

Respelling of the two-vowel combinations showing the schwa sound followed suggestions given previously in this study. [65]

### Footnotes

1. *Ginn Basic Readers Revised* (Palo Alto: Ginn & Co, 1958).
2. *Curriculum Foundation Series*, (Palo Alto: Scott Foresman & Co, 1954).
3. *McKee Reading Series*, (Palo Alto: Houghton, Mifflin Co, 1958).
4. Paul R. Hanna and Jean S. Hanna, *Building Spelling Power*, (Palo Alto, Calif.: Houghton, Mifflin Co,) no date.
5. James T. Moore Jr, "Phonetic Elements Appearing in a 3000 word Spelling Vocabulary," (unpublished Doctorate dissertation, Stanford Univ. 1951.) p. 26.
6. *Ibid.*
7. Appendix II, Rule 9.
8. The symbol (e) following a vowel, represents the *e* separated from the vowel it modifies.
9. & 11. Moore, *op. cit.*, p. 29.
10. Appendix II, rule 10.
11. *Ibid.*
12. 13, 14. *Ibid.*
13. 13, 14. *Ibid.*
14. 13, 14. *Ibid.*
15. Appendix II, Rule 6.
16. Listed, Present Study, p. 9.
17. Listed, Present Study, p. 10.
18. Moore, *op. cit.*, p. 33
19. *Ibid.*
20. Moore, *op. cit.*, pp. 33-4.
21. Present study, p. 10.
22. Appendix II, Rule 20.
23. Present study, p. 10.
24. Appendix II, Rule 20.
25. Present Study, p. 11.
26. Moore, *op. cit.*, p. 39.

27. Appendix II, Rule 20.
28. Appendix II, Rule 22, 23.
29. Moore, *op. cit.*, p. 29.
30. Moore, *op. cit.*, p. 28.
31. Appendix II, Rule 6.
32. Appendix II, Rule 10.
33. Moore, *op. cit.*, p. 29.
34. Ibid. 35. Present Study, p. 13.
36. Moore, *op. cit.*, p. 28.
37. Present Study, p. 12.
38. Moore, *op. cit.*, p. 29.
39. Present Study, p. 10, 12.
40. Listed, Present Study, p. 10.
41. Appendix II, Rule 10.
42. Moore, *op. cit.*, p. 44.
43. Ibid. 44. Present Study, p. 10.
44. Ibid. This is Moore's division of separate sounds for the phoneme, *or*.
45. Present Study, p. 14.
46. Listed, Present Study, p. 10.
47. Present Study, p. 9. 48. Ibid.
49. Listed, Present Study, p. 9.
50. Ibid. 51. Listed, Present Study, p. 9.
52. Present Study, p. 12.
54. Present Study, p. 9.
- 55, 56. Present Study, p. 10.
57. Moore, *op. cit.*, p. 29.
58. Ibid. 59. Present Study, p. 10.
60. Moore, *op. cit.*, p. 60.
61. Present study, p. 15.
62. Moore, *op. cit.*, p. 31.
63. Moore, *op. cit.*, p. 31.
65. Present Study, p. 9.

### **Chapter IV: The Study Summarized**

The specific suggestions offered and explained in Chapter III are summarized below. The sequence and the lettering follow that given in Chapter III which will facilitate cross-reference.

#### Specific Suggestions for Respelling T.O. Summarized

##### **A. Consonant Irregularities**

1. Use of *w* as a vowel.
  - a) With *w* (*ow*) as long *o*.
  - b) With *e* or *ie* (*ew*, *iew*) as long *u*.
  - c) With *a* (*aw*) as *au* in *autumn*.
  - d) With *o* (*ow*) as *ou* in *out*.
  - e) With *e* (*ew*) and *o* (*wo*) as *oo* in *moon*.
2. Use of combination *gh* silently or as a consonant.
  - a) With *ai* or *ei* (*aigh*, *eigh*) as long *a*.
  - b) With *i* (*igh*) as long *i*.
  - c) With *ou* (*ough*) as long *o*.
  - d) With *au* or *ou* (*augh*, *ough*) as *au* in *autumn*.
  - e) With *ou* (*ough*) as *oo* in *moon*.
  - f) In place of consonant *f*.
3. Inconsistent spelling and use of consonant digraphs.
  - a) Stabilization of *ch*.
    - (1) Unnecessary *t* in *tch*.
    - (2) *Ch* used as consonant *k*.
    - (3) *Ch* used as digraph *sh*.
  - b) Use of *wh* as consonant *h*.
  - c) Use of *ph* as consonant *f*.
  - d) Use of *dge* as consonant *j*.
  - e) Use of *ck* as consonant *k*.

#### 4. Silent consonants.

- a) Use of *b* as in *debt* and *climb*.
- b) Use of *c* as in *scissors* and *acquaint*.
- c) Use of *d* as in *adjective*
- d) Use of *g* as in *design*.
- e) Use of *h* as in *hour*.
- f) Use of *k* as in *knee*.
- g) Use of *l* as in *calf*.
- h) Use of *n* as in *autumn*.
- i) Use of *p* as in *receipt*.
- j) Use of *s* as in *island*.
- k) Use of *t* as in *bristle, banquet*.
- l) Use of *w* as in *wrap*.

#### 5. Use of *g* as *j*.

#### 6. Inconsistent use of consonants in final blends.

- a) Use of *cial* and *tial* for *shəl*.
- b) Use of *cian, cien* and *tion* for *shən*.
- c) Use of *cious* and *xious* for *shəs*.

#### 7. Unnecessary doubled consonants.

### **B. Vowel irregularities**

#### 1. Representing the short vowel sounds.

- a) Use of *au* and *ua* as short *a*.
- b) Use of *a, ai, ea, ei, ie, and ue* for short *e*.
- c) Use of *ie, u, ui, and y* for short *i*.
- d) Use of *a* for short *o*.
- e) Use of *ion, o, oo, and ou* for short *u*.

#### 2. Representing the long vowel sounds.

- a) Use of *ai(e), sigh, e, ea, eig, eigh, ey, and uet* for long *a*.
- b) Use of *ea(e), ee(e), ei(e), i, i(e), ie, ie(e), and ui* for long *e*.
- c) Use of *eigh, eye, igh, oi, uy, y, y(e), and ye* for long *i*.
- d) Use of *au, eau, ew, on, ough, ow, and owe* for long *o*.
- e) Use of *eau, ew, iew, and you* for long *u*.

#### 3. The "e on endings" confusion.

- a) Use of *e* after *c* and *g* to signify soft sounds.
- b) Use of *e* after *l* in endings with sound of *el*, as in *angel*.
- c) Use of *e* after *r* in endings with sound of *er*, as in *meter*.
- d) Use of *e* after *v*.
- e) Miscellaneous, Unnecessary final *e* endings.

#### 4. Inconsistent combinations representing diphthongs.

- a) Use of *al, augh, aw, awe, oa, and ough* for *au*.
- b) Use of *oul* for *oo* as in *book*.
- c) Use of *ew, o, oe, o(e), on, ui, and wo* for *oo* as in *food*.

#### 5. Representing the vowel sounds controlled by *r*.

- a) Use of *ar(e), ear, and uar* for *ar*.

- b) Use of *ear*, *eir*, *er*, and *er(e)*, for *air*.
- c) Use of *ear*, *or*, and *our* for *er* and *ur*.
- d) Use of *ear*, *eer*, *eir*, *ier*, and *irr* for *ear*.
- e) Use of *ar*, *oar*, *or(e)*, and *our* for *or*.

6. Two-vowel combinations showing schwa.

The Study Summary Chart (contained in 29 pages, not included here) includes the word with its traditional spelling followed by the form suggested in this study.

The column headed Irregularity Involved refers to the specific suggestions of this study. Reference can be made to the preceding summary and to Chapter III which gives complete explanations.

The columns following designate whether the word was first attacked for: A. Consonant Irregularities, or B. Vowel Irregularities. The number in that column gives the grade in school this word is formally introduced into the spelling program. [1] A further explanation of this point is given in Chapter V under the heading of Recommendations for National Simplification. [2]

For example: The word *able* was attacked for *B*, a vowel irregularity which was discussed in topic 3. Topic 3 refers to the confusing *e* endings and b) refers specifically to the use of *le* to give the *el* sound as in *angel*. This word is introduced into spelling in the fifth grade and because vowel irregularities are attacked second in line, this word would be one of the last in a four section, two cycle program. [3] The word *above* has two irregularities involved, both in the vowel category, etc.

- 1. Hanna & Hanna, *op. cit.*
- 2, 3. Present Study, p. 20.

## Chapter V: Conclusions and Recommendations

### 1. Conclusions

This study has attempted to show that a more regular spelling could be had by respelling irregularly spelled words according to the simplest of phonetic rules taught in the elementary classroom. The resultant spellings should not be upsetting to the public, since respellings were made using letters and letter combinations already familiar in regularly spelled words.

The study attacked the irregularities in the representation of (1) consonants, and (2) vowels.

Briefly stated, in dealing with consonant irregularities, the study:

- 1. Eliminated the use of *w* as a vowel.
- 2. Eliminated unnecessary doubled consonants.
- 3. Eliminated silent consonants.
- 4. Limited the consonant digraphs to *ch* (as in *church*), *ng* (*sing*), *sh*, *th*, and *wh* (*which*).
- 5. Limited the use of *g* to the hard sound, as in *get*.
- 6. Strengthened the regular use of *s* and *k* by replacing *c* with the regular letter in each word attacked for another irregularity.
- 7. Strengthened the regular use of *s* by replacing *c* or *t* in final blends with the regular letter *s*.
- 8. Strengthened the regular use of *z* by replacing *s* with *z* (where it was definitely indicated) in each word attacked for another irregularity.

In addition, the study makes the following recommendations concerning endings for words with final consonants:

- 1. That the regular *s* or *d* alone, be added whenever possible.
- 2. That a vowel be included in a syllable only when necessary to give sound to another syllable.

3. That the final consonant be doubled only when necessary to show an accent to the preceding syllable. Examples: *trik, trikd, triicky, fil, fils, fild, filling, filler*.

In dealing with vowel irregularities, the study:

1. Limited the use of *y* as a vowel, to showing the final short *i*; and to that of replacing *i* in the final position in a syllable for a diphthong or a vowel digraph.
2. Limited the use of final, silent *e* to that of a vowel modifier.
3. Assured that the short vowel phoneme was represented by a single letter.
4. Assured that each vowel digraph was regular.
5. Stabilized vowel diphthongs *au, oo (foot), oo (moon), and ou*.

In addition, the study makes the following recommendations concerning endings for words with final vowels:

1. When a word ends with *y* preceded by a consonant, change the *y* to *ey* before adding the regular *s* and *d* endings. [1]
2. All other words ending in vowels form their endings regularly, adding a vowel only when necessary to form a regular digraph in the ending syllable; or when necessary to show another syllable. Examples: *party, parteys, parteyd, partying. employ, employs, employd, employer. go, goes, going. bi, bies, biing.*

One word often has more than one irregularity in its spelling. In this study, the entire word was corrected when it was respelled for the first irregularity attacked. This eliminated the necessity of a later respelling which, in itself, would be very confusing.

Probably there is no way in which the worth of a revised form of spelling can be tested on an experimental basis. [2] The writer does not feel that this study is necessarily the only answer to the spelling problem, but does feel that it is a practical answer. It is felt that the suggestions in this study could be adopted with much less disturbance than those which have been reviewed in previous chapters. [3]

## **II. Recommendations**

*For national simplification.* With modern means of communication, effectively used, the task of presenting a revised spelling to the public should be simpler than in times past. It is reasonable to assume that an informed public, who understood the reasoning of the project and the steps involved, would be a cooperative public.

It is suggested that the words would be introduced to the public in the order in which they are presented in the language arts program of the elementary school. There will be words commonly used in the various subjects which do not appear in the list of spelling words. They would, of necessity, be included in the project in order to give a consistent pattern of revision.

The present study has been divided and sub-divided into specific areas of irregularity. Each division is a part of the larger whole, but each is likewise complete in itself. When any one irregularity is attacked, all words in that area should be revised so that that specific irregularity is completely eliminated.

The writer suggests that a project could be carried on which would consist of two major steps. The study has been organized with this in mind. Each step would be divided into two sections with the first section dealing with words introduced in the first four grades of school, and the second section dealing with words introduced in the second four grades of school. This two step, four section project would embrace a sixteen year spelling revision program.

At the beginning of each new section of the project, the public would be given a preview of the block of words affected and the reasons for their suggested change. School children would be introduced to them as they came to them in the learning program. Re-introducing them to the public as the child is introduced to them in the classroom should be effective. This would make any change gradual, moving from the simpler words to the more complex words.

The writer believes that consonant irregularities should be the area of attack for the first step. They are more obvious and therefore more readily recognized. The present study has followed this general idea.

There are 1095 words attacked in this study - 587 with consonant irregularities initially [4] considered and 508 with vowel irregularities initially [5] considered. Over a sixteen year period this would average less than eight revisions a month during the nine-month school year. This number of words could be mastered easily by either a student or an adult.

*For further study.* In the present study, the problem of insufficient consonants to show accented syllables was not attacked. This is one area in which further research is necessary. The problem may be illustrated by the following example: *fever*, which is phonetically correct; and *never*, which is not phonetically correct. *Never* should be spelled *nevver*. [6]

It is suggested that this research could very well result in further suggestions for a more regular spelling.

#### **Footnotes.**

[1] Explanation, Present Study, p. 14.

[2] This was written before the i.t.a. experimental teaching projects.

[3] Present Study, p. 3-8.

[4] [5] Present Study, p. 19.

[6]. Appendix 11, Rule 20.

The six-page Bibliography was omitted for lack of space.

### **Appendix I.**

#### **Definition of terms used in the study**

*Alphabet:* a fixed set of characters representing the sounds of a language.

*Blend:* a combination of letters, either vowel or consonant, which blend their sounds in the order in which they appear.

*Consonants:* all the letters of the alphabet which are not vowels.

*digraph:* combination of two letters, either vowel or consonant, which appear together and have only one sound, or phoneme.

*diphthong:* two vowels appearing together to make one speech sound, or phoneme.

*distinctive features:* the sounds in language which are necessary for communication.

*non-distinctive features:* the sounds in language beyond those necessary for meaning. They include tone, pitch, individual nuances, and are personal interpretations not necessary for all communication.

*irregular:* not regular. In this study it defined words deviating from phonetic rules.

*regular:* in this study, words adhering most closely to phonetic rules.

*phoneme:* a single sound, or indivisible sound unit.

*phonetic:* having to do with the science of sounds; in this study applying to rules of phonics in the English language.

*schwa:* identifies the unstressed vowel sound in a syllable: *a* in *about*, *e* in *taken*, *i* in *pencil*, *o* in *lemon*, and *u* in *circus*.

*syllable*: a letter or group of letters having a vowel sound.

*closed syllable*: a syllable which ends with a consonant.

*open syllable*: a syllable which ends with a vowel.

*vowel*: an open sound produced by the voice; a letter representing such a sound. The vowels are: *a*, *e*, *i*, *o*, *u*, and some times *y*.

## Appendix II.

### Word Generalizations Employed

There are 26 rules with 25 exceptions to these rules, (besides some rules that are admittedly not all-inclusive).

### Consonants

*Rule 1.* Consonants include all letters of the alphabet that are not vowels. The vowels are: *a*, *e*, *i*, *o*, *u*, and sometimes *y*.

Exception: the letter *w* is often used as a vowel.

*Rule 2.* Most consonants have only one phoneme.

Exceptions: The most common exceptions are: the letter *c*, which represents both the sound of *s* and the sound of *k*; the letter *g*, which represents the sound of *j* as well as its own regular sound; and *s* which often represents the sound of *z*.

*Rule 3.* When either the consonant *c* or *g* is followed by the vowel *e*, *i*, or *y*, the consonant usually has the soft sound.

Exception: The most common is the letter *g* in such words as *girl* and *get*.

*Rule 4.* Consonants are used singly and in two, three and four consonant blends.

*Rule 5.* A consonant digraph is a combination of two consonants which appear together and have only one sound, or phoneme. Common consonant digraphs are: *ch*, *ng*, *sh*, *th*, and *wh*. In these digraphs there is no single consonant which will give the same sound.

Exception: The combinations *ck*, *kn*, *gh*, *wr*, *mb*, and *ph* are listed as digraphs. *Ck* represents the letter *k*; *kn* represents the letter *n*; *gh* represents the letter *f*, is silent, or influences the vowel preceding it; *wr* represents the letter *r*; *mb* represents *m*, and *ph* represents the letter *f*.

### Vowels

*Rule 6.* The vowels are: *a*, *e*, *i*, *o*, *u*, and sometimes *y*. *Y* is recognized as dual purpose, consonant and vowel. It is regularly used in place of short *i* at the end of a word.

Exceptions: *Y* is often used for long *i*. *W* is often used for a vowel.

*Rule 7.* Each regular vowel letter has a long and short sound. A vowel is often combined with another vowel or vowels to make still another vowel sound. Certain consonants following a vowel may influence it to produce still another sound.

*Rule 8.* A single vowel in a closed syllable has its short sound.

Exception: The schwa sound is neither long nor short and may appear in both open and closed syllables.

Exception: The letter *a* for short *e*; *e*, *o*, and *u*, for short *i*; *a* for short *o*; and *o* for short *u* all appear in the closed syllable.

Exception: There are many digraphs which have the short sound of the vowel.

Exception: A single vowel in a closed syllable may often represent its long vowel.

*Rule 9.* A single vowel in an open syllable has its long sound.

Exception: The schwa sound is neither long nor short and may appear in both open and closed syllables.

Exception: The single vowel in an open syllable often has its short sound.

*Rule 10.* A vowel digraph is a combination of two vowels which appear together and have only one sound or phoneme. In a vowel digraph the first vowel is usually long and the second vowel is silent.

Exception: There are vowel digraphs which show the short sound.

Exceptions: Many vowel digraphs do not show the long sound of the first vowel. Most persistent exceptions are: *ea* for short *e*, *ea* for long *a*, and *ie* for long *e*.

*Rule 11.* A diphthong is a combination of two vowels which come together and combine their two sounds to make one speech sound. Common diphthongs are: *au*, *ou*, *oo* as in *foot*, *oo* as in *moon*, and *oi*.

Exception: These combinations are sometimes used as digraphs.

*Rule 12.* The indefinite, unstressed vowel sound is called schwa. It is represented by each single vowel at some time or other: *a* in *about*, *e* in *taken*, *i* in *pencil*, *o* in *lemon*, and *u* in *circus*.

Exception: Occasionally a digraph represents this sound, as *ai* in *mountain*.

*Rule 13.* When *e* appears on the end of a word with a vowel in it, the vowel is usually long.

Exception: Final *e* following *c* and *g* signify the soft sounds of these consonants; final *e* follows all words ending otherwise in *v*; words ending in a consonant followed by the letter *l* have a final *e* which gives sound to the syllable.

*Rule 14.* The letter *r* immediately following a vowel usually influences the sound of that vowel.

*Rule 15.* The letter *l* immediately following the vowel *a* sometimes influences its sound.

Exception: There are many where the vowel has its regular short sound.

### **Phonetic Parts - Syllables**

*Rule 16.* A syllable is a letter or group of letters having a vowel sound. A syllable should contain a vowel.

Exception: Words ending in a consonant followed by the letter *l* have a final *e* which gives sound to the syllable.

*Rule 17.* There are open and closed syllables. An open syllable is one which ends with a vowel. A closed syllable is one which ends with a consonant.

*Rule 18.* Prefixes, suffixes, and endings, when syllables, are considered as units.

*Rule 19.* Syllables are spoken with varying shades of stress, called accent. Words of more than one syllable may have different combinations of primary (the stronger accent), secondary (the weaker accent), and unstressed or schwa sound (which designates lack of accent).

*Rule 20.* A doubled consonant (*dd*) shows that the syllable it follows has a short stressed vowel sound.

Exception: There are many, including such words as: *appear*, *assist*, *attain*.

### **Structural Analysis**

*Rule 21.* A prefix is a syllable, placed in front of and attached to a word, whose meaning modifies the meaning of the completed word. Common prefixes are: *ex*, *un*, *in*, *dis*, and *inter*.

*Rule 22.* A suffix is a letter or a syllable added to a word which modifies the meaning of the word.

*Rule 23.* Regular nouns are made plural by the addition of *s* or *es* to the base word.

Exception: When a word ends in *y* preceded by a consonant, change the *y* to *i* before adding the ending.

Exception: In certain words ending in *f* or *fe*, change the *f* or *fe* to *v* and add the ending.

*Rule 24.* Regular verbs form their principal parts by adding *d*, *ed*, *ing*, *n*, or *s* to the base word.

Exception: Many verbs double their final consonant before adding endings.

Exception: In many verbs ending with *e*, the final *e* is dropped before adding the endings.

*Rule 25.* Most short adjectives form their comparative and superlative forms by adding, respectively, the suffix- *er* and *est*.

*Rule 26.* Many adverbs are formed by adding *ly* to the verb or adjective form.

Exception. In the words ending with *y*, the *y* is changed to *i* before adding the endings.

### **Example of prose written in this simplified spelling, From Inaugural Address of President John F. Kennedy.**

In the long history uv the wurld, oanly a fue jenniferations hav ben granted the role uv defending freedom in its ovr uv maximum dainjer. I du not shrink from this responsibility - i welkum it. I du not beleav that enny uv us wood exchainj plases with enny uther pepel or ennyuther jenniferation.

The ennerjey, the faith, the devotion which we bring in this endeever wil liet owr kuntrey and aul hu serv it - and the glo from that fier kan truuly liet the wurd.

And so, my fello Amerrikans: ask not whot yuur kuntrey kan du for yu - ask whot yu kan du for yuur kuntrey.

My fello sitizens uv the wurld: ask not whot Amerrika wil du for yu, but whot tugether we kan du for the freedom uv man.

### **This system in nonsense prose - Sokitumi - the Depleted Prose**

The poet Thoro woz thuro in hiz vallidiktion uv the quester riet in the shades uv niet wur fauling over the meddoes, how to now we plow thru the brooks, puuls, and fool mowntins. Ununktius iz the slietley emaskulated epittome anallogus tu nuvo reash in its thorogated thauts. Calligraf the fotoftismatik notion that Alis, liek enny ait arkaiik kofs ar plowed asunder. Seak the sprietley leotard in the slu uv the Bask and kalliftaktigate hiz ausum uneak unikorn unionized agenst the magnifisent sents and aksents akownt in the primugal forest sins sents at sinsereley expensive. Obeas and blimey at the fassets uv the squirley terodaktil in hiz fliet tu avoid aiarsitey. Tiz enuf tu bring kandessens tu an isomorfik isoplethik Kuukabuta in the kowrbuush, even if yu doant no whot that means. The nottey nauttey problem aud the odd prokrustians in the kom komma and the pom uv pommel. Polley Pauley kaut a kot in Maud Moll's auto with Otto Fauks' fox. I yurn for iurn tu diev in the Ying-yang rivver in a wet diver's suut. The thin thikknes uv Theandora thanks the thenndar with thithers and thekka in Wethikk. Profligait thi thi with this thissel but not nauttey did Don daun bother boeth dauter and dotter. Kash yuur church unktion suspishusley. If yu doant survive this emaskulated vursion uv aid-deprived proze, perhaps yu wil du better next time. (Noat: aul wurds must,be transkribed, inkluding pursonal names.)

Editor's note: This system has saved five lines of print over the T O. version in the same type, or about 18% space. The article, *Nonsense Prose as a Test of the Efficiency of a Fonetik Spelling System*, was in the Spring, 1970 issue of this magazine.