

Spelling Reform Anthology edited by Newell W. Tune

§9. Spelling in relation to reading, writing, phonetics

The nine articles in this section all show how important it is to have a reliable fit between the spellings and the sounds of words.

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[*Spelling Reform Anthology §9.1 pp138,139 in the printed version*]

[*Spelling Progress Bulletin Spring 1979 pp5-6 in the printed version*]

1. The Problem of a Common Language, by George Bernard Shaw *

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Britain's most distinguished dramatist, whose plays, letters, and postcards have delighted people the world over, George Bernard Shaw, is just a little wiser and older than the Atlantic Monthly, and continues to be one of its liveliest contributors. He was born in Dublin in July, 1856, captured London 20 years later; in 1881 he became the leading spirit of the Fabian Society; and in 1927 he received the Nobel Prize for literature.

Mr. Robert Birley, in his third Reith broadcast, culminating in a call for an international language and selecting the French as the most probable choice (Spanish used to be the favourite), has gone very faithfully and competently all over all the ground that has been surveyed again and again for 100 years past without making any effective impression on either the public or the education authorities. It was all said by Alexander J. Ellis in his century-old book. I am old enough to have heard him lecture, in his velvet skullcap, for which he always apologised. After pleading his phonetic brief, he read Shakespear with Shakespear's pronunciation just as Mr Coghill now reads Chaucer. Since Ellis we have had Pitman and Sweet, Volapuk and Esperanto, and no end of phonetic alphabets and shorthand systems; but we are still entangled in Johnson's absurd etymological bad spelling, wasting years of our lives in writing the single sounds of our language with two, three, four, five letters or more, and turning our children out of our elementary schools after nine years daily instruction unable to speak or write English well enough to qualify them for

clerical or professional appointments. All our phonetic propaganda is sterilised by the dread that the cost of the change would be colossal.

As a matter of fact, it is the cost of Johnsonese spelling that is colossal; so colossal that it is beyond the comprehension of our authorities. Mr Birley may argue 'til Doomsday for an international language, and may plump for French as the best; but no authority will pay any serious attention until he puts the case into figures, and concentrates on labor saving as the only consideration that will cut any ice. The choice between French and English may turn on the fact that in French the very common word *shall* is spelt with eight letters and in English with five, of which one is superfluous. To appreciate this difference, we must begin with the cost in time and labor of writing one alphabetic letter.

Take the word *debt*. Spell it *det*; and write it over and over again for a minute. Then do the same spelling it *debt*. The difference between the number of times you have written *det* and *debt* gives you the difference in time and labor between writing one letter of the alphabet and two.

If, like some of our spelling reformers and phoneticians, you are mathematically silly enough to play the old trick of disguising this difference as a percentage, you will get a figure too small to impress anybody. A percentage may mean a halfpenny or a million pounds sterling, a fraction of a second or 1000 eons, a parish council or a world federation. Keep to the facts. The first fact is that the difference you have counted is the difference per minute. It will prove to be 12 seconds. Therefore, as there are 365 days in the year, the difference is 73 days per individual scribe per year.

How many scribes are there? As the English language goes round the world, the sun never setting on it, it is impossible to ascertain exactly how many people are writing it, not for one minute as an experiment, but for all-time incessantly and perpetually. No matter: a big cross section will be just as conclusive. In the British Commonwealth and the United States of North America there are more than 270,000,000 born writers and speakers of English. Of these the proportion of authors, journalists, clerks, accountants, scholars, private correspondents and others writing continually and simultaneously all round the clock may safely be taken as one in every hundred, making 2,700,000. Multiply this figure by the 73 days. The answer is that every year in the cross section alone we are wasting 540,000 years of time and labor which we could save by spelling English phonetically enough for all practical purposes, adding to the Johnsonese alphabet 14 letters, all of which can be borrowed provisionally from the stocks now held by our printers for setting up foreign and classical grammars, algebras, and the like.

I have left India, Pakistan, and Ceylon out of the calculation with their 400,000,000, whose dozen dialects are giving way to English. They would make the figures too enormous to be credible. One could only laugh. Enough to note that there is no industrial company on earth that would not scrap and replace its plant, at whatever cost, to save in the cost of production a fraction of such magnitudes. In the face of them, it is folly to prattle vainly for the thousandth time about universal languages, teaching children to read, standard pronunciation, and the rest of the argy bargy our politicians keep regurgitating.

It is *Johnsonese* that we cannot afford, not a forty-letter alphabet. For more than seventy years I have written books, plays, articles, and private letters, in legible phonetics, and thereby added at least two months every year to my productive lifetime as compared to Shakespear and Dickens,

who had to write their works in long hand, though Dickens was adept at reporting shorthand, which is unreadable by printers and typists.

I do not pretend to know what language will become the international, though I agree with Mr. Birley that it will not be an artificial one. The fittest will survive. My guess is Pidgin English, the *lingua franca* of the Chinese coolie, the Australian black boy, and the traders and seafarers who employ them. In commercial Johnsonese we write, "I regret to have to inform you that it is not possible for me to entertain the proposal of your esteemed letter." In Pidgin this is, "Sorry, no can do." Pidgin, spoken or phonetically spelt, is a labor saving device which leads the harvester, the internal combustion engine, and the telephone nowhere.

The case of children learning to read is an overworked bugbear. Children learn to read and write by sight, not by sound. [1] Those who have deficient visual memory spell phonetically and make spelling mistakes that are phonetic attempts at spelling. Blind children read by touch, deaf ones lip read. I cannot remember any time when a page of print was unintelligible to me; so I can hardly have suffered much when learning.

Children should be taught to spell phonetically (as they speak) and corrected only when their spelling betrays a mispronunciation, which for the present may be taken to mean a departure from the usage of Mr. Hibberd, chief announcer to the British Broadcasting Corp. His vowels are much more representative and agreeable than those common to the University of Oxford and the Isle of Dogs.

A Cockney who pronounces his French in the accent of Stratford-atte-Bowe is actually more intelligible in France than the phonetic virtuoso who pronounces all but perfectly, barely a hundredth of every vowel being off the mark. The foreigner whose schooltaught English is excellent the day he arrives here speaks broken English after a year's residence, finding it quite sufficient for his purposes and an innocent amusement for his neighbors. All teachers should bear in mind that better is the enemy of good enough, and perfection not possible on any terms. Language need not and should not be taught beyond the point at which the speaker is understood. Not five minutes should be wasted in teaching a chauffeur who says, "Them hills is very deceiving" to say "These mountain gorges are very deceptive." An English child who says, "I thinked" or "I buyed" is just as intelligible as an adult who says, "I thought" or "I bought."

We say that Time is Money. It is civilisation, art, literature, leisure, pleasure; in short, life more abundant.

[1] GBS meant that this is primarily the custom with our malphonetic spelling. In learning to read in a phonetic spelling system, associative learning (sound and symbol relationship) would aid the beginner until he had developed sufficient practice to recognise words by their familiar faces.

[*Spelling Reform Anthology §9.2 p139 in the printed version*]

[*Spelling Progress Bulletin Spring 1979 p6 in the printed version*]

2. George B. Shaw on Spelling Reform, by Newell W. Tune

It is well known that George Bernard Shaw was a great playwright and that his plays often had parts that were spoken in dialect. Shaw had a keen ear for dialects and was thoroughly familiar with Cockney, Welsh, Irish and several other dialects associated with coal miners, seamen, sheepmen, etc. Because of his interest in dialects, he became acquainted with phoneticians and had early association with two scholars: Henry Sweet, the renowned phonetician, whom he met in 1879, and Alexander J. Ellis. Both of these scholars were attempting at that time to reform English spelling. They had a great deal of influence on Shaw and molded his life, causing him to think along phonetic lines.

So it is only natural that Shaw, when he wanted to write into one of his plays a certain character whose dialect was distinct, tried to devise some sort of a system to depict with reasonable accuracy the sounds of the dialect in question. This he had found almost impossible to do in English spelling due to the lack of uniformity of pronunciation associated with the single letters or even the usual digraphs. Shaw, in discussing pronunciation and dialects in an epilogue, "Notes to Captain Brassbound's Conversion," brought out these remarks: "The fact that English is spelt conventionally and not phonetically makes the art of recording speech almost impossible. Besides there is no standard of English pronunciation any more than there is an American one."

G. B. S. accepted the importance of spelling as a guide to pronunciation. He said, "The influence of the printed word over pronunciation can hardly be exaggerated." He conceded that the tendency for a Cockney to substitute a W for the V-sound became less as "the moment the masses learned to read, they stopped saying 'werry' for 'very' and 'inwualuable' for 'invaluable.' Just so far as our spelling was phonetic, it helped and corrected them."

He then concluded logically that our spelling had lost touch with the spoken language and that "the flagrant corruptions of the sounds are directly due to the unphonetic spelling of our orthography, and nothing but a thorough reform will avail." All his arguments throughout his correspondence runs in this vein: "you must either let our spelling alone or else reform it phonetically."

Shaw even said that our spelling does harm to our literature because it obscures the changes occurring in our language - which probably would not have occurred if at some time some one in authority had called a halt to our unphonetic spelling and had decreed that henceforth English should be spelt as it is pronounced. Shaw said, "All that the conventional spelling has done is to conceal the one change that a phonetic spelling might have checked: namely, the changes in pronunciation, including the waves of debasement that produced the half rural Cockney of Sam Weller and the modern Cockney of Drinkwater in 'Captain Brassbound's Conversion'."

With a conventional spelling that is so difficult to master that only a few scholars ever do it in a reasonable length of time, that is the reason for English not becoming the World Universal language. Certainly, of all the European languages, English has the easiest grammar, and the best form of structure which gives the most clear, uncluttered meanings. And except for Latin, is the best language for giving clear, thoroughly understandable directions. But only its spelling is the drawback which prevents English from attaining the worthy goal of the Universal Language. "I therefore respectfully advise the President and the Board to take the bull by the horns without wasting further time and enlarge the alphabet until our consonants and vowels are for all practical purposes separately represented, and defined by rhyming with words in daily use. We shall then get a word notation which may be strange at first (which does not matter), but which will be neither ludicrous nor apparently ignorant (which does matter)." How much better off would we be today if the government had heeded his advice!

Reference: Tauber, Abraham: *G. B. Shaw on Language*, Philosophical Library, 1963.

[Spelling Reform Anthology §9.3 p140 in the printed version]

[Spelling Progress Bulletin Summer 1977 p13 in the printed version]

3. Why Johnny Still Can't Learn to Read, by Newell W. Tune

We see "English is a phonetic language" (Rudolf Flesch, *Why Johnny Can't Read*, p.13), "of course, but has a few more exceptions to the rules than most languages." But because it is mainly phonetic, let us teach our children to read with phonics. But others say, "No, English is mainly non-phonetic, so we must teach them to read by Look-and-Say." But neither of these statements is quite true. Somewhere in between lies the truth (or does the truth lie?). Some say that English spelling is 85% to 88% phonetic. Others say that it is less than 33% phonetic. Who is right?

The ones saying that it is 85% phonetic mean that 85% of the syllables in running text are reasonably stable in indicating the same sound. They would consider "tion" to be phonetic even tho this sound is sometimes represented by "sion." They would consider "ph" as a phonetic symbol because it generally means "f" and not usually something else as in *uphill*, *uphold*, *tophat*, etc. Those saying that English is less than 33% phonetic mean that less than 1/3 of the words in running text are completely and reliably phonetic. They would throw out, as being not reliably phonetic, any word that had one letter in it that was non-phonetic or even silent, such as "reasonable"; yet if you analyze the word letter by letter, you could say that of its 10 letters, 8 are nearly phonetic and 2 are silent. Even this is not quite true - the s has the z-sound and the a has the sound of schwa - so that makes this word only 60% efficient. Yet this is enough to show some teachers that phonics could be used with some advantage on this word.

Where phonics breaks down and fails to give Johnny confidence is in building words out of phonetic elements. Take the word "on" - add an e to it and now it is "won" - put a "t" in front of it and it is "tone." Try another one - take "an" - add "g" and "er" and you have "anger," but now put a "d" in front and both the vowel and the letter "g" change their sound values for no good reason. Our letters seem to have this bad habit of changing their sound values when you add another letter. No wonder Johnny is confused and gives up the struggle as being without common sense or rhyme and reason. Then what? He sits belligerently and defiantly at his desk looking at picture books - which he can understand, and feels that he is too dumb to learn this unreliable language. He has lost all confidence in himself and he would rather get out of it. He defies the teacher to teach him. He finds mere interest in disrupting the classroom by teasing someone who is trying to concentrate on the teacher.

But the teacher, being patient, tries to reach him by telling him: try to figure out each word - to guess at it. She helps him by telling it to him and saying, "Just look at it and say (the word)." So to him, reading becomes either a vast guessing game or a dependence on the teacher.

The teacher tells him there are certain phonetic "rules" that will "help him" unlock the pronunciation of any new word he encounters. Yet after learning the rules, he finds there are so many exceptions which he has to learn, and exceptions to the first exceptions, that he gets lost again. If she doesn't tell him about all these exceptions, he soon finds she has deceived him - and he distrusts her, the printed books, and the school in general.

Perhaps she tries the spelling method of learning: Spell out the word, pronounce it and spell it

again. After several times of this he has learned a few words, just like the Chinese do. But then he has no means of unlocking a new word he may encounter. Well, eventually 8 years later and 4000 or 8000 words later taught Chinese fashion - one word at a time, and Johnny knows something about reading, but is he able to go on to higher education? Can he master the irregularities and inconsistencies of our spelling sufficiently well to be able to read fluently enough to be able to tackle high school and college texts? All too many give up and drop out. They could have been retained in school if they had learned to read in a reliable medium which gave them self-confidence.

What we need is not millions of dollars for better schools and better teachers, but the one fundamental tool lacking to give Johnny self-confidence - a system of simplified, reasonably phonemic spelling. Until we get it, we can try every *method* imaginable and still not be able to keep the dropouts from dropping out. Until our higher authorities in the educational field wake up and realize this, they are only blindly grasping at straws.

[*Spelling Reform Anthology §9.4 pp140-142 in the printed version*]

[*Spelling Progress Bulletin Spring 1969 pp10-12 in the printed version*]

4. How Phonemic is English Spelling, by Godfrey Dewey, Ed. D. *

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How phonemic is English spelling? For a variety of reasons, no simple direct answer to our question is possible, and statements which failed to define their terms clearly, are meaningless or misleading - usually both. First, therefore let us define our terms.

A completely phonemic spelling of English would have a 1 to 1 phoneme - grapheme correspondence; that is, only one grapheme for each phoneme and only one phoneme for each grapheme. Several symbols for one sound are an obstruction to *writing* (that is, spelling); several sounds for one syllable are an obstruction to *reading*. Both factors are present in our traditional orthography (T.O.) to a high degree. Thus, the current edition of *How we spell!*, **[1]** formally *English Heterography*, identifies in a single abridged dictionary, 530 spellings of 41 sounds, employing 273 different symbols, that is 12.9 graphemes per phoneme, 1.9 phonemes per grapheme.

Consider the principal factors involved in determining the degree to which English spelling is phonemic.

Measurement may be based on running words (connected matter, or weighted word frequency lists); on unweighted lists of frequent words; or on a dictionary. The first is the more important for the teaching of reading, especially where a phonemic initial teaching medium such as i.t.a. is involved; the second is more useful for the teaching of writing (more particularly, spelling); the third is least valuable except as a matter of linguistic research. The basis of any pronouncement should be clearly stated, always.

Whatever the corpus of the study, results may be stated in terms of the spelling of phonemes, of

syllables, or of words. Again, the basis should be clearly stated. A measurement in terms of words will be more immediately intelligible to the average layman.

In addition to the foregoing, the number of phonemes distinguished will quite obviously affect any measurement. For the untrained ear of the general public, the most practical number is somewhere between 39 and 44, probably 41: the traditional 40 sounds of Pitman shorthand, commonly classed as 24 consonants, 12 vowels, and 4 diphthongs, plus schwa, as in the Simpler Spelling Association Phonemic Alphabet. The treatment of the weak, unstressed vowels, in particular, will markedly affect the statistical outcome.

As an example of the influence of the number of phonemes distinguished, Hanna [5] analyzed an unweighted list of some 17,000 frequent words on a 52-phoneme basis reduced from the 62 phonemes distinguished by Merriam-Webster's New Collegiate Dictionary (6th edition 1956) on which he relied. On that 52-phoneme basis, he found 334 different spellings, employing 170-odd different graphemes, or about 63% of the 530 spellings employing 273 different graphemes reported by *How we spell!*, as above. If, however, Hanna's results be restated on a 41-phoneme basis, his findings become only about 281 different spellings, employing substantially the same 170-odd graphemes, or only 53% of the dictionary basis total. My own study [2] of speech sounds (not spelling) analyzed its corpus of 100,000 words of diversified connected reading matter on the 48-phoneme basis of the Revised Scientific Alphabet (Key 1 of the Funk & Wagnall's Unabridged New Standard Dictionary), but reported most of its results on the 41-phoneme basis noted above.

Answers by others to our question, how phonemic (phonetic, regular) is English spelling, range all the way from Hotson, [7] "At present we use 500 symbols for 40 sounds, so that English is 8% phonetic," to Spaulding, [10] "If properly studied and taught, our language is, in fact, almost completely phonetic or regular," based on her statement that 94% of the most used 1,000 words may be spelled correctly by 70 phonograms, manipulated according to 26 rules! In between, Hanna, [6] in the most comprehensive and thoroly researched study to date, arbitrarily assumes 80% (that is, that a particular phoneme will correspond to a particular grapheme in 80% of the different words in which it occurs) as a *criterion* of consistent correspondence to the alphabetic principal; and his findings, in terms of phonemes, approximate that figure, *provided* that further factors such as the position of the phoneme in its syllable are taken into account. When, however, a computer was programmed with an algorithm or rule of procedure, based on the findings of that study, which manipulated 77 graphemes according to 203 rules, it was able to spell just under 50% of the investigated words correctly, and an additional 36% with only one error!

Most statements regarding the phonemic or non-phonemic character of English spelling are based, implicitly at least, on whole words (whether on a running word, word list, or dictionary basis), and usually evaded the phonemic issue by substituting the terms regular or irregular; words which, like charity, can be stretched to cover a multitude of sins. Thus, Laubach, [8] whose extraordinary achievements, "Each one teach one," in promoting literacy in over 300 languages thruout the world are well-known, employs for English a notation of 96 symbols [9] - actually, counting 4 recent additions and 18 doubled consonants, 118 symbols - several of them involving a diacritic, the macron; and describes as "regular" all spellings within the compass of that notation. Parenthetically, this method, which retains the precise T.O. forms of less than 50% of running words, has just achieved highly impressive results in teaching English to Chinese students in Hong Kong.

The farthest out example of such "regularity" is Wijk, [11] who, on the basis of an exhaustive and erudite examination of present-day English orthography, admits to his *Regularized English* 172 graphemes for 50 phonemes (actually 43 phonemes, since 7 are consonant clusters, not single sounds). Some of the graphemes are used for two or three different phonemes; many are supplemented by considerable lists of exceptions; and the problem of unstressed vowels and diphthongs is treated separately. The result is a notation, easy to read, of course, because it preserves so many of the familiar irregularities of T.O., but so complex to apply that it would take a linguistic Ph.D. with an encyclopedic memory to write it according to specifications. Nevertheless, on the basis that this notation preserves the T.O. forms of just over 70% of running words, Wijk implicitly finds T.O. to be 70% "regular."

So far as I am aware, there exist no dependable data on the relative frequency of occurrence of the different *spellings* of the phonemes of English *on a running words basis* - the basis which is most significant to reading, especially if a phonemic notation such as i.t.a. or World English Spelling (WES) is to be employed. I have in progress, however, a study of spellings, [4] to be completed, I hope, this year, based on the same 100,000 word corpus as my earlier study of speech sounds, [2] which will provide for the first time significant data in these terms, including the position of each spelling - initial, medial, final, or alone - in its syllable. When these data become available, the question, how phonemic is English spelling, may be answered *in terms of the occurrence of particular spellings of sounds in running words*, with some assurance. This, however, is an answer to only one facet of the problem.

Since T.O. provides a maximum of 26 letters (three of which - c, q, x - are redundant and contribute nothing to the problem) for a minimum of 39 phonemes, a phonemic standard by which to measure T.O. must obviously, in addition to assigning one explicit phonemic value to each letter, supplement them by a sufficient number of equally explicit letter combinations. Substantially this is done by the spelling reformed version of WES, which, for the basic 40 sounds, assigns a single phonemic value (the same values as in i.t.a.) to each of the 23 useful single letters, and assigns equally explicit phonemic values to 16 digraphs and one trigraph (the majority closely resembling the corresponding i.t.a. characters). To these WES adds 4 vowel-plus-r digraphs, to make the notation equally acceptable to r-keepers and r-droppers; and 2 consonant digraphs (wh for /hw/ and nk for /ngk/) for the sake of compatibility. The WES treatment of the weak unstressed vowels, usually schwa, by retaining in general, any single vowel of T.O., is one of its strongest features; for a specific character for schwa, if it could be made available, would change, unnecessarily, what might otherwise be the exact T.O. forms of perhaps 1 word in 6 on the printed page. This notation is near enough to a substantially phonemic basis to serve as an adequate standard of measurement for approximating an answer to our question, how phonemic is English spelling, by determining what proportion of the words, syllables, or phonemes of T.O. remain the same when transliterated into WES.

For such a qualified answer to our question, let us apply this standard to a significant word list, both unweighted and weighted, and to a representative selection of connected matter.

Table 3 of my study of speech sounds [3] lists 1027 particular words (as distinct from root words, Table 4) which occurred over 10 times in 100,000 words of well-diversified connected matter, representative of English as written and spoken today, and which made up 73,633 of the 100,000 words. Of these, the T.O. forms which are fully phonemic by our standard are:

Unweighted: 229 different words out of 1027 different words, or **22.3% phonemic**.

Weighted: 36,436 total words out of 78,633 total words, or **46.3% phonemic**.

Lincoln's Gettysburg Address, a masterpiece of English literature, which includes most of 41 phonemes in fairly typical proportions, contains (excluding the title) 267 words, 364 syllables, 958 phonemes (1,149 letters). By our standard, the words, syllables, or phonemes which are fully phonemic are:

106 total words out of 267, or **39.7% phonemic** - roughly 40%

173 syllables out of 364, or **47.5% phonemic** - roughly 50%

712 phonemes out of 958, or **74.3% phonemic** - roughly 75%

That is, 106 of the complete words, 173 of the syllables, or 712 of the phonemes were spelt uniformly, according to the WES symbols, exactly as if they would be if the whole selection were translated into WES.

The last figure, which will vary only slightly for longer specimens of connected matter, is probably the most significant single answer presently available, out of the various possible answers, to our original question: How phonemic is English spelling?

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- [3] Op. cit, p. 19-29.
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- [5] Hanna, Paul R., Jean S. Hanna, Richard E. Hodges, Edwin H. Rudolf, Jr. *Phoneme-grapheme correspondences as cues to spelling improvement*, Washington, U.S. Gov' t. Printing Office, 1966 (Doc. OE-32008)
- [6] Op. cit, p. 34.
- [7] Hotson, Clarence, Ph.D. *Ryt Ryting*. Romulus, N.Y. Privately printed, 1965, p. 6.
- [8] Laubach, Frank S. *Learn English the new way*. Syracuse N.Y. Laubach Literacy, Inc. 1967.
- [9] Laubach, Frank S. *Key to correct regular "New Spellingz"* (1 page) Syracuse N.Y. Laubach Literacy, Inc. 1967.
- [10] Spaulding, Romalda B. In *Reading Reform Foundation Conference Proceedings*, New York, 1964, p. 31.
- [11] Wijk, Axel. *Regularized English*. Stockholm, Almqvist & Wiksell, 1959.

[Spelling Reform Anthology §9.5 pp142-145 in the printed version]
[Spelling Progress Bulletin Spring 1969 pp12-15 in the printed version]

5. How Nearly Phonetic is English Spelling? by Newell W. Tune

In the past, it has irked this writer to see several writers state unreservedly that everyone knows that our English spelling is 85% to 88% phonetic and yet offer no definite proof of the statement. This same statement has been repeated time and again by proponents of phonics for teaching Johnny to read. Yet these persuasive and highly articulate writers often do not bother to give proof. One of the early writers of this idea was Rudolph Flesch [1] who in *Why Johnny can't read* stated "All alphabetic systems are phonetic; the two words mean the same thing. The only trouble is that English is a little more irregular than other languages. How much more has been established by three or four independent researchers. They all come up with the same figures. About 13% of all English words are *partly* irregular in their spelling. The other 87% follow fixed rules." Flesch continued with: "Even the 13% are not unphonetic, as Dr. Witty calls it, but usually contain just one irregularly spelled vowel: *done* is pronounced "dun," *one* is pronounced "wun," *are* is pronounced "ar," and so on." Yet Flesch gives no definite reference to where he obtained this figure of 87%. On the other hand, Flesch does give a specific reference to Paul Witty, [2] wherein Witty is quoted as saying, "English is essentially an unphonetic language." (end of Flesch quote). Witty goes on to say, "It contains 26 letters, with which 44 sounds must be associated. Some letters, too, have no phonetic value. The child must read some letters which are absent and disregard some that are present. There are actually 144 ways of representing 13 vowel sounds. One vowel may have from 26 to 30 functions. Gates [4] stated English is phonetic only in accordance with a very complex scheme." (end of Witty quote). Gates [5] also says, "Since English is so unphonetic, the most reliable device for determining which of the many sound-to-letters translations is the correct one is to be able to recall some impression of the visual appearance of the word. This, I believe, is the method adopted by the deaf." And Gates "found that children try to spell extensively by phonetic translation and that a child can use phonetic translation and still be a poor speller." (of English) Also Gates [6] was quoted by Witty, "Gates' study of the phonetic elements of his primary Reading List showing the unphonemic character of the English language even for primary grades, led him to still further doubt the value of *unguided* phonetic generalization."

Is it not surprising, therefore to find remedial methods burdened with phonics? Despite the rather decisive investigations disproving the value of extreme approaches, advocates still maintain that phonetic training confers the unquestioned ability to unlock new words and to pronounce and spell words correctly. In fact, several educators believe that extreme phonetic analysis is essential in the re-education of the poor reader.

This extreme emphasis has had most unfortunate results. It has caused remedial reading to become highly formalized, concentrated largely upon the development of certain specific skills. Since we have seen that serious retardation is associated with numerous and complex forms of behavior, it is clear that such an approach neglects or diverts attention from many really significant factors associated with maladjustment. Poor reading is frequently but one symptom of a basic inadequacy. Inadequate speaking vocabulary is another symptom often found in the culturally disadvantaged child. For how can a child understand words and things not in his world of acquaintance? Moreover, most remedial drills are unfortunate in that they overlook the child's primary purposes in reading silently; to *obtain meaning* from the printed words - to obtain desired or needed information, or to follow happily a worthy recreational pursuit.

Indeed, if English actually were phonetically spelt, phonics would then be a reliable means of unlocking the sound of any new or unfamiliar word encountered. And if English were 87% phonetic as claimed, this phonic method would usually be most successful. But the fact is that such a generality is not reliable when you need it most. The anomalies of English spelling are found most frequently among the commonest, most frequently used words. Ina C. Sartorius [3] explored the usefulness of 38 rules for teaching spelling. She says on page 48, "Inspection of Table XXIX reveals a number of interesting facts. Rules I, IX, and XV have a high percentage of exceptions, while Rule XXVIII has more exceptions than it has regular derivatives (conformals). 13 rules have no exceptions. Of these 13, only Rule XXIV governs more than 50 words, or to be exact, this rule affects only 1.3% of the entire list. Although these 13 rules are consistent, their frequency is certainly low.... Many of the rules as stated are confusing and are parts of more general rules - and are made to avoid exceptions to the general rule. 13 of the 27 rules analyzed deal with learning to spell derived words."

Let us look at Rule XXVIII - words of one syllable having the long sound of the vowel usually end in silent e. Of the 1000 commonest words, "there are 248 words which consistently follow this rule, and 339 exceptions to the rule (leaving 213 words not applicable). There are 79 words which end in final e but do not have the long sound of the vowel. Also 260 one-syllable words do not end in e and yet have the long sound of the vowel. Examples of these last words are: *reach, reel, read, reed, rain, road, sail, bow, say, seat, sight, sleep, spear, stain.*

It must be confusing to the child to try to distinguish which of the vowels carries the long sound of the words that do end in silent e and seem to fit the rule, such as: *seize, seige, cease, and league.* For instance, the first two words might just as consistently have the long-i sound, while the last two words might just as consistently have the long-a sound." She could have added such words as: *eight, height, heinous, either, eider, sieve.*

"Writers of textbooks in spelling have certainly tried to help children generalize on the final e. Still, the most common error found in the study of errors was the adding of a final e to a word or to any syllable of a word. This error appeared 298 times out of a possible 4,091 times, and 'omitting' the final e appeared 151 times. Rules on final e either are not being adequately taught or are not functioning."

"Rule IX-I before e except after c or when sounded as a, as in *neighbor* and *weigh*.

In order to study this rule, it was necessary to count both *ie* and *ei*. Therefore, the total number of words governed by this rule is 131,101 words containing *ie* and 30 containing *ei*. Table XV gives the grade placement of both *ie* and *ei*, 13 of the words having *ei* have the sound of a, and 8 of the *ei* conform to the e after c, therefore, there are 9 exceptions to the rule from the standpoint of *ei*. These exceptions are: *being, seeing, either, neither, foreign, foreigner, height, seize, leisure.* Furthermore, there are 8 exceptions in the *ie* words where *i* follows *c*: as, *society, science, vacancies, ancient, conscience, efficiency, sufficient, and conscientious.*

"Counting the 13 words that sound like a and thinking only in terms of visual appearance, there are 30 words out of 131 that do not conform to the rule."

Dolores Durkin [7] admits that "these kind of inconsistencies, plus the frequency with which they occur, have led linguists to conclude that of all the great languages in the world, English is the most erratic from a phonetic point of view. But this comes as no surprise to teachers."

Arthur W. Heilman [8] conforms this with, "One factor which limits the efficiency of phonic analysis in learning to read English is the fact that the pronunciation of English words does not follow any

consistent patterns. Although English is an alphabetic language in its written form, it is also one of the least phonetically lawful. That is, there is nothing like a one-to-one relationship between letter spellings and letter sounds in English."

Gertrude Hildreth [9] says, "English is a cumbersome vehicle in its printed form, the most inconsistent of the phonetic languages. One cannot depend upon the spelling as a guide to the pronunciation of English words; the pronunciation has to be learned along with the form and meaning. Altho English is, strictly speaking, a phonetic language, of the 350 commonest words that children use, fewer than 200 can be written as they sound." (56%). Then on page 153, "It is estimated that 2/3 of the 600,000 words in an unabridged dictionary contain silent letters - that is, letters not pronounced or letters and letter combinations not distinctly heard: all but four letters, *j*, *g*, *v*, & *x* are silent in some words." And Hildreth [10] says: English spelling is entirely arbitrary. It frequently follows no systematic patterns. Efforts to simplify our irrational spelling have met with scant success. A large number of words are spelled in two or more ways. Furthermore, English spelling is largely non-phonetic in character."

Why then do remedial reading teachers continue to claim that phonics is a *reliable* means for children to unlock the pronunciation of any new words he encounters?

In searching for the origin and originator of this oft-repeated quote - and usually misquoted - we found in the book by Julie Hay and Charles Wingo, "The authors' studies reveal, also, that our language is not purely phonetic. 13% of all English *syllables* are not phonetic. 87% of all syllables in our language *are purely phonetic* (italics are ours) and the words in which unphonetic syllables occur are in part phonetic. Knowing the phonetic facts about our language, therefore, provides the tool with which pupils may recognize instantly nearly all of our English words." They give the following digraphs as being phonetic - *ai, ay, ea, ee, ie, oa, oe, ow* (grow), *ue, ew, oo* (moon), *oo* (look), *au, aw, oi, oy, ou, ow* (cow). There is no specific reference to the authors' studies, nor when or by whom it was published. We are supposed to take it at face value without any questioning. There is no explanation of what constitutes a phonetic word. Nor on what this figure was based - on all the words in the dictionary, or on running text. Can it be that this is the source of the oft-repeated quote?

Further research turns up an earlier predecessor, E.D. Burbank, [12] writing in the *Volta Review* for March, 1920. This gives the exactly same paragraph above quoted by Flesch about "dun" being a perfectly phonetic word. On the next page, Burbank gives his definition of a phonetic word, "A word may be considered phonetic when there is something in the word that tells its pronunciation and when it contains nothing that misleads in the pronunciation * - that is, when the spelling reveals the pronunciation.** To illustrate; *can* is phonetic because each letter has its usual sound; *cane* is phonetic because the final *e* shows that *a* is long; *car* is phonetic because *r* shows that *a* has the so-called Italian sound; *call* is phonetic because the *ll* shows that *a* has the sound of *au* in *haul* or *aw* in *law* or *bawl*, which is the same as *o* in *corn*; and *rage* is phonetic because the final *e* shows that *a* is long and *g* soft."!!!! (explanation marks are ours) He goes on to say, "What is the proportion of phonetic words and syllables in English? There is a very general misapprehension on this point. It is, easy to find inconsistencies in English spelling,.... But, as a matter of fact, out of every seven *syllables*, six are like *dun* and only one is like *done*. An overwhelming majority of the *words and syllables* in English are phonetic." "In English there are about 3,381 monosyllables. (see note no. 3) Of these, 297 or 8.8% are unphonetic, like *gone, said, have, love*; 145 or 4.4% are analogical like *gold, child, bread, find*; 2,939 or 86.9% are phonetic like *mat, sit, cot, set*. These 2,939 words offer little or no difficulty in word recognition to pupils who know the sounds of the letters, the way to blend these sounds, and a few phonetic facts." He then refers to W. Franklin Jones [13] The 2,396 words on the Jones list covering the vocabulary of children in the first three grades have been studied and in these words there are 3,405 syllables. 463 or 13.5% of these

syllables are unphonetic. From this study it appears that the % of phonetic syllables in polysyllabic words is almost exactly the same as the % of phonetic words among monosyllables: Willis L.Uhl [14] does not quite agree with this. He quotes Burbank with somewhat different figures, "Of the 2,939 phonetic monosyllable words, 1,238 or 42.1% can be pronounced as soon as 30 consonant and vowel sounds are mastered. That is there are 25 consonant sounds in English. When there are added to these 25 consonant sounds, the short vowel sounds of the 5 vowels, 1,238 words can be pronounced."

Another researcher, Patrick J. Groff, [15] asked "The New Iowa Spelling Scale - How phonetic is it? The purpose of this study was to determine (a) the proportion of the *words* in the scale that are not spelled entirely phonetically; (b) the proportion of the *letters* in these words that are not phonetic, or regularly sounded; (c) the spelling difficulties sixth graders have with words that are not spelled entirely phonetically, hereafter referred to as non-phonetic words."

"The New Iowa Spelling Scale is made up 'of a scientifically selected list of 5507 words of high social usefulness.' Investigations have shown the words to be among those most commonly used by adults and children in written communication."

"The original sample for my study included every 5th word of the 5,507 words of the scale. This sample totaled 1,101 words. The sample was then expanded by 550 words to a total of 1,651 words, or 30% of the scale.

"A specially prepared guide was used to decide whether the *letters* in a word represented phonetic spelling. All variant sounds of vowels were considered phonetic spellings. For example, the *a*'s in *fate*, *chaotic*, *care*, *add*, *account*, *arm*, *ask*, *sofa*, and *baby* were all considered phonetic. The following were also considered as phonetic spellings: *g* as in *girl* and in *judge*, *c* as in *cent* and *cold*, *oo* as in *food* and *foot*, *oi* as in *oil*, *ou* as in *out*, *th* as in *thin* and *then*, *ch* as in *chair*, *sh* as in *she*, *ng* as in *ring*." Your attention should be called to the fact that a truly phonetic spelling does not allow a letter or digraph to represent two different sounds, hence with this elastic measuring device we should get a lot more phonetic spellings than with a truly phonetic spelling.

Table 1

% of non-phonetic words and letters in two samples from the New Iowa Spelling Scale.

	sample	total	number	non-phonetic %
<i>words:</i>				
	original	1,101	826	75.0
	expanded	1,651	1,230	74.5
<i>letters:</i>				
	original	7,270	1,369	18.8
	expanded	10,847	2,047	18.9

As Table I shows, about three out of every four words in the New Iowa Spelling Scale *are not spelled entirely phonetically*. However, less than one of every five letters in these words is non-phonetic. (by his elastic scale)

"Table 2 does not substantiate the assumption that a small % of sixth-graders spell non-phonetic words correctly. It shows quite the opposite. Of the non-phonetic words in the sample, 62.5% were spelled correctly by more than half of the sixth-graders. The remainder of the non-phonetic words in the sample, 37.5%, were spelled correctly by less than half of the sixth-graders." (is this supposed to be good?)

In the light of this later work, before we can accept the evidence from Jones and Burbank as being reliable, we must first examine carefully his definition of a phonetic word. According to Burbank, to be phonetic a sound need not be spelled in only one way - merely that something in the word indicates the sound no matter how artificial or complicated the rule for its use. With this elastic ruler or measuring device, one could prove that all men are the same height. They are all reasonably (?) tall (or phonetic). It is now apparent that these investigators stretch their definition to make it fit what they wanted to prove. To refer to Alice in Wonderland, "A word means exactly what I want it to mean."

Now let us see what more up-to-date phonetic experts give as a definition of phonetic words. Dolores Durkin [7] says, "Ideally, at least for purposes of phonics, each symbol or letter in our writing system would represent one speech sound and, in turn, every separate sound would have a single representative symbol. Unfortunately for those learning to read or spell English, this is not the case. Instead, the same sound is represented different words, as in *her*, *first*, *word*, *fur*, *journey*, and *colonel*. In other instances the same letter, or combination of letters, represents a variety of sounds; for example, the *ea* combination in *clean*, *bread*, *break*, and *hearth*. In addition, letters sometimes appear in words but no sounds occur, as in *debt*, *have*, and *gnat*."

The Ransom House Unabridged Dictionary [16] gives, *phonetic alphabet* - an alphabet containing a separate character for each distinguishable speech sound. *Phoneme(s)* - the basic units of sound by which morphemes, words, and sentences are represented. They are arrived at by determining which differences in sound function to indicate a difference in meaning."

Webster's Collegiate Dictionary [17] gives, *phonetic*: 2. Representing sounds, esp. speech sounds; as *phonetic symbols*; specif., made according to or designating a system of spelling in which each letter represents always the same speech sound."

Yet the earlier writers either disregarded these definitions or were woefully ignorant of the dictionary meaning. What they called phonetic was not even the most regular spelling. Which is the most regular of the two oo- or th-spellings? Both cannot be equally regular, since then there is no discrimination between two different sounds. Yet they accepted both. In the case of *tion* and *cion*, while the former may be considered the most usual spelling, it could not by any stretch of the imagination be considered a phonetic spelling, i.e., one in which each letter or letter combination always represents the same sound. Yet if only reliability were considered, it would have to be accepted as a regular means of indicating the /shun/ sound. As for the rule for vowel digraphs, "When two vowels are together, the long sound of the first is heard and the second is usually silent," Theodore Clymer [18] found that this rule has 377 exceptions to 309 conformals, hence is misleading 55% of the time. He then concludes, "If we adhere to the criteria set up at the beginning of the study, of the 45 generalizations, only 18 are useful.... It seems quite clear that many phonic generalizations which are commonly taught, are of limited value. Certainly the study indicates that we should give careful attention to pointing out the many exceptions to most of the generalizations that we teach. Current 'extrinsic' phonics programs which present large numbers of generalizations are open to question on the basis of this study."

In another article on the same subject in this issue of the SPB, data is offered to show how phonemic English spelling is on the basis of words, syllables and phonemes. Now all three of these bases cannot be equally valid to judge English, therefore only one should be considered as the valid basis. Probably not more than one person in a hundred knows how many and what are the phonemes of English. We do not speak, write or think in separate phonemes. In fact, most of the consonant phonemes and some of the vowel phonemes either cannot or can only with difficulty, be pronounced in isolation. Therefore the phoneme is not a satisfactory basis for evaluating the

phoneticness of English spelling. While syllables can be pronounced, and some teachers do encourage pupils to speak and think in syllables, these are not usually meaningful units of speech. Therefore, while academically interesting, they are not a practical basis for comparison. The whole word then is the only logical basis for a valid evaluation of the phoneticness of English. On that basis English is somewhere between 2/9 and 2/5 phonetic in reading matter in running text. The most unfortunate aspect of these figures is that of the 200 commonest words [19] occurring in running text, 107 are not phonetic or regular by any commonly taught rules and another 36 are only regular by the assistance of the silent terminal e rule, the doubled consonant rule and the vowel before r rule, all of which are of questionable value. That makes about 3/4 of these words irregular and difficult to teach.

When are our parents and teachers going to rise up en masse and rebel against the unreliable English spelling and petition their Congressman to simplify our spelling?

*Yet he completely disregards this in the examples he gives.

**This allows silent letters and several symbols for the same sound.

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[Spelling Reform Anthology §9.6 p145 in the printed version]
[Spelling Progress Bulletin Winter 1979 p3 in the printed version]

6. In Defense of a Separate Phoneme for Unstressed Shwa, by Helen B. Bisgard, Ed.D.

Comments on one section of Dr. Katherine Betts' treatise, "Language, Orthography, and the Schwa."

Dr. K. Betts' research paper is comprehensive and states the results of her extensive study with scientific and professional detachment.

After she presented this survey before the British Simplified Spelling Society International Conference of 1979, she answered questions from the audience during the 15 minutes allotted to her, as had been done to other speakers. She stimulated such great interest in her topic that during the subsequent informal discussions at meal times and evening socializing, the shwa was the center of attention. The consensus of opinion held by the groups in which I participated may be summarized as follows: (I use the simpler spelling *shwa*, omitting the German *c*, as in one of the forms recognized by Random House Unabridged Dictionary.)

The Hebrew origin of shwa, "name of a point marking want of a vowel sound," has influenced its English usage. The shwa has for many years signified (1) "an unstressed vowel that is the usual sound of the first and last vowels of *America*" (*Merriam Webster's New Student's Dictionary* 1964), (2) the symbol *a* has represented this unstressed sound in the writings of linguists following the example of the International Phonetic Alphabet (IPA) of 1887. The IPA indicates what is considered a phonetic difference and writes the word *abundant* as [abʌndənt], while K. Betts' paper concentrates upon the phonemic similarity of the vowel sounds and would show the pronunciation as in Merriam-Webster's Dictionary: /əbəndənt/.

The following list compares a traditional spelling of each of the vowels which the public calls "short" and a t.o. pronunciation of each of these vowels, with a system which uses the shwa symbol.

Popular name of vowel sound	t.o. spellings used to denote this sound in syllables receiving stress	Same t.o. spelling used in an unstressed syllable
short a	sandglass	cutlass
short e	pell-mell	camel
short i	sicklist	easily
short o	tom-tom	tomato
short u	abut	halibut

a reformed spelling such as British World English, System 2, these words appear as:

sandglass	kutləs
pel-mel	kaməl
sicklist	eezəli
tom-tom	təmaetə or təmaate
əbut	halibət

When the shwa is defined as indicating lack of stress in syllables where it appears, any other syllables stand out prominently. The readers' eyes can focus on them:

kut	kutləs
kam	kaməl
eez	eezəly
maet or maat	təmaetə
hal	halibət

G. & C. Merriam's Webster's Dictionary and 14 linguists are cited by K. Betts as using the shwa grapheme ə for designating *both* stressed and unstressed allophones. They also inject an additional symbol ' to indicate which syllable of a word is stressed. Their purpose is not the same as that of the orthographic reformer who spells words in such a manner that a reader may subconsciously glance at it as an aid to recognizing the meaning of the entire communication. The orthographic reformer strives for a notation having a self-reading degree of compatibility with t.o. Therefore he employs no diacritics. How fortunate that he has the shwa grapheme to convey lack of syllable stress in addition to sound.

To retain this attribute for indicating lack of stress, the shwa *grapheme* should be reserved for use only in those unstressed syllables. Consequently, since the most frequent spelling for shwa *phoneme* syllables which do receive stress is "short u," it seems expedient to continue employing "short u" in that situation.

Lexicographers may not agree with spelling reform strategists about this but both groups will do well to keep in mind that no one phonemic notation can be best for all purposes.

[Spelling Reform Anthology §9.7 pp146-148 in the printed version]
[Spelling Progress Bulletin, Spring 1980 pp10-12 in the printed version]

7. The Effects of a Simplified Spelling in Children's Readiness to Read **by D. V. Thackray, Ph.D.***

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*This paper was presented at the 2nd International Conference on Reading and Spelling at Nene College, Northampton, England, on July 27-30, 1979. Sponsored by the Simplified Spelling Society.

This report falls fairly naturally into three parts. First I would like to give you the background to the research, then go on to describe the investigation and finally to present the results.

Background to the Research

I have been interested in the field of reading readiness for a number of years. In my first research I tried to determine the relative importance of the generally accepted reading readiness skills, such as visual and auditory discrimination, mental ability and vocabulary development, in learning to read and making progress in reading. Research of this kind has been carried out by American research workers over a period of almost fifty years, from the time reading readiness tests were first published; in England however, to the best of my knowledge, mine was the first experiment of this kind. The reasons for this lack of experimentation in England are firstly, English children begin school when they are five, which is felt to be rather too young an age for widespread testing, and secondly, until recently there were no published British reading readiness tests.

In my first experiment I followed the approach commonly used by American research workers. A representative sample of 183 children was tested in a number of reading readiness skills using an Anglicised version of the American Harrison-Stroud Reading Readiness Profiles (1956), when commencing their second term in school (average age 5 years, 4 months); the children were also tested for three other important factors in reading readiness, namely general ability, home environment, and emotional and personal attitudes. Later when commencing their fourth and fifth terms (average age 6 years; and 6 years, 4 months respectively) the children were given the Southgate Group Reading Test 1 (1959), to measure reading achievement.

The earlier reading readiness results were correlated with the later reading achievement results. And the individual reading readiness skills, which correlated the most highly with reading achievement, were those of visual and auditory discrimination. These correlations were higher than the one for mental age, showing that in this experiment, the readiness skills of visual and auditory discrimination were as important - perhaps more important - than mental age in learning to read in the early stages.

In England, 1961 saw the start of the main i.t.a. experiment under the direction of Prof. John Downing. When describing the differences between i.t.a. and traditional orthography (t.o.), both Pitman (1961) and Downing (1964) have stressed that i.t.a. is simpler both in its visual and auditory characteristics. It is simpler visually because in i.t.a. there is a constant visual pattern for each whole word or sentence; it is simpler from the auditory standpoint because each symbol in i.t.a. stands effectively for its own sound.

Because of its simplicity, protagonists of i.t.a. have suggested that children using i.t.a. should be ready to read at an earlier age than if learning to read with the more complex t.o. Knowing from my first experiment the importance of visual and auditory discrimination, and from the literature that i.t.a. was simpler visually and auditorily, I felt that this hypothesis was a reasonable one and in my

second experiment - the one with which this paper is concerned - I decided to test it experimentally.

Purpose of the Research

So the main purpose of my research then was to test the hypothesis that children learning to read with i.t.a. are ready to read at an earlier age than children learning to read with t.o.

The Investigation

The method of approach was to enlist the co-operation of 16 schools; 8 schools where the children were learning to read with i.t.a. and 8 schools, matched as well as possible with the i.t.a. schools, where the children were learning to read with t.o. The original total sample was 300 children with 150 in each group, but family removals and the matching of the two groups reduced these numbers to 119 in each group during the first two years of the experiment and to 102 children in each group during the third year.

The children in the experiment were studied over a three year period, during which time the children learning to read with i.t.a. had transferred to t.o. and had been given the opportunity to make good any setback in reading achievement experienced after transfer. Reading readiness considerations were the main ones in the investigation, but it was realised that true reading standards, needed for comparison with standards on reading readiness measures, are not established until the children who started to read with i.t.a. have been reading for a reasonable length of time in t.o. after the transfer. So this meant testing and observing the children who were taking part in this experiment over a period of three years.

After being in school for approximately six weeks, all the children in the sample were given the Harrison-Stroud reading readiness tests of visual and auditory discrimination, and also tests of visual and auditory discrimination that I constructed. They were also given the W.I.S.C. (1949), and my own test of vocabulary. At the same time, class teachers of the children were asked, firstly, to rate each child on a five point scale for a number of reading readiness evaluations including mental abilities, physical attributes, social and emotional traits and language development; and secondly, to give the fathers' occupations and details of any homes which were other than normal. This information gained from tests, evaluations and teachers' reports enabled the later matching of the i.t.a. and t.o. groups and sub-groups to be made.

At the beginning of the children's third term in school, two of the reading readiness tests, my tests of visual and auditory discrimination, were given to the whole sample. These two tests were given firstly, to measure progress made in these two skills and secondly, to see if the children learning to read with i.t.a. had in any way developed these skills differently from the children learning to read with t.o. This comparison was made because the results of a small experiment carried out by Sister John (1966), suggested that i.t.a. might develop perceptual skills to a greater extent than t.o., and it was decided to test this hypothesis. Also at the same time a first reading achievement test, the Schonell Graded Word Reading Test (1959), was given to all the children. The usual form of the test was given to the t.o. group, but a transliterated version of the same test was given to the i.t.a. group. In this way initial progress in learning to read was assessed.

After a further term, that is at the beginning of the children's fourth term in school, the same reading achievement test was repeated together with a second more comprehensive reading test, the Neale Analysis of Reading Ability (1963); transliterated versions were used with the i.t.a. children.

Reading achievement and progress was again measured at the beginning of the children's sixth term in school. At this stage, it was found that many children had transferred to t.o. and where this had occurred, the children concerned were tested in t.o. Those children still reading with i.t.a. were tested both in i.t.a. and t.o.; in these cases the t.o. test was given to the children first. As being the

more difficult, it was felt that the taking of the t.o. test would not affect the i.t.a. scores to any great extent. A comparison of the i.t.a. and t.o. scores made by the same children, at the same time, on the same test, provided interesting evidence regarding the ease of transfer from i.t.a. to t.o.

The final reading achievement tests of the investigation were given at the beginning of the children's ninth term in school, when some of the children had moved to Junior Schools or Junior Departments, and all but four had transferred to t.o. reading. The same two reading achievement tests were given, but this time only the t.o. versions were used.

Analysis of the Data

In order to compare the reading readiness requirements of children learning to read with i.t.a. and t.o., two groups of children were matched for age, sex, reading readiness skills of visual and auditory discrimination, intelligence, vocabulary and social class. The two matched groups of i.t.a. and t.o. children were then compared in three main ways. Firstly, the mean reading achievement scores of the i.t.a. and t.o. groups were compared throughout this experiment. Table 1 illustrates this approach.

Table 1,

showing a comparison between the mean scores of the i.t.a. and t.o. groups on the Schonell Graded Word Reading Test given for the first time (given in i.t.a. to the i.t.a. children ; given in t.o. to the t.o. children).

GROUP	NO.	MEAN SCORE	S.D.	DIFF. IN MEANS	S.E. of DIFF.	C.R.	STATIS-SIGNIFI.
i.t.a.	119	6.8	9.55				
				3.25	.94	3.46	.1%
t.o.	119	3.55	3.6				level

This table is just to illustrate my first approach which was to compare the mean scores of the i.t.a. and t.o. groups on the Reading Achievement Tests given from time to time throughout the three years. Column 1 indicates the two groups; column 2 the number in each group (119) and column 3 - the important column - shows the mean reading achievement score of each group on the Schonell Test given at the end of the first year in school. Column 5 shows the difference in the mean score of 3.25 in favour of i.t.a. The other figures need not delay us, as I am only trying to illustrate my approaches.

Secondly, five levels of performance achieved by sub-groups of i.t.a. and t.o. children on the various reading measures were taken, and for each level the mean scores attained by the sub-groups of i.t.a. and t.o. children were calculated and compared. Table 2 illustrates this approach.

Table 2,

showing a comparison of the mean scores attained on the Schonell Graded Word Test, by sub-groups of i.t.a. and t.o. children who attained similar levels of performance on the writer's Visual Discrimination Test.

Visual Discrimination - Thackray. Schonell Graded Word Reading - first time.

Range of scores	Group	No.	Mean score	S.D.	Diff. in means	S.E. of diff.	C.R.	Statis-signif.
28-34	i.t.a.	8	24.00	15.81	19.75	3.61	5.47	.1% level
	t.o.	24	4.25	3.74				
21-27	i.t.a.	53	7.92	9.27	4.04	1.58	2.56	5% level
	t.o.	33	3.88	5.39				
14-20	i.t.a.	26	4.96	6.40	2.66	1.37	1.94	N.S.
	t.o.	27	2.30	2.83				

7-13	i.t.a.	23	1.87	2.50	.58	.63	.92	N.S.
	t.o.	28	1.29	1.90				
0-6	i.t.a.	9	1.33	.95	1.04	.41	2.54	5%
	t.o.	7	.29	.46				level

This table illustrates my second approach which was to compare the mean scores attained on the Reading Achievement Tests by sub-groups of i.t.a. and t.o. children who attained similar levels of performance on the measures of reading readiness skills given soon after the children entered school.

In this particular table, column 1 shows the range of scores possible on my Visual Discrimination Test, divided into 5 levels of performance, 0-6, 7-13, 14-20, 21-27, and 28-34. Column 4 shows the mean reading achievement scores of the i.t.a. and t.o. children who attained similar levels of performance on Visual Discrimination. Column 6 shows the differences in the mean scores of the i.t.a. and t.o. sub-groups and a clear pattern can be seen - the mean scores of the i.t.a. groups are consistently higher than the mean scores of the t.o. groups although they had the same level of performance on the Visual Discrimination Test given initially. From such an approach it is possible to see that i.t.a. children with a lower level of performance in Visual Discrimination than t.o. children could reach the same reading achievement level in the same time. For example with the range of scores 28-34, the t.o. reading score was 4.25 (column 4). If we enter the range of scores 14-20 we see the i.t.a. children's mean reading score was similar (4.96), but this with a lower level of performance in Visual Discrimination. I hope this indicates the way in which I obtained my results.

Thirdly, a comparison was made between the mean scores attained on the reading achievement measures by sub-groups of i.t.a. and t.o. children, with similar mental ages. Table 3 illustrates this approach.

Table 3,

showing a comparison between the mean scores attained on the Schonell Graded Word Reading Test, given the first time, by sub-groups of i.t.a. and t.o. children with similar mental ages.

<i>Mental ages</i> <i>(years, months)</i>	<i>below</i>	<i>3-6</i>	<i>4-0</i>	<i>4-6</i>	<i>5-0</i>	<i>5-6</i>	<i>6-0</i>	<i>6-6</i>
	<i>3-6</i>	<i>3-11</i>	<i>4-5</i>	<i>4-11</i>	<i>5-5</i>	<i>5-11</i>	<i>6-5</i>	<i>6-11</i>
No. of i.t.a. chn. in each mental age grp	2	5	15	23	36	30	7	1
No. of t.o. children in each mental age group	4	7	14	20	25	27	20	12
Mean score of i.t.a. children on Schonell	.5	2.0	3.13	3.69	6.69	10.93	11.71	20
Mean score of t.o. children on Schonell	0	1.71	1.8	1.65	2.24	3.0	5.22	12

This table illustrates my third approach which was to compare the mean scores attained on the reading achievement tests by sub-groups of i.t.a. and t.o. children with similar mental ages.

Across the top of the table you see eight mental age ranges from below 3 years, 6 months to 6 years, 11 months.

If you look at the column headed 4 years, 6 months to 4 years, 11 months, you see 23 i.t.a. children fell into this mental age range, and 20 t.o. children fell into this range. The mean score of the i.t.a. children in the group was 3.69 and the mean score of the t.o. group was 1.65. This is a common pattern indicating that with similar mental age levels i.t.a. children score consistently higher than the t.o. children, and it follows that with lower mental age levels, i.t.a. children can score the same as the t.o. children.

Main Findings

1. In my sample, i.t.a. had no more favourable effects on the growth of perceptual discrimination skills than had t.o. so Sister John's earlier findings were not borne out.

2. Regarding the first statistical approach in which mean reading scores of the matched groups were compared throughout the experiment, the following results were established:

i) When the i.t.a. group was tested in i.t.a., there were significant differences between the mean scores of the i.t.a. and t.o. groups, in favour of i.t.a. As the two groups were well matched, the children in my sample learned to read more easily and made better progress with i.t.a. than with t.o. Conversely, the traditional alphabet and spelling of English used with an eclectic approach was a more difficult medium for the teaching of reading than i.t.a.

ii) When the two groups were tested in t.o. at the end of their second and third years in school, there were no significant differences between the mean scores of the i.t.a. and t.o. groups. When i.t.a. children read in the relatively more difficult medium of t.o., the average score was lowered and the i.t.a. group lost its early lead.

iii) At the end of the second year, a comparison was made between the mean scores attained on the i.t.a. and t.o. versions of the two reading achievement tests by 50 i.t.a. children who had not transferred to t.o. There was a highly significant difference between the mean scores on the i.t.a. and t.o. versions of both tests, indicating that for these 50 children at this stage, the t.o. version of the test was much more difficult for them to read than the i.t.a. version and again shows that in my experiment there was a setback in reading progress during the transfer stage.

3. Regarding the second statistical approach which compared the mean reading achievement scores of sub-groups of i.t.a. and t.o. children who attained similar levels of performance on the reading readiness measures given initially, the following results were established:

i) When the i.t.a. group was tested in i.t.a., the results show that for nearly all levels of performance on the reading readiness tests, the mean reading achievement scores attained by the i.t.a. sub-groups are greater than the mean reading achievement scores attained by the t.o. sub-groups and in many cases significantly greater. This pattern of results indicates that i.t.a. sub-groups with lower levels of reading readiness than t.o. sub-groups can reach similar levels of reading achievement to those t.o. sub-groups, whilst reading in i.t.a. If i.t.a. children can learn to read with lower levels of reading readiness than t.o. children, then i.t.a. children, on average, will be ready to read earlier than t.o. children.

ii) When the two groups were tested in t.o. at the end of their second and third years in school, and a comparison *again* made of the mean reading scores of i.t.a. and t.o. sub-groups who attained similar levels of performance on the reading readiness measures given initially, a new pattern of results emerged. The mean reading scores of the sub-groups were similar, again providing evidence of the setback in the progress of i.t.a. children at the transition stage.

4. Regarding the third statistical approach which compared the mean reading achievement scores of sub-groups of i.t.a. and t.o. children with similar mental ages initially, the following results were established:

i) When the i.t.a. group was tested in i.t.a., the figures indicated that i.t.a. children were able to learn to read as well as t.o. children with an average mental age of six months to a year less than the average mental age of the t.o. children.

ii) When both groups were tested in t.o., the results indicated that the i.t.a. and t.o. sub-groups with similar levels of mental ability initially had similar levels of reading ability, again providing evidence of the setback in the reading progress of i.t.a. children during the transition stage.

I feel that my research showed experimentally that:

- a.) i.t.a. is simpler than t.o. in its visual and auditory structure;
- b.) i.t.a. children are ready to read earlier and make quicker progress than t.o. children taught with an eclectic approach;
- c.) there is a setback for the i.t.a. children during the transfer stage which resulted in similar mean reading scores for the i.t.a. and t.o. groups at the end of three years in school.

Conclusion

If firstly, children learning to read with i.t.a. were taught with confidence at a rather earlier age than is normal for the teaching of reading with t.o., and secondly, the transfer to t.o. could be made easier in some way, then i.t.a. children could keep their lead and reading standards could be raised.

In the discussion of i.t.a. in the Bullock Report (1975), the Committee made the following two comments, which are relevant to this paper:

" . . . we have already noted the bewildering complexities of the English spelling system, and it is self-evident that a simplification of the relationship between sound and spellings must make it easier for a child to make progress in the early stages. If there are fewer items to be learned this alone must reduce the time required, and if there are fewer ambiguities there will be less confusion. All this is amply confirmed by research."

"As a Committee we are not unanimous on the value of i.t.a. but we believe that as there is no evidence of adverse side effects at a later stage, schools which choose to adopt it should be given every support. We also feel that teachers should examine the question of i.t.a. on its merits."

The Bullock Committee is encouraging teachers to look again objectively at i.t.a., and I would endorse this view.

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[Spelling Reform Anthology §9.8 p149 in the printed version]
[Spelling Progress Bulletin Fall 1974 p1 in the printed version]

8. Book Review

Noory, Samuel. *Dictionary of pronunciation*, (2nd edition), Mar. 1974. New York: A.S. Barnes & Co, \$8.95. pp 525+ xliii.

This dictionary is unusual - it is not intended as competition for the conventional dictionaries. It contains very few meanings - only when needed to clarify homonyms. However, each word is identified as to its part of speech.

Two modern developments influenced the author to make this dictionary. One is the modern computer which increasingly requires phonetic coding for its operation. The other is the application of phonetic principles in the teaching of reading and spelling in the schools.

The book starts with a 19 page chapter on "Why Johnny can't read" - an excellent thesis on the subject but differing from the sensational book by Rudolf Flesch. This one immediately acknowledges the lack of pronunciation giving English spelling as the culprit. Before one can learn to read a word, one must learn how to pronounce that word. The spoken language is what we learn first (or should). But all too often (!) the spelling of a word indicates a wrong or obsolete pronunciation. Hence the value and usefulness of this dictionary.

This chapter is followed by a 17 page discussion of the phonetic alphabet used as the pronunciation key. This consists of 40 symbols, 9 of which are digraphs, and 3 vowel letters with a macron for the long vowel (digraphs for the other long vowels), and a (') for the elusive sound (the glottal stop).

This comprehensive book dispels the worry that a phonetic transcription of English is not possible because of the many differing dialects. To be sure, when there are noticeable variants in pronunciation, the other dialectal pronunciations being listed first.

Of the 58,000 entries, 45,000 are the phonetic spellings of common terms, and 1,300 are names of persons, places, names from the Bible, literature and legend, covering all but some rare words and names in English. Even some of these are included when interesting because of spelling and pronunciation.

[Spelling Reform Anthology §9.9pp149-151 in the printed version]
[Spelling Progress Bulletin October 1961 pp12,13 in the printed version]

9. Phonetics and Spelling, by Ernest Horn, Ph.D.

Condensed from an article in the *Elementary School Journal*, May 1957, published by the Univ. of Chicago Press.

English spelling is tough. Efforts to alleviate its difficulties have been the serious concern of many scholars for more than 400 years. Any help, even tho small, should therefore be welcomed by everyone. It is essential, however, that any proposed plan be soundly grounded in all essential related evidence if it is to be more than a passing fad.

There is considerable evidence to suggest that well-planned instruction in sound-to-letter and letter-to-sound associations to appropriate relation to other learning procedures may be of benefit both in spelling and in reading. This is all the more reason for making sure that any plan for such instruction should be critically formulated on the basis of adequate evidence on all the important factors related to such instruction.

There are at least six types of evidence which should be considered in appraising the potential contributions of phonics instruction to spelling:

- (1) evidence on the uniformity or lack of uniformity in pronunciations.
- (2) evidence on the ways in which the various sounds are spelled,
- (3) data from investigations of children's attempts to spell the sounds in common words,
- (4) evidence on the influence of word patterns and of the ways in which sounds are spelled in different word relationships,
- (5) evidence on the operation of the laws of association and of negative and positive transfer,
- (6) findings from the research on teaching generalizations, such as spelling rules. This article is chiefly concerned, however, with the first three types of evidence.

The influence of pronunciation on spelling

A very considerable portion of words have more than one accepted pronunciation and many have three or more. An inspection of several thousand words sampled systematically from Kenyon and Knott's *A Pronouncing Dictionary of American English* [4] indicates that at least a third of the words in the dictionary have more than one accented pronunciation. If the spelling of a word is phonetically regular in one dialect, it is not likely to be in another.

Regional differences in both formal and informal speech are readily recognized. The three chief speech regions in the United States are Eastern, Southern, and General American. (General American refers to the rest of the country outside of the East and South). Variations in pronunciation among these regions are recorded in *A Pronouncing Dictionary of American English*. Further differences are to be found in the speech of Northern England, Southern England, and Scotland. Yet, with few exceptions, words are spelled the same in all these regions in the United States and Great Britain. (*Ed. note: But so are words spelled the same thru the 8 million miles of the U.S.S.R. where surely regional differences are greater than in the U.S.A. Besides a purposive use of T.V. and radio could standardize pronunciation.*)

An important distinction in considering the relation of phonetics and spelling is that between platform speech and public reading and the speech that has been called the familiar, cultivated colloquial. Phoneticians warn against the mistaken idea that colloquial is synonymous with bad. On

the contrary, this style, which has been termed the speech of well-bred ease, is considered by Kenyon and Knott to be the most important of all styles. (3-12-17, 4: xv-xvi) It is certainly the most important in its effect on spelling since it is the language that the pupil commonly hears and speaks.

The consistency with which sounds are spelled

Many modern spelling books recommend that, in learning to spell a word, the pupil should pronounce it carefully), and should notice closely how each syllable or part is spelled. But observing how each sound in a word is spelled *as a method of learning a word* is a different thing from attempting to spell it by sounding, by analogy, or by spelling each sound in the way it is most commonly spelled, all of which involve the application of some sort of generalization.

The usefulness of teaching any generalization in spelling whether phonetic or orthographic, is limited by the number of words covered by the generalization and the number of exceptions to it. It is important, therefore, to have adequate information on these two points. In order to secure such information for the present study, it was necessary to select, first, the list of words to be analyzed, and secondly the dictionaries which were to be the source of authority on pronunciation. For the first, the ten thousand words in Ernest Horn's *A Basic Writing Vocabulary* {2} were chosen because the analysis of this large number of words, while laborious, was practicable and because these words, with their repetitions, make up more than 99% of the running words written by adults.

A succession of dictionaries were used as sources of pronunciation, according to their availability and suitability to the problem at hand. Among them were the *Thorndike Century Junior Dictionary*, the *Thorndike-Barnart*, *Webster's Elementary*, and *Kenyon and Knott*.

The data on the spelling of some of the sounds as used may vary from what would be found if one dictionary were used alone, but certainly not to an extent that would greatly change the practical significance of the evidence. The frequency of certain sounds would vary considerably if all accepted pronunciations were used.

In tabulating the various spellings of any sound, each occurrence of the sound was counted. Since some words contain the same sound two or more times, the number of words containing the sound is less.

Making such counts is not a purely objective, routine task. Many decisions must be made as matters of judgement, especially in the case of *words containing silent letters*. Some of these letters were formerly pronounced, as the *k* in *knife*, the *g* in *gnaw* and the *gh* in *light*. Others are capricious accidents or attempts at analogy with other words of a different origin. In some instances, as when final silent *e* makes the preceding vowel long or *g* and *c* soft, the problem is relatively simple. In words in which the silent *e* is needed to show a long vowel or also a soft *g* or *c*, the silent *e* was counted as helping to spell both the consonant and vowel sounds. In the word *range*, if silent *e* were omitted, the word would be *rang*. In many words, however, silent letters have no function now, but since all letters in a word must be written, each silent letter was assigned to some sound. In certain types of words, the assignment of these letters was somewhat arbitrary. It could hardly be otherwise, since in many words the silent letters are not only phonetically superfluous but even, as in the case of silent *e* in the word *definite*, actually misleading. The policy in all cases was to consider the problems pupils face in spelling the sounds.

Findings of the study

The two vowel sounds most frequently heard in the language are the short *i* sound, as in *hit* and the obscure vowel sound (*schwa*) as in the second syllable of *separate*. They are troublesome to tabulate because there are frequently alternate pronunciations in unaccented syllables of the same letter or letter combinations.

The short *i* sound (ɪ) is spelled in at least 15 ways in common words and only in a little more than half the time with the letter *i* alone. Examples are (in one accepted pronunciation) *i* (*bit*), *e*, *y* (*pretty*), *ie* (*mischief*), *ui* (*build*), *ey* (*money*), *a* (*character*), *ay* (*Monday*), *u* (*busy*), *ee* (*been*), *ai* (*portrait*), *ei* (*foreign*), *ia* (*marriage*), *o* (*women*), and *ea* (*forehead*). There are a half dozen other spellings in less common words.

The short *i* is also pronounced in many words in which the vowel sounds, from their word patterns (vowel consonant and silent *e* or two adjacent vowels), might be expected to be long. Examples are: *furnace*, *mountain*, *favorite*, *minute* (time), and *coffee*.

The *schwa* sound is found in at least one accepted pronunciation in more than half of the multisyllabic words in the ten thousand commonest words. It is a very frequent sound in the speech of people in the East and South who do not pronounce their *r*'s unless the *r* is followed by a vowel sound. It is spelled with almost any vowel or vowel digraph, hence in many different ways. The multiplicity of possible choices makes it difficult to spell.

Unaccented syllables are a special problem. They are difficult to spell for two reasons: (1) they are less distinctly pronounced, the vowel sounds being weakened, and (2) in a great many words, as pointed out above, the obscure vowel sound, *schwa*, or the short *i* is substituted for the vowel sounds which might be inferred from the printed letters.

Three more difficulties should be noted: silent letters, double letters, and the fact that syllabication in the pronunciations does not always conform to the conventional syllabication in the dictionary entries. If one includes letters not pronounced in digraphs, as in *please* or *boat*, and double letters where only one is pronounced, all but four letters of the alphabet (*j*, *q*, *v*, and *x*) are silent in some words. (Ed. note. How about *hajji*, *kopje*, *sejn*, *lacquer*, *licquor*, *picquant*, *racquet*, *navvy*, *beaux*, *billet-doux*, *faux-pas*, *roux*?). A systematic sampling of the words in the *Thorndike-Barnhart Junior College Dictionary* indicates that probably at least half of the words in that dictionary contain silent letters. It is not likely that a pupil, by applying phonic principles or by logical reasoning by analogy, can decide when to insert a letter which neither spells or helps to spell any sound.

More than a sixth of the ten thousand words most frequently written contain double letters. There is, of course, a rule for doubling or not doubling when adding suffixes but the problem of double letters is not limited to adding suffixes. Double letters are more frequent in the body of words.

Of 28 common sounds tabulated, the commonest spellings for them were 119. Add to these the many spellings already mentioned of the *schwa* and short *i*, and it would be strange indeed if pupils did not spell unlearned words in a variety of ways. They do, as every teacher knows. In an early experiment by the writer, 195 pupils in Grades I and II, all of whom had been taught phonics as one approach to reading, spelled *circus* in 148 ways. *Tease* was spelled in 44 ways. The "best" spellings were *tes*, *teas*, *tees*, and *teez*. Subsequent investigations have shown a wide variety of misspellings even for more mature pupils who have had much greater experience in both writing and reading. Masters [5], for example, in an analysis of the attempts of 200 students in each of Grades VIII, XII and XVI to spell 268 difficult words selected from 5000 words of high frequency, found *miscellaneous* to be spelled in 153 ways - 113 ways in Grade VIII, 40 in Grade XII, and 22

by college students. An inspection of the attempts to spell these 268 words shows that the majority of the most common misspellings were analogically reasonable in the sense that the individual sounds were spelled in ways that represent correct spelling of the sounds in other words. Examples are: adequate-*adequit*, amiable-*aimable*, deny-*denigh*, scandal-*scandale*. Additional examples, all reported as common misspellings by elementary school children, are: aid-*ade*, asleep-*asleap*, before-*befour*, boat-*bote*, busy-*bizzy*, crumb-*crum*, force-*forse*, honor-*honer*, mystery-*mistery*, tongue-*tung*. Pupils need no encouragement to misspell by utilizing analogic spellings. It seems to come naturally to them.

Attempts to account for a pupil's choice of a spelling of an unlearned word at a given time are largely conjectures. Why did one pupil, in attempting to spell *awful*, write *offul*, while others wrote *awfull*, *offel*, or *offle*? Common sense should tell us that having so many variations in analogical spellings is the cause of different misspellings. Evidence from research confirms this. Analogy is unreliable because our spelling is unreliable. [1]

The preceding discussions underestimate, rather than exaggerate, the complications which confront children in attempting to spell. How much more complicated the factors are, can readily be seen by reading standard works on phonetics and philology, and treatments of transfer and the laws of association in the psychological literature. It is not the purpose of this article to disparage the use of phonetics in teaching either reading or spelling. Its purpose is rather to call attention to types of evidence which should be considered in designing any plan to emphasizing sound-to-letter relationships.

It seems important that children should learn the ways [2] not *the way*, in which each sound is spelled. This should at least eliminate many misspellings in which the sounds are spelled in ways in which they are never correctly spelled. Children should learn how to spell the principal prefixes and suffixes and should know how to add these to base words. They should also learn such orthographic aids as apply to large numbers of words with few exceptions.

What results should be expected from emphasizing as generalizations or principles the commonest spelling of that which have a large number of exceptions? Would pupils tend to spell these sounds [3] in all words by the commonest spellings? If they should, as research has shown, they would misspell more words than they now do. Would it usefully sensitize children to deviant spellings? Would it give them a misplaced confidence in utilizing these commonest spellings, which would lead to disillusionment and therefore to a decrease in interest in spelling? These possibilities deserve to be explored more adequately.

There are some characteristics of English spelling, however, that exhibit considerable consistence. Most consonant sounds, whether single sounds, as the *b* in *bed*, or initial blends, as the *bl* in *black*, are regularly spelled at the beginning of words. The most important exceptions are the sounds of *f* as in *fun*, or *physics*, *k* as in *cup* and *keep*, *s* as in *city* and *sit*, and *j* as in *jersey* and *germ*.

Some consonant sounds, however, that are spelled regularly at the beginning of words, are spelled in many other ways in other word positions. For example, the sound of *sh* is regularly spelled with *sh* at the beginning [4] and end of words, but in other word positions it is spelled more often in other ways than with *sh*. The sound of *k* at the beginning of a word or a syllable is, with few exceptions, spelled with *c* before *a*, *o*, *u*, *r*, and *l*, but with *k* before *e*, *i*, and *y*. It is spelled in many other ways at the end of words and syllables. The letters *l* and *f* are, with very few exceptions, doubled at the end of monosyllables when preceded [5] by a single short vowel. Other consistencies could be cited for the spelling of sounds in certain word relationships. Whether these could be advantageously taught to beginners is a moot question. [6]

Some help, moreover, may be obtained from the knowledge of word patterns, at least in preventing obvious blunders. For example, it is not too much to expect that children should know not to spell *mad*, m-a-d-e, or *made* m-a-d, but note how the sound of *ade* is spelled in *aid*, *weigh*, *suede*, *stayed*, and *obeyed*. Actually, writing find silent e to indicate a long vowel sound is only one of four very common ways of showing vowel length, and long vowel sounds are more often spelled in other ways than this. Examples of other ways are: open syllables, *fetal*; double letters, *deep*, and digraphs, *boat*. There are many words however, in which these four devices do not spell long vowel sounds, such as: *definite*, *machine*, *been* and *head*.

When the evidence, on both the consistence 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, and have been unaware of such orthographic and phonetic irregularities as exist in the English 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.*

Editor's note: Let the back to phonics advocates take this last paragraph to heart.

This points out the dire need for a reform of our spelling. Phonics - no matter how well taught or mixed with other methods, is not a satisfactory answer to solve the basic problems of confusing irregularities, which is the chief cause of difficulties in teaching as well as learning the numerous, unnecessary anomalies of English spelling. Haven't we something better to do with our students' time than to cause them to waste two or three years needlessly *trying* to commit to memory the thousands of irregularities I say *trying* because NO ONE ever gets so good that he can write a long composition without referring to the dictionary. What possible good purpose or advantage can compensate the pupils for those two or three years wasted?

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[1] Editor's note: Also spelling rules are unreliable.

[2] Standardization is obviously lacking. (Why not use dictionary respellings, which are standardized?)

[3] Setting of a standardized or preferred pronunciation would be a preliminary requirement.

[4] How about *sure*, *sugar*?

[5] Compare: *precede*, *proceed*, *reseed*, *succeed*. So how is a learner going to remember which letter to use?

[6] All of the possible rules for spelling have been tried, with not much success, because most have exceptions or are too complicated to be used by children.