Spelling Progress Bulletin Spring 1974

Dedicated to finding the causes of difficulties in learning reading and spelling.

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1. Announcement

INTERNATIONAL READING ASSOCIATION – PHONEMIC SPELLING COUNCIL CONVENTION INSTITUTE
May 2, 1974. New Orleans, Louisiana

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General Theme:
  Reading and the Writing System

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2. Phonics: Methods and Orthography, by Emmett Albert Betts*

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Part I: Basic Reader Series

This report is based on a tedious analysis of all of the vocabulary in the 1963 edition of a widely used series of readers: preprimers, primer, first reader. It can be used to set up guidelines to a word perception program in the primary grades because the vocabulary was selected primarily on one basis: frequency of age of words in speech, writing, and basis readers.

First, I want to point out that the three basic spelling patterns, designated herein, "discovered" by the linguists were long ago set up in phonics as three "vowel" rules: e.g., Pattern 1, *at-cat, it-big, bed-get, box-got, but-cup;* Pattern 2, *ate-like-nose;* Pattern 3, *train, street, eat, coat.* In fact, these patterns were the basis for all of the editions of a series of basic readers – altho this concept was not developed fully.

Second, all of us must be aware of a *fact:* The three *major* patterns are of little predictive value in word perception for a number of reasons:

There is no generalization that child or teacher can make about Spelling Pattern 1. For example, what can be generalized about the sounds /a/, /i/, /e/, /ə/ /ä/? Of course, a linguist can generalize in terms of length of sound, but even the linguist will be the first to admit the holes in that kind of generalization. When is a consonant or vowel long or short? It depends upon the adjacent sounds, including intonation.

2. The subpatterns of each pattern may have meaning for mature readers. Each subpattern of Pattern 1 permits a generalization. As we will see later, this is not quite true of Pattern 3. However, it does have some validity for Pattern 2.

3. The variant patterns (e.g, *he, she, we, me, be)* often occur more frequently than some of the subpatterns of the three main patterns. This point is crucial in developing a reading program and evidence will be presented herein on this point. In short, we can overemphasize the so-called three major patterns.

4. As a variant pattern, the vowel plus *r* series embraces a highly significant number of words, as in *four* and *ear.* Here again, of course, we have about 9 basic subpatterns and only one or two of significant frequency.

5. A great many words are non-patterned for still mor reasons. The words *a, an, and, the, to, for, with,* and the like, represent shifting phonemes depending on whether we say them (a) in isolation or (b) in relation to varying phonological contexts.

Then, too, we have homographs such as *wind* and *live* which may fit usually in one of two patterns. Furthermore, there is a host of different types of nonpatterning words such as *of, one, come-some, there-where-were, what-want, laugh, who,* etc.

Fortunately, a great number of these non-patterning words are not stressed in phrases: They are often structure (i.e., function, or syntactic) words.

This latter class of words poses special problems of perceptual meaning not posed by the four major classes of content words. That is, they get their meaning from their relationships in word groups.

6. The real payoff of a word pattern is its consistency when embodied in a multisyllable word. Evidence on this point is presented – even tho the number of multisyllable words is relatively small. For example, the first subpattern of Pattern 1 is operative in the stressed syllables of the words *after, apples, candy, happy,* etc. It still holds in the stressed second syllable of such words as *began.* A subpattern of basic Pattern 2 holds in the stressed second syllable of *surprise* and *parade.*
But here again, we have a great many unpatterned multisyllable words such as *color, father, many, pretty, other, woman,* etc.

Part I of this report deals with an analysis of the spelling patterns of the 307 words listed in the cumulativ vocabulary through the 1963 edition of a widely used first reader. In short, it includes all the words used in the preprimer, primer, and the first reader – with the exception of proper names and the word *Halloween.* These data are presented in terms of rounded percentages.

1. About 85% of the words were monosyllabic; 15% disyllabic. The small number of dissylables, of course, doesn't put the pupil very high on the bat handle so far as reliability is concerned--but the data are indicative of applicability. There were about as many disyllables in the preprimer and primer as in the first reader--the first reader representing a total of 153 "new" words, or about half of the total vocabulary through that level.

2. About 35% of the 307 words were monosyllables that fitted Pattern l *(sat, set, sit, not, but),* Pattern 2 *(make, like, home),* and Pattern 3 *(train, eat, street, coat).* Separate data are presented on word patterns in disyllables. In general, the three main patterns yielded the following percentage of words:

Pattern 1	25%
Pattern 2	6%
Pattern 3	4%
	35%

It is crucial to note (1) that these three patterns account for about a little more than 1/3 of the total vocabulary and (2) that Pattern 1 far outranks either Pattern 2 or Pattern 3 – or both Patterns 2 and 3.

This also means that in terms of word perception there is a need to account for other patterns which can be called variant, or minor, patterns. Data on these variant patterns will be presented below.

3. The subpatterns of Pattern 1 reveal both frequency of occurences and cruciality. Here are the percentages for each of these subpatterns:

/a/ as in *at*	34%
/i/ as in it	25%
/e/ as in *set*	19%
/ə/ as in *but*	13%
/ä/ as in *not*	9%
	100%

It will be noted that these subpatterns hold up fairly well and that the /ä/ subpattern finding explains our difficulty in identifying enough common words for use in beginning reading material.

(Note: The respellings to show pronunciations are based on G. & C. Merriam's *Webster's New Elementary Dictionary,* 1965.)

Here again, I want to point out that this total pattern cannot be generalized; instead, each subpattern permits a generalization on the part of the pupil.

4. The subpatterns of Pattern 2 – the vowel digraph plus a consonant as in *make, like* and *nose* – account for only 6% of the total words (corpus) distributed as follows:

/ā/ as in *ate*	47%
/ī/ as in *like*	41%
/ō/ as in *nose*	12%
	100%

First, the above percentages distort their relative importance. For example, only two words – *nose* and *home* – fit the /ō/ pattern. Second, the words *come* and *some,* which do not fit the /ō/ pattern, cancel the value of teaching the /ō/ pattern – unless we can find some other reason for it.

In the Elsie Black, (*A Study of the Consonant Situations in a Primary Reading Vocabulary*), and Ruth Oaks, (A *Study of the Vowel Situation in a Primary Vocabulary*), theses which the writer directed several years ago, the application/exception ratio was used. From these studies we learned that Pattern 2 only holds in 53% of the situations; that is, there are a great number of exceptions. This is quite in contrast to Pattern 1, which operates in 74% of the situations. It compares with Pattern 3 which operates in only 50% of the situations. In other words, a child has only a 50-50 chance of applying Pattern 3.

For subpattern /ā/ plus *e* as in *make* and subpattern /ī/ plus *e* as in *like,* the pupil has excellent chance of applying his skills to these split digraphs with some assurance of success.

5. For subpattern No. 3 the vocabulary yielded only: /ā/ as in *train* and /ē/ as in *street* and /ē/ as in *eat* and /ō/ as in coat – a total of 13 words.

Again, the *ea* spelling appeared only in two words: *eat* and *each*; the *oa* spelling in two words, *coat* and *road*. From these data it would appear that we should be concerned with the *ai* and *ee* spellings.

As noted above, this pattern yields relatively few words.

6. Variant, or minor, patterns yielded 28% of the 307 words in the cumulative vocabulary. Without giving the percentages, here are listed the significant patterns in the order of their importance:
> park far yard farm arm car barn
> day play may hay way stay
> he she we me be
> look good book took brook
> old hold cold gold
> show know snow grow
> down brown clown town
> go no so
> my fly by

It will be noted that five of the above patterns, read from left to right, represent open rather than closed syllables. Furthermore, the first three significantly outrank any of the subpatterns of Pattern 3.

It may be surprising that more of the following variant patterns were not identified:
> saw – draw, see – three, call – fall, walk- talk toy – boy, could-should, out

It is well known that a great many words contain the vowel plus *r* pattern. Here again, there were very few of the following subpatterns:
> girl bird first
> her work

(At higher levels this becomes a very important pattern because *or* following *w* has the sound of /ər/)
> store bear fair horse ear

Lest there be over concern with the vowel situations (the nuclei of syllables), Elsie Black identified a number of consistent consonant phonogram patterns. (Black, Elsie. "A Study of the Consonant Situations in a Primary Reading Vocabulary," *Education,* LXXII, (May, 1952), p. 618623.) Unfortunately, there are few examples of each pattern, such as consonant phonogram patterns:

spelling	sound	example
kn	/n/	know
ght	/t/	knight
lk	/k/	talk, walk
ck	/k/	back, crack
tch	/ch/	catch

7. Non-pattern words were discussed incidentally above. There are shifting phonemes in different phonological environment as in *the,* the homograph *wind,* and a host of unusual spellings as in *one,*

their-there, want, put, doll, buy, fence, guess, etc. This group comprises a little over 13% of the 307 words in the total vocabulary.

8. Only three compound words were identified: *into, airplane, something.* It will be noted that each word contains at least one syllable fitting basic Pattern 1 and 2.

Now, the payoff of a word perception program is the extent to which parts can be identified as a stressed syllable embedded in a multi-syllable word. All except the monosyllables in this study were disyllables.

Part II: Dale List – Spelling Patterns

One of the commonest spelling patterns is the (consonant) vowel-consonant group of spelling patterns as in *at-cat, bed-get, it-big, box-got,* and *but-cup.* Of the 584 monosyllables in Edgar Dale's "A Comparison of Two Word Lists," 28.4% fitted this (C)-V-C category – Spelling Pattern 1. In a study of the preprimer, primer and firstreader vocabulary, 25% fitted this category.

Within this group of spelling patterns, the number of monosyllables varied widely for each pattern:

Pattern 1 (C)-V-C	Dale No.	%
at-cat	43	26
it-big	51	31
bed-get	42	26
box-got	13	8
but-cup	15	9
	164	100

Sixty-five, or 11%, of the 584 monosyllables (Dale) were in Spelling Pattern 2:

Pattern 2 (C)-V-C plus e	Dale No.	%
/ā/ brave-cake	27	42.0
/ē/ these	1	1.5
/ī/ drive-like	23	36.0
/ō/ bone-rose	12	19.0
/yü/ use	1	1.5
	64	100.00

Fifty, or 8%, of the 584 monosyllables (Dale) were in Spelling Pattern 3:

Pattern 3 (C)-V-V-C	Dale No.	%
/ā/ ai grain-mail	11	22
/ē/ ea beat-real	15	30
/ē/ ee deep-need	18	36
/ō/ oa boat-road	6	12
	50	100

In brief, 282, or 47%, of the Dale's 769 words had the necessary (C)-V-C, (C)-V-C plus *e,* (C)-V-V-C cues for Patterns 1, 2, 3 (the three commonly used vowel rules). A comparison of the basic reader and Dale monosyllables yields:

Pattern	Basic Readers	Dale
1	25%	28%
2	6	11

$$\begin{array}{ccc} 3 & \underline{4} & \underline{8} \\ & 31\% & 47\% \end{array}$$

Fifty-three % of the Dale monosyllables might be considered minor patterns:
1. all-wall
2. day-stay, be-he, bee-tree, die-tie, go-so, by-cry
3. blow-grow, cow-brown
4. cool-food
5. book-cook
6. cloud-south
7. arm-car
8. bird-first, burn-hurt, earth-learn, world-work /ər/, clear-hear, fair, pair, fire-tire, born-corn.

Part III: Ruth Oaks – Primary Reading Vocabulary

In 1950, Ruth Oaks reported "A Study of the Vowel Situations in a Primary Reading Vocabulary" in which she identified eight vowel rules, including the three spelling patterns (vowel rules) reported herein. For this purpose, she used the Betts Reading Vocabulary Studies – based on a verified count of all the running words in 14 series of extant basic readers and compiled in terms of spread (number of books) and frequency (number of times used in each book) for both the base form (e.g. *build)* and variants (e.g. *building, buildings, builds*).

Oaks identified all of the application /exception ratios (e.g. *big* versus *climb* for spelling Pattern 1) for each of the vowel rules. Her data are presented here, in terms of application:

APPLICATIONS

Rule	Primer	First	Second	Third
Pattern 1	74%	69%	66%	70%
Pattern 2	53%	56%	67%	71%
Pattern 3	50%	49%	47%	51%

Oaks' data tend to confirm the rank order of Patterns 1, 2, and 3, especially at the primer and first-reader levels. The application /exception ratios were inflated possibly because both monosyllables and the stressed syllables of multisyllable words were included.

The Oaks' study has these limitations:
1. Webster's New International Dictionary of the English Language, second edition, 1936 (G. & C. Merriam) was used because *Webster's Third New International Dictionary* was not published until 1961. This old dictionary caused some distortion in her data because more than one symbol was used to represent a speech sound.

The first two studies reported above used *Webster's Elementary Dictionary,* 1965, (G. & C. Merriam) as the criterion for pronunciation for two reasons:

First, it is phonemic: e.g. only one symbol is used for the *u* in *use /'yus/, /'yüz/.* Other dictionaries tend to use bar *u* /ū/ for the first sound of *use /'* ūs/, *y* for the first sound of *you*, and /*ü*/ for the *oo* of *moon* when they already have the symbols /yü/.

Second, it is a simplified dictionary for use by elementary school pupils and the vocabularies under consideration are at those levels.

2. Words used in 10 of the 14 basic readings of the *Betts Reading Vocabulary Studies* were analyzed. These selections increased the social utility value but may have eliminated some crucial words.

3. Only the base forms of the words were selected; e.g. *fund* rather than *funds* or *funding.*

4. Abbreviations and contractions were excluded from consideration.

5. A total of 1966 words was selected, distributed as follows:

Reader Level	Number
Primer	112
First Reader	257
Second Reader	592
Third Reader	1005
Total	1966

6. Eight vowel rules, or principles, were identified for study. Three of these are somewhat relevant to the "spelling patterns" of this report:

Pattern 1 "When there is only one vowel in a stressed and that vowel is followed by a consonant, the vowel has its 'short' sound."
Pattern 2. "When a stressed syllable ends in *e,* the first vowel in the syllable has its own 'long' sound and the final *e is* silent.
Pattern 3. "When there are two adjacent vowels in a syllable, the first vowel has its own 'long' sound and the second vowel is silent."

7. Both monosyllable and multisyllable words were included: e.g. *but-butter, fast-faster.*

8. The "principle," or vowel rule, as defined in the Oaks study, included not only Pattern 3 words (e.g., *eat*) but also all digraphs for vowels(e.g. *tr(ee), gr(ow), t(ie), aw(ay), t(oe), sh(oe), b(uy), t(oo), fl(ew), t(ou)ch, bl(ue), d(ea)r, b(ea)r, d(oo)r, l(ea)rn, h(ea)rt.* This expansion of vowel digraphs undoubtedly inflated the applications in the Oaks study.

9. All words – monosyllables and multisyllables – were tabulated. Furthermore, each syllable of multisyllable words was tabulated separately; therefore, the syllables of a word appear in more than one classification (vowel rule).

Applications of Spelling Pattern 1 (incidence)

Example	Reader Level			
	Primer	I	II	III
cat	9	24	47	86
bed	7	22	51	89
fish	13	24	59	95
hop	6	8	23	35
brush	7	11	22	49
	42	89	202	354

In addition, Oaks tabulated *a plus r(r)* (e.g. *arrow*), *e plus r* (e.g. *merry*) in this category which was not done in the first two studies of this report. Furthermore, *o plus r (e.g. forest* and *sorry*) pronunciations have been revised since the 1935 edition of A *Dictionary for Boys and Girls* (G. & C. Merriam & Co.)
Data are not presented here on Spelling Pattern 3 because the Oaks study was organized in terms of 8 vowel principles listed in phonics programs at that time. Hence, her data did not yield direct evidence on this spelling pattern.

Applications of Spelling Pattern 2 (incidence)

	Example	*Reader Level*		
		Primer	*1*	*II*	*III*
bake		2	8	21	32
here		2	4	6	11
like		3	5	24	48
home		2	3	14	30
use		0	0	1	1
total		9	20	66	122
Exceptions		8	16	31	49

Part IV: Elsie Black – Consonant Situations

In 1950, Elsie Benson Black reported on "Consonant Situations in a Primary Reading Vocabulary" – a companion study to the Oaks study on vowels, using the same corpus of words. Her findings included:

1. Single letters (e.g. *t* or *n* in *ten)* accounted for 68% of the consonant situations. Initial consonant letters accounted for 38.7%; final consonant letters, 29.6%.
2. Consonant digraphs accounted for about 10% of the situations, mostly as final consonants.
3. Two- and three-letter combinations represent 15% of the situations.
4. Consonant trigraphs were a mere .6% of the total situation.
5. Almost 7% of consonant situations embraced silent letters. (Of course, all *letters* are silent, in a very real sense.)

Elsie Black's study provides a wealth of information for orthographers to ponder. Like the Oaks study, her data, results, and conclusions probably are unimpeachible, within the limitations of pronunciation criteria and statements of phonic rules available in 1950.

Reading: Initial Learnings

Beginners in reading are confronted with a number of frustrating situations which foil their efforts to see a relationship between speech and writing – i.e., the alphabetic principle.

1. They need to learn what a word is. This is easily taught in a few minutes. Then they need to learn that words are separated by white spaces on the page, because in speech, groups of words (structures) are sequenced patterns of intonation.

2. They need to learn awareness of the sounds they use in speech--the /F / in *he,* /sh/ in *sugar,* and so on. Fortunately, there are "quickie" procedures for teaching pupils to hear the sounds they use automatically as preparation for relating them to spelling.

3. They need to learn the differences between manuscript and/or cursive writing and the printed page. These differences in many instances are significant: e.g., the written *g* in the word *got* and the printed *g.*

4. They need to learn the different lower case and capital forms (graphic shape) of certain letters: e.g., a-A, b-B, e-E, f-F, g-G, h-H, i-I, and so on. Of course, also there is primarily a size difference between the lower case and capital letters: c-C, o-O, x-X, z-Z, and others.

5. They need to learn that ligatured symbols represent two letters, as fi for *fi* in *find,* fl for *fl* in *fluff.*

6. They need to learn that some letters are left-right mirrored patterns (e.g., *b* and *d)* and some are inverted patterns (e.g., *b* and *p* or *q*).

7. They need to learn that the pronunciation of some words may be predicted from spellings: e.g., *at-cap, sit-lip*, etc. Equally important, they need to be prepared to use cues, as in *kind-find, moon-soon.* Then, too, *as* /'az/, *has* /'haz/, *many* /'men-ē/ and other words that give partial cues to

pronunciation. More hazardous is probability learning, as in *moon-took, loud-touch, beat-feed.* But pupil frustration and defeat can be avoided for spellings that do not predict pronunciation, as: *one, you, are, eye, of, once, done, come, know, how.* (See Options)

a. Redundant letters, as b in debt, doubt, dumb; s in island, h in ghost, l in walk, and so on.

b. Ambiguities, as a in about, many, cat, father, tall, sofa, wh in which, who, and many other words.

c. Inadequacies, as *one,* /'wan/, *are* /ər, är/, *once* /'wəns/, etc.

8. They need to learn to interpret contractions which are counted as UNCOMMON words in readability formulae for evaluating reading materials in the primary grades; e.g. Mabel Vogel Morphett, Vivian Weedon, and Carleton *Washburne Winnetka Chart for Determining Grade Placement of Children's Books.* These contractions have been identified as spelling "demons."

Different types of contractions present different types of learning problems:

One syllable contractions, as *I'm, he's, they're,*

Two syllable contractions, as *isn't, haven't,*

Contractions in which the first part tends to retain the same sound(s), as *I've, they'd,*

Contractions in which the sound of the vowel is changed, as in *don't* (do not),

Contractions which are unrelated to the spelling of the word, as *won't (will* not),

Contractions in which 's represents either /s/ or /z/, as in *it's* and *he's,* depending upon the phonological environment.

9. They need to learn to read orally like they talk--with intonation, a keystone to meaning. This is a very complex problem which requires a teacher who fully understands how to estimate *independent* and *instructional* levels of each pupil.

10. They need to learn some of the crucial vagaries of digraphs.

a. *Sh* represents the /ʃh/ in *ship,* but two different sounds in *mishap.* (But the letter s represents /ʃh/ in *sure* and *sugar.)*

b. *Th* represents a voiceless sound in *thin* and a voiced sound in *them.* But in *shorthand* the letter *t* represents one final sound in the first syllable and the letter *h* represents an initial sound in the second syllable. Of course *th* represents /t/ in Thomas.

c. *Wh* in *who* represents /h/.

d. *Ue* represents an on-glide in *fuel* and no sound in *vague.*

(Note: Digraphs – their regularities and inconsistencies – are being vigorously investigated at present. One of the basic issues is how to reduce the number of rules for spelling, and therefore, for applied phonics – how to facilitate learning to read by improving the writing system.)

While this discussion deals primarily with phoneme-grapheme relationships, as one aspect of word perception, this facet of reading instruction can be over/under emphasized. Reading, of course, requires not only decoding writing into speech but also decoding the message (comprehension). This statement is a necessary caveat to avoid endorsing phonics as *the* best or only way of teaching reading.

Options

Both publishers of materials for basic reading instruction and teachers have several options regarding word perception and recognition for beginners.

1. Sight Words

When a pupil comes to a word he cannot identify, the teacher merely tells him the word. This approach to unknown words is not a method, altho it is known as a sight, or look-and-say, "method"! Any literate person – with or without teacher certification – can use it. In simplistic terms, it is a tell-the-pupil-the-word operation which leaves the pupil as unprepared and helpless at

the next encounter with the word as he was the first time. But this inane, fruitless approach may be superior to many phonic and some so-called linguistic "methods."

So how does the publisher or teacher develop pupil independence in word perception – with *are, blue-to-too-two, gave-have, want-am, laugh-lamb, said-bed, here-there,* and so on? There must be more options than to listen-look-n'-say!

2. Phonics

Hans Kurath has commented that "to the person who must learn to match the spellings with the sounds he has used since childhood, mastering English spelling is a time-consuming and frustrating task." (1964, p. 37) Yet, there are productive scholars in linguistics who insist on justifying variant and other types of "irregular" spellings in terms of morphology, emphasizing that orthography is a SYSTEM (which no scholar is likely to dispute!).

Phonics is the study of the relationship between spellings and speech sounds within an orthographic system. Data cited above call for caution in making extravagant claims for teaching phonics as a panacea for most, or all, reading ills. Zealots who make the teaching of word perception sound like a midsummer night's dream reveal little, if any, scholarship in either linguistics or orthography.

Fortunately, for beginners in reading, a small but significant number of words have spellings that help to predict pronunciation, as in (consonant)-vowel-consonant *at-bad* and the split digraph *i* plus *e, five-kite.* From this point, the going gets rougher because the rules of orthography become more numerous and more complex, including not only category learning (e.g., *sat-cap*) but also cue learning (e.g. *l(oo)k, k(ind))* and probability learning (e.g. *m(oo)n – t(oo)k, (ou)t – th(ou)gh – b(ou)ght – t(ou)ch – gr(ou)p).* Add to this spelling jungle many words with "useless" letters, as in *tho(ugh),* and letters which offer few if any cues to pronunciation, as *one, once,* and *you.*

One of the malignancies in any phonics proposal is a teacher who has, through no fault of her own, never studied phonemics or orthography. Anything can and does happen to confuse, confound, and conquer the hapless beginner – all in the name of phonics:

 a. Attempting to say consonants in isolation from preceding or following vowels: e.g. saying *buh* for the *b* of *bat* rather than /ba/, /a/, or /at/.

 b. Using the dictionary entry rather than the respelling as a basis for pronunciation, especially for syllabication.

 c. Confusing sounds and letters, like point to the last SOUND in *day.*

 d. Listening for and saying the sound of *b* in *climb, l* in *talk,* and so on.

 e. Drilling *all* of the pupils on selected words in isolation from the context (sentence or paragraph) whether or not they need it.

 f. Using teacher plans rather than pupil records of words as a basis for forming a *need* group.

 g. Requiring pupils to participate in a word perception or comprehension session (a NEED group) rather than permitting them to volunteer for specific help because they feel a definite need.

 h. Using a "shot-gun" method of drilling on a *potpourri* of phonic rules and situations rather than "rifling" in on a specific need, as the *ar* in *park, car,* etc.

3. Respelling

In the 1970 edition of a basic series of readers for beginners, the pupil is given self-help by respelling selected words with spelling patterns already learned:

Word	Dictionary	Help
what	/'hwät/	rhymes with *not* /nät/
have	/hav/	the *a is* like the *a* in *had*
laugh	/'laf/	(laf)
laughed	/'laft/	(laft)

please	/ˈplēz/	the sound of *ee* in *seed*
two	/ˈtü/	(too) already learned
who	/hü/	(hoo)
funny	/ˈfən-ē/	(fun-)
better	/bet-ər/	(bet-)

Equally important, the pupils were taught long and short countdowns as one step in the systematic study of regularly spelled words. Phonics as a "method" and as one facet of word perception becomes highly significant on "regularly" spelled words. (Betts, Emmett A. "Perceptual Learning: Phonics Countdown," *The Florida Reading Quarterly, X,* No. 2, (Jan. 1974), p. 3-7, Part I. Part II, In Press, May, 1974.)

4. Linguistic Approaches

In 1933, Leonard Bloomfield, Professor of Germanic Philology, Univ. of Chicago, published his book *Language.* This was a "revised version" of his *Introduction to the Study of Language* which appeared in 1914. As a noted linguist, Bloomfield had few peers and his publication is a landmark in linguistics.

In his last chapter, Bloomfield ventured some opinions on the teaching of English grammar and reading. First, he "discovered": "Although our writing is alphabetic, it contains so many deviations from the alphabetic principle as to present a real problem, whose solution has been indefinitely postponed by our educators' ignorance of the relation of writing to speech." (p. 500) Long, long before Bloomfield commented on the somewhat loose relationship between speech and spellings (phoneme-grapheme relationships), several international scholars were studying proposals for spelling reform, as has been achieved in some other countries. But at the time of this writing, agreements have not been finalized on a system for English spelling reform.

Bloomfield's comment on teacher education (too often merely training!) was highly relevant in 1933, and it is today! A systematic laboratory course in neither phonetics nor phonemics is a prerequisite for a laboratory course for the teaching of reading; hence the many "boners" in phonics pulled by teachers and teachers of teachers. Furthermore, few if any teachers, including English teachers, take a course in grammar (traditional, structural, or transformational) as a prerequisite to teaching of reading. And intonation is the key to grammar and, therefore, a master key to word perception and comprehension.

Second, Bloomfield suggested some ideas which needed "to be tried." He recommended:

> The co-ordination between letters and phonemes, accordingly, has to be established as an analogic process by practice on graphs in which the symbols have a uniform value, such as *bat, cat, fat, hot, mat, pat, rat, sat – can, Dan, fan, man, pan, ran, tan, van – bib, fib –* and so on. The real factor of difficulty is the host of irregular spellings which will remain, no matter what values are assigned as regular. (p.501)

He went on to recommend "devices":

One is to teach children to read a phonetic transcription, and to turn to traditional writing only after the essential reading habit has been set up. The other is to begin with graphs that contain only one phonemic value for each letter, and either to postpone other graphs until the elementary habit has been fixed, or else to introduce them, in some rationally planned way, at earlier points. (p. 501)
(To be continued)

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3. Needed Research in Orthography, by Mark Lester*

*Research Associate, The East-West Center, Honolulu, Hawaii, a paper presented at the Reading/Writing Institute, Univ. of Miami, Fla, 1973.

The remarks I would like to make are based mainly on Chomsky and Halle's *The Sound Pattern of English* (Harper and Row, 1969), Chomsky's "Comments for Project Literacy Meeting," *Project Literacy Reports No. 2,* and Bever and Bower's "How to Read Without Listening," *Project Literacy Reports No. 6.*

I would like to make a series of gnomic assertions about the relation of sound and meaning to spelling, and then conclude with some specific recommendations for future research.

(1) The great contribution of structural linguistics to the study of reading has been the development of phoneme-grapheme correspondences. This work has been valuable, but it has been done. Further basic research along these lines would be a waste of time and money.

(2) In the structural view, the ideal writing system would provide an exact one-to-one match between the contrastive sounds of the language (the phonemes) and the letters of the alphabet (the graphemes).

(3) The teaching of initial reading has been influenced by structural linguistics mainly through controlled presentation of phoneme-grapheme correspondences. Typically, a "linguistic" initial reading textbook presents the most common spelling for each sound. After the child has learned to associate this spelling with the sound, the other common spellings are introduced one at a time.

(4) It is ironic that just as structural linguistics has begun to have an impact on such areas of application as initial reading teaching, it has been abandoned by the linguists themselves. As is often the case, the practitioner, who attempts to translate theory into application, is left holding the bag.

(5) The theory that has replaced structural linguistics is termed transformational grammar. It is largely, but not exclusively, the off-spring of one man, Noam Chomsky. The transformational view of the relation between sound and spelling is radically different from the structural view. The following longish quote from page 49 of Chomsky and Halle's *The Sound Pattern of English* makes the key points in this connection:

> "There is, incidentally, nothing particularly surprising about the fact that conventional orthography is, as these examples suggest, a near optimal system for the *lexical* representation of English words. The fundamental principle of orthography is that phonetic variation is not indicated where it is predictable by general rule. Thus, stress placement and regular vowel or consonant alternations are generally not reflected. Orthography is a system designed for readers who know the language, who understand sentences and therefore know the surface structure of sentences. Such readers can produce the correct phonetic forms, given the orthographic representation and the surface structure, by means of the rules that they employ in producing and interpreting speech. It would be quite pointless for the orthography to indicate these predictable variants. Except for the unpredictable variants (e.g., *man-men, buy-bought*), an optimal orthography would have one representation for each lexical entry. Up to ambiguity, then, such a system would maintain a close correspondence between semantic units and orthographic representations. A system of this sort is of little use for one who wishes to produce tolerable speech without knowing the language – for example, an actor reading lines in a language with which he is unfamiliar. For such purposes a phonetic alphabet, or the regularized phonetic representations called "phonemic" in modem linguistics, would be

superior. This, however, is not the function of conventional orthographic systems. They are designed for the use of speakers of the language. It is therefore noteworthy, but not too surprising, that English orthography, despite its often cited inconsistencies, comes remarkably close to being an optimal orthographic system for English. Correspondingly, it would not be surprising to discover that an adequate theory of the production and perception of speech will find a place for a system of representation not unlike orthography, though there is, for the moment, little evidence that phonemic transcription is a "psychologically real" system in this sense.

"It should also be observed that very different dialects may have the same or a very similar system of underlying representations. It is a widely confirmed empirical fact that underlying representations are fairly resistant to historical change, which tends, by and large, to involve late phonetic rules. If this is true, then the same system of representation for underlying forms will be found over long stretches of space and time. Thus a conventional orthography may have a very long useful life, for a wide range of phonetically divergent dialects."

(6) In the transformational view, the English writing system provides an abstract, underlying form. The rules of pronunciation take this underlying form as input, and produce as output the actual articulation of the word.

(7) The abstract, underlying form contains both morphological and syntactical information necessary to determine the pronunciation of the word. For example *record is* pronounced /rékərd/ as a noun and /riykɔrd/ as a verb. Knowledge of a word's part of speech is necessary to pronounce it correctly.

(8) The underlying form accounts for the speaker's feeling of identity between two different pronunciations of the same spelling. For example, the relation between /sawθ/ and /səðərn/ is reflected in the spelling *south* and *southern.*

(9) One of the characteristics of the English phonological system is the way the primary stress shifts from one form to another. The classical illustration of this is Chomsky and Halle's treatment of the word *telegraph.* Without any derivational ending, the word *telegraph* has its primary stress on the first syllable. With the ending -ic, the primary stress shifts to the third syllable. With the ending -y; the primary stress shifts back to the second syllable.

(10) These stress shifts are apparently determined by a variety of factors, such as the nature of the final syllable in the stem of the word, the derivational history of the word, and the type of affix applied to it. The remarkable fact about all this is that the native speaker of English has so completely internalized the rules for the stress shifts that he is largely oblivious of the fact that a change took place at all.

(11) The value of vowels depends in a large degree on the placement of stress within the word. Thus, as the stress shifts from one syllable to another, the vowels automatically change their pronunciation also. For example, notice the effect of adding -y to *telegraph.* Without the ending, the word is pronounced /téləgræf. With the ending, the word is pronounced /təlégrəfiy/. Notice that in the latter form, both the first and third vowels have become non-contrastive, that is, they have been reduced to the non-contrastive vowel /ə/.

(12) The English writing system provides an idealized spelling in the sense that it indicates how each vowel is to be pronounced in the event that the primary stress ever falls on that vowel. Thus the spelling *telegraph* underlies many possible different pronunciations. Other examples are *record,* [1] which underlies the pronunciation of both the noun and verb forms, and the unstressed syllables in *atom* and *metal.* When a derivational ending causes the stress to shift onto the second syllable in those words, as in *atomic* and *metallic,* the ordinary spelling correctly predicts the pronunciation. [2] These examples could be multiplied endlessly.

(13) The abstract, underlying form provides information about syllabic division. For example, it appears arbitrary that the same sound /əl/ is spelled *el* in the word *angel* but *le* in the word *simple.* Yet in other forms of the same words we can see that the *el* spelling correctly represents a separate syllable, as in *angelic,* while the *le* correctly represents a consonant cluster, as in *simplicity.*

(14) The writing system has often been criticized for preserving "silent" letters. Sometimes, however, these "silent" letters account for pronunciations of different forms of the same word, for example the *n* in *solemn,* the *p* in *receipt,* and the *g* in *sign* all appear on the surface in other forms of the words, as in *solemnity, receptive* and *signal.*

(15) From the structural linguist's point of view, *an ideal writing system would provide a correct way of indicating how a word was pronounced.* This is certainly one goal of an alphabetic writing system. However, there exists another goal that may be even more basic – the need to spell the same word the same way no matter how it is pronounced. [3] These two goals are probably mutually incomparable. Any historical alphabetic writing system wanders back and forth between these two goals in an inconsistent way. Nevertheless, the locus of movement is much nearer the second goal than we had realized.

(16) If we accept the generalization expressed in (15), the abstract, underlying form of a word (expressed in English by a system closely resembling the ordinary writing system) is much nearer the meaning of the word than the actually pronounced form is. The pronounced form is the product of the underlying form plus the operation of the phonological rules that determine how that underlying form is to be realized in actual speech.

(17) The observation in (16) amounts to a reversal of the structural linguist's view of the relation of meaning, speech and writing. To the structural linguist, writing is at best a reflection of the spoken language. One implication of this view was that reading must involve some kind of verbal mediation. In the transformational view, writing reflects a level of abstraction that is nearer meaning than speech is. One implication of this view is that reading (at least for non-beginning readers) may skip the verbal or oral stage of language altogether.

(18) The obvious fact that we can read many fold times faster than we can possibly hear suggests the probability that reading speed is not tied to verbal mediation.

Conclusions and recommendations for research

To me, the great motivation for investigation of orthography and of the initial reading process is the light that such investigation might shed on the child's phonology, both in terms of how it works and how he has acquired it. At the moment, there seem to be two likely avenues of approach: (1) error analysis of typical spelling and pronunciation mistakes, and (2) the spelling and pronunciation of nonsense words. An investigation of (1) might suggest ways in which the child has over-generalized the rules on the basis of the limited data that he already possesses.

An investigation of (2) might suggest the way the child's rule system operates when free of external restraint, and might also provide some hints about the child's conception of the underlying forms of words. This approach could also examine what kind of strategies a child employs in learning to spell and pronounce words, given variously structured input data. Another large question along these lines is the difference (if any) between the phonology and learning strategies of children and adults.

[1] (and all homographs).
[2] Editorial comment: How?
[3] Ed.: What need? What advantage?

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4. Predicting Reading Difficulty from Spelling, by Milton D. Jacobson

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In a recent article, Betts (1973) stated that "spellings for English sounds are major hurdles in learning to read and write (spell)," and that "(this) statement is seldom understood by parents and teachers."

The reasons cited for difficulty in reading due to the spellings of phonemes are primarily based on complex correspondence between written and spoken words, and it is not unreasonable for teachers and parents to be unable to understand something as vague and general as this phenomenon. Two large scale research projects which could have provided illuminating insights into the relationships between spelling and reading difficulty were completed by Hanna, et al (1966), and by Dewey (1970). Unfortunately, both explored only one dimension of the relationship. Each explored spelling, but ignored reading difficulty.

The work reported here has explored both reading difficulty and spelling and provides evidence that it is not only possible to predict reading difficulty from spelling, but to do so with a high degree of accuracy. The next sections will present a brief discussion of measures of reading difficulty, measurement of phoneme spellings, and the results obtained by relating reading difficulty to spelling.

Reading Difficulty

The reading difficulty of books in a basal series is usually graded into levels by publishers who intend that each level be gradually more difficult than the preceding level. A first reader would be more difficult than a primer which would in turn be more difficult than a preprimer. Many formulas have been developed to predict reading difficulty as measured by the grade levels assigned by publishers. A widely used formula for predicting reading difficulty of primary materials (grades one to three) was developed by Spache (1953). It based the difficulty of graded sample materials on the grade levels assigned by the publishers. Another technique of measuring the difficulty of reading materials is to use the grade scores assigned in the McCall-Crabbs Standard Test Lessons in Reading (1926). A widely used formula (Dale-Chall, 1948) for predicting difficulty of intermediate materials (grades four-eight) was based on McCall-Crabbs assignments.

Other formulas try to predict student difficulty in reading sample passages as measured by the percentage of correct responses to comprehension questions or by completion of Cloze (Bormuth, 1969) blanks.

Using any of the above, it is possible to assign a difficulty rating to reading samples and to develop a formula to predict this difficulty from characteristics of the text itself. Most formulas include two elements. One measures vocabulary difficulty and the other sentence difficulty. Both the Spache and the Dale-Chall formulas measure vocabulary difficulty by counting sample words not contained in word lists. They also consider long sentences more difficult than shorter ones and measure this difficulty by counting the number of words in a sentence.

Other readability formulas have been developed which use elements other than vocabulary difficulty and sentence difficulty. Interestingly, Lewerenz (1929) developed readability formulas which used word parts (initial letters) as variables for predicting readability. His formula

empirically verified that words beginning with certain vowel letters such as *e* and *i* were difficult, while words beginning with other (consonant) letters such as *b, w,* and *h* were easy for primary and elementary pupils. Flesch (1943) used counts of the number of affixes (prefixes and inflectional endings) as one variable in his readability formula and considered this a measure of the abstractness of individual words. If one looks at this research not to justify the inclusion in readability formulas of specific initial letter variables or of specific final letter variables but as pioneering examples of measures of spelling difficulty (graphemes) then it indicates the direction to proceed in order to measure spelling difficulty in a general way and relate it to reading difficulty.

Spelling

Three spelling studies of Betts (1969), Hanna, et al (1966), and Simon and Simon (1973) should illustrate the nature of spelling research and also demonstrate that such work was primarily concerned with spelling difficulty. Each study analyzed the complexity of correctly spelling phonemes with our 26 letter alphabet and demonstrated that a large percentage of English words have irregular spellings. These studies did not address themselves to the relationships between specific spelling patterns and reading difficulty.

Betts (1969) described basic reading in the context of perceptual learning-emphasizing category learning, cue learning and probability learning. His category learning is pertinent to this paper. Word patterns were analyzed according to categories, to see if spellings could be predicted from sounds. The categories chosen had consistent spellings and would provide generalizable ways for correctly spelling other regularly spelled words. Three categories were used: "(C)VC, e.g., rag, bet, hit, not, rug; (C)VC(e), e.g., made, ride; (C)VVC, e.g., eat, goat. In each instance, the C is an abbreviation for consonant; the V, for vowel. While each word pattern has a VC sequence as in 'at,' 'it,' 'up,' and 'egg,' not all word patterns have an initial consonant as in 'hot' and 'hide.' Hence, the first C is usually enclosed in parenthesis to indicate that the initial consonant may or may not be part of the word pattern. Further, the (e) in (C)VC(e) pattern is the final *e* cue to the sound for the vowel letter" (1969, p. 2).. Betts concluded that these three patterns would give correct spelling of 47% of the commonest monosyllables in the Dale list (Dale-Chall, 1948).

Hanna, Hanna, Hodges and Rudorf (1966) analyzed 17,009 most common English words to obtain phonemic rules that children could use to provide correct spelling of words. They demonstrated that certain phonemes and their spellings (graphemes) have preferences for certain positions in most common words. Thus it is useful to consider the (initial, medial, syllable-final, word-final) positional dependency for phonemes or graphemes.

For example, they present evidence for this positional dependence and illustrate this with 'I_3' (as in *i*ll) which is one of their 22 phonemic classifications for vowels. [1]

In their common word list, the phoneme /I_3/ had 22 different spellings (I, Y, I-E, IE, etc.). However, only two of these spellings, I and Y, provide over 90% of the spellings of /I_3/. Further, I occurs in the initial position in syllables nearly 90% of the time, with the remaining 21 spellings occuring in the initial position only 10% of the time in the common word list.

A second example shows that the /O_7/ phoneme (as in *foot*) *is* spelled by *U* 83.09% of the time in the medial position in unaccented syllables. The other spellings (OO, U, OU, U-E, O, etc.) occur less than 7% of the time.

Thus, they document an overwhelming case for concluding that the specific spellings of phonemes depend on whether the letter (letters) is in the initial, medial, or final position in syllables or words.

Their analysis provided a list of about 200 rules which they hoped would provide more accuracy in spelling. Rudorf (1965) used a computer program for applying these rules to spell the 17,009 words. This resulted in the correct spellings of 80% of all *phonemes*, but when these phonemes were combined to form the *words* in the list, only half (49.87%) were spelled correctly.

Hence, students who consistently used the 200 rules would misspell half of the words attempted. Application of Rudorf's program to another list of words which 40% of eighth-graders and 80% of twelfth-graders spell correctly, were even more discouraging. The program correctly spelled only 26% of the words (Simon and Simon, 1973). This and further evidence led Simon and Simon to conclude that consistent use of this program would hurt the spelling of all but the poorest students above the fourth-grade level.

A third illustrative spelling study is that of Simon and Simon (1973). In this study they hypothesize that the majority of correct spelling comes from combining phonemics with reading. They developed a computer program in which word recognition information was used to supplement phonemic sequences. For example, in spelling "knowledge," the phonemic sequence which consists of 5 phonemes (N_0 O_3 L_0 E_3 J_0) would be modified to include the word recognition that "knowledge" begins with the letters KN. By appropriate detailed programming they developed a computerized spelling process called Generate-And-Test. It generates one or more spellings for each word. Then it tests these to see if any spelling matches the word recognition information. They compared the results of the computer spellings on words such as "knowledge" and "responsible" with the spellings of a sample of fourth-grade students and found considerable similarity between the misspelled words made by the computer and those made by students. Thus the work of Hanna, et al (1966) and of Simon and Simon (1973) provide processes whereby a computer can simulate some misspellings of students and some correct spellings.

It has been suggested by Betts (1973) that spelling causes reading difficulty and by Simon and Simon (1973) that reading is related to correct spelling. The next section will provide an analysis of the relationships between spelling and reading difficulty.

Reading Difficulty Predicted by Spelling

In order to relate spelling irregularities to reading difficulty, it was first necessary to develop a computerized procedure which could recognize any individual letter or combination of letters (graphemes) and keep a record of whether these occur in the initial, medial or final positions in words. After extensive and intricate programming, the computer was able to classify and count occurences of thousands of different spelling combinations in reading material being processed.

In one trial, 37 spelling patterns were used to determine spelling difficulty. These patterns were based on 101 spelling rules which had been found by Hanna, et al (1966) to have positional dependency. For example, the /F/ phoneme, when it is spelled with the letter *F*, occurs in the initial position of 87.4% of syllables. When spelled with the letters *PH*, it occurs in the initial position 75.2% of the time. When spelled with the letters *FF*, it occurs in the final position 65% of the time. Thus, one of our 37 patterns was determined by three spelling rules: initial *F*, initial *PH*, and final *FF*. Similar sorting of the phoneme /*SH*/ yielded a pattern based on 5 rules: initial *TI*, initial *SH*, initial *CI*, final *CI*, and final *SH*. In this manner, all 37 patterns were developed. In this trail, a sample of textual material consisting of 100,000 words from 480 primary (pre-primer to third grade) reading passages was processed by the computer which acted like a word-smasher. It broke up each word into initial, medial or final parts and then grouped these under the appropriate 37 spelling patterns. It counted the frequencies of occurences of each of the 37 spelling patterns in each

of the samples. Then it used these counts to predict reading difficulty measured by the publisher's assigned grade levels.

The results were extremely accurate as the spelling patterns explained 84% of the reading difficulty (this is equivalent to a correlation value between spelling and reading difficulty of .92). This accuracy can be directly compared with that of the Spache formula which has a calculated accuracy of .67 based on a reported correlation of .818. Thus, a 25% increase in the accuracy of predicting reading difficulty is obtained by using measures of spelling irregularities rather than the Spache formula.

The computer printout makes it possible to identify those spelling patterns which contribute significantly to the prediction of reading difficulty. The largest predictor is the words which end with the letters *LL*. The second largest is the words which begin with the letter *E*. The words which end with *LL* contribute to reading ease (are negatively correlated with reading difficulty) while the words which begin with *E* contribute to reading difficulty (positive correlation). A better understanding of why words in one spelling pattern relate to ease of reading while those of another relate to difficulty of reading can be obtained by looking at the words which were placed in each category. Xeroxed copies of computer printouts containing these words in each category which occured in the reading samples are provided in Table 1.

Inspection of this table suggests that the factor that distinguishes easily read words from words difficult to read is the *degree of correspondence between the letters and the sounds.* The letters *LL* in the final position of words represent only one sound and are easily read. In contrast, the letter *E* in the beginning position represent at least seven sounds which contribute to making words beginning with *E* hard to read. Some of the sounds identified in Table 1 for words beginning with *E* are as follows: (1) "long" sound as in *e*ven; (2) "short" sound as in *e*nd, else; (3) two vowels together, as in *e*ach and *e*ither; (4) *EA* controlled by *R*, as in *ea-r*, (5) *EA* controlled by *R,* as in *ear*ly; (6) *E* followed by *Y*, as in *eyed*; (7) *E* followed by *I* with a "long" *A* sound, as in *eight*. A dozen more letter uses for *e* could be given.

Conclusion

In summary, this paper reaffirmed the initial statement that "Spellings for English sounds are major hurdles in learning to read." (Betts, 1973, p. 455), and developed research procedures which should facilitate making this statement easily understood by parents, teachers and academic professionals.

Table 1
Computer Listing of Two Spelling Categories
Words beginning with *e*:

em	either	eight	evening
each	else	empire	exactly
eager	electric	employ	except
eagle	end	elevator	excited
early	enjoy	enough	exclaim
east	enemy	enchanted	experiment
eats	envelope	engineer	explain
ears	envy	escaped	explore
earn	engine	especially	extinct
easy	empty	escalator	extreme
easily	english	even	exaggerate
edge	egg	ever	eye
elephant	enormous	every	eyes

Words ending with *ll*:

all	farewell	know-it-all	skill
ball	fell	mill	still
baseball	fill	nightfall	tall
bell	full	pull	tell
bill	hall	roll	till
call	hill	sell	they'll
doll	he'll	shall	wall
drill	ill	she'll	well
dull	I'll	shell	will
doorbell	jill	small	windowsill
fall	kill	smell	you'll

[1] These classifications were listed in the *Merriam and Webster New Collegiate Dictionary* (Sixth Edition); however, the current (eighth) edition lists 24-26 classifications depending on the classification of /y/. This suggests that the Hanna, Hanna, Hodges and Rudorf study may be somewhat dated.

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5. The Importance of Medium and Motivation in the Learning of English as a Foreign Language, by Sir James Pitman, K.B.E.*

*London, Eng. A paper presented at the IATEFL Conference, London, 4th Jan. 1974.

My thesis is that if English were made easier to learn particularly in the earliest stages – motivation would be generated among more intended learners; furthermore, that motivation would be more sustainable among those so initially motivated; that the difficulties imported by the medium play an important part in making learning difficult, and may easily – and with no disadvantage – be simplified.

1. English is, in a number of respects, one of the easiest of all the foreign languages to learn. It is however, in the medium of its literacy that the great factor of difficulty has been imported. These points were well put by Jakob Grimm:

> "English may be considered the language of the world out of Europe, and this idiom . . . has attained an incomparable degree of fluency, and appears destined by nature more than any other that exists to become the world's language. Did not a whimsical, antiquated orthography stand in the way, the universality of this language would be still more evident . . ."

2. "Whimsical" is not a little euphemistic for the difficulties which the medium imposes upon the use of literacy as a concomitant to oracy in the learning of English. Every foreigner knows the difficulties occasioned by our misleading and irrational spelling: many of them – particularly those not used to the three variants of the Roman alphabet – are aware of the difficulty occasioned by the capricious use of our three differing alphabets. Together these two difficulties constitute a formidable barrier to ease of learning which works against both the generation and the maintenance of motive, and indeed deters many from even trying to learn. Very many of those who are not deterred from trying, lose their initial motivation as soon as they discover – which they cannot help doing, so general is the distribution and display of English words in their visual form – the enormous conflict between oracy in English (what their ears and their vocal organs need to learn) and literacy in English (what their eyes and their fingers need to master).

3. Thus motivation widely aborts; and the cause has been--and will continue to be--this conflict and the consequential further handicap, gratuitously accepted, of separating the teaching of literacy from that of oracy.

We thus separate, as will be shown, for an unnecessary reason the learning of literacy with oracy, instead of learning them together, when each could support the other in concordance – in lieu of conflict – about which see paragraphs 15 to 18 which follow in order.

Whereas the learner of Chinese has only one visual form for any one Chinese literate form for each oral form, there is in English no English word that has fewer than three forms: e.g. even A, a, or *a* for the indefinite article!

4. We need to remember that literacy in English is hard to learn even with the Look-and-Say method. There are so many variant word forms in our literacy. Three letter words will have ten or

more variant forms (see figure I), and Fl*ag* has no less than 16 variant forms. Thus in needing to master three alphabets – the accretions of two millennia – the learner of English finds himself confronted by a considerable variety of forms for what, in oracy, is *only one* form.

Figure I

BAG, Bag, Bag, bag, bag, &ag, bag, bag, Bag, Bag

5. The fact that such multitudinous varieties do not impede or cause any hesitation in the reading of English by those of us who have learned and become skilled readers in English is irrelevant, seeing that the issue is the deterrence of variety upon those who have no skill in either listening or reading. The fact, however, indicates two points: first, how important is the benefit of context in all language situations; and second, how little we, who have learned to read, realize the inherent difficulties of those less skilled when first learning to read. It is hard for us to appreciate how important are ease and success in the earliest stages of the initial learning process, and how not only in generating motivation, but also in maintaining it, is the expectation and realization of success. We must seek, therefore, a simplification of the learning medium to bring easier and earlier success. After all, just as nothing succeeds like success, nothing fails and deters like failure.

6. I must make it clear, perhaps, that a simplification of the learning medium involves no reform of the spellings of our 600-year-old form of literacy. The learning period may be initial, remedial, or developmental: in all cases; notwithstanding the use of a simplified initial learning medium (I.L.M.) the learner will in fact be learning to read fluently our traditional orthography (T.O.) – even in all its many variant forms, including those 16 of FLAG. The ease and immediacy of the transition once the language has been learned, and once reading in the simplified I.L.M. has been mastered, are now beyond question. The degree of changes in T.O., which will simplify it and make a simple I.L.M. the learning medium, need be very small. The only barrier to accepting that change – small though it be – comes from those who have learned literacy in English and suffer apparently an inevitable trauma at "tampering with our glorious heritage" – from those who attach great significance to each such minor and functionally irrelevant difference.

7. Those whose emotions are sensitively "on edge" should rather curb their potential hostility, having first considered that many publications are now, of choice, printed in lower-case characters, and that the proposed systematization of our T.O. for the purpose of teaching English more easily with the characters of the proposed I.L.M., differs from T.O. much less than the characters of our present three alphabets (A, a, ɑ; B, b, ƀ, etc.) differ from one another, and differs little – and very tolerably – in its spellings. (See Figure II)

8. This is because about 40% of our literacy is already systematically alphabetic in its visual form, and needs no systematization other than the elimination of the uppercase and the cursive variant forms. Of the 22 commonest words, with an aggregate recurrence of 35.4% in a page of continuous matter, eight (e.g. from: *and* (4%), *a* and *in* (each 2.1%), down to: *at* (0.6%) are identical both in T.O. and in any systematization. A further about 40% are digraphic, and so are not dissimilar from the most usual T.O. spellings – that is to say, words incorporating two characters, *such as s* and *h* in *ship*, *n* and *g* in *king,* and the other digraphs which the mediaeval monks were forced to adopt as expedients when translating the Latin Bible and needing to spell, with no more than the 26 letters of

our present Roman alphabet, at least 17 sounds of English which had no place in Latin speech, and so no characters in the Roman alphabet.

Figure II

THAT THERE ARE FAR GREATER DEPARTURES WITHIN T.O. THAN

that there are far greater departures within T.O. than

that there are far greater departures within T.O. than

that ther ar far grœter departuer s wiᴛhin T.O. ᴛhan

Figure III

	i.t.a.	T.O.	Example		i.t.a.	T.O.	Example
1.	a	a	arm	11.	ω	oo	book
2.	æ	ae	aeroplane	12.	⍵	oo	moon
3.	au	au	autumn	13.	ɾ	r	her (herring)
4.	ᴄh	ch	church	14.	ſh	sh	bishop
5.	ee	ee	feet	15.	ᴛh	th	thigh
6.	ie	ie	die	16.	ᴛh	th	thy
7.	ŋ	ng	thing	17.	ue	ue	due
8.	œ	oe	toe	18.	wh	wh	why
9.	ou	ou	out	19.	ꙅ	s	dogs
10.	oi	oi	oil	20.	★ ʒ	s or z	azure

There are three supererogatory characters (wh , ɾ and ꙅ), making 20 instead of 17 augmentations to the Roman alphabet. These have been added to make the transition in reading even easier.

*This character is in fact that character which is employed, instead of z, at the end of the third (i.e. the cursive) alphabet of T. O.

9. Here are the 17 + 3 characters (all but two of which are digraphic) which augment the Roman lower-case alphabet and ensure that the second 40% of continuous 'literacy may be made to appear as, in effect, identical with a generally accepted spelling in T.O.

10. Thus the visual forms of this second 40% are virtually identical in appearance with those they systematize: e.g. ᴄhurᴄh, ſhip, feet, wiᴛh, etc. After all, for learning English there is an important difference between bis*h*op and mis*h*ap; shor*th*and and nor*th*ern, nor*th*, Sou*th*ampton and *Th*omas.

11. Consequentially the remaining 20% contain those spellings which give the learner of English literacy, and particularly of oracy, the difficulties which Jacob Grimm, and every foreigner since, has immediately found so obstructive to learning oracy in English, and so corrosive of motive. It is only these which need re-spelling to obtain a simplified I.L.M., and even in these the changes may be confined to alternative spellings of that sound which is to be found in T.O., as will be seen from Figure III.

12. It is little consolation to the learner to tell him that there are admittedly a number of regular irregularities in the alphabet relationships between literacy and oracy which are so frequent as to become in effect rules, and that these words do not need to be re-spelled because they are only a minor obstruction to learning and motivation. For instance, *ow, oa*, and *o* are possibly so frequent irregularities as to become virtually regularities and worth retaining in addition to that of *oe* in *toe*. But these are only four out of 37 different spellings of that sound – and anyhow, both *bow* and *row* have heterophonic values; moreover, while *go, no*, and *so*, *home*, and *dome* seem to support any such purported rule, *do, to, who*, and *come* and *some* conflict. Thus even these supposed rules are so frequently negatived that Jacob Grimm is seen to have been clearly right after all.

13. The January 1972 issue of The *Incorporated Linguist*, in an article entitled *Oracy and Literacy*, carried a specimen of a medium: *Speech i.t.a.,* the speech-teaching version of the Initial Teaching Alphabet (i.t.a.) See Fig. IV:

It is a simplified I.L.M. which systematizes T.O. with no significant departure from the traditional forms, and has moreover been found in practice both to achieve more and better successes for the foreign learner, and so to encourage and sustain motive. Furthermore it involves no difficulty whatever in the "transition" from literacy in the I.L.M. to literacy in T.O. The change-over in reading from *Speech* i.t.a. to T.O. needs no teaching, and no learning-time or effort. It is immediate and automatic once skill in the I.L.M. has been achieved. Admitedly skill in spelling needs teaching – or at any rate effort and time in learning. It is not, as is the transition in reading, an immediate and effortless process, any more than it is for the already English-speaking child. However, for the transition by the foreigner to orthographic spelling there is already sufficient evidence to confirm for them and *Speech* i.t.a. what has been found for the already English-speaking child and ordinary i.t.a. – that the transition in spelling, though delayed, is achieved with a higher standard of accuracy. (See "But Will They Ever Lern to Spel Korectly?" *Educational Research*, vol. 12, no. 3, June, 1972: N.F.E.R., Windsor)

Figure IV
Where I.P.A. falls short

az every reeder will nœ the internaſhonal fonetic alfabet is wiedly uesd as a meedium for teeching lisening and speeking, but with sœ græt a departuer from the forms ov tradiſhonal orthografy (T.O.) that teeching ov reeding, rieting and particuelarly ov spelling in T.O. is grætly viſhiæted.

thus the græt advantæj ov speech i.t.a. is that whiel it mæ bee uesd just as effectivly as I.P.A. tω teech lisening and speeking, it offers aulsœ a much mor effectiv tωl in teeching reeding, rieting, and cueriusly as reserch has establiſht, eeven spelling aulsœ.

Here at Figure V is the passage which explains the symbolization added to ordinary i.t.a. for the purpose of teaching speech.

Figure V
Variations in stress and in vowel sound

It has been possible, without any disturbance of compatibility with ordinary i.t.a., to indicate not only three degrees of stress, but also two additional vowels. Primary stress is represented by black type, secondary by ordinary type, and absence of stress by smaller type. This difference in size offers a choice of "position" – either raised or pushed down in relation to the line of print. The employment of the smaller characters (in the lower of the two positions) thus provides not only an indication of loss of stress, but also a symbolization for the vowel change to the unstressed "schwa" – the vowel spoken in weak syllables such as those in "metal", continent, pencil", "atom", "upon", "picture", etc., and in the weak forms of words such as "are" "to" "that" "would" etc. Similarly, the positioning of the smaller characters in the higher position provides not only an indication of loss of stress, but also a representation of the unstressed "schwi", as I have called it, the vowel spoken in the weak forms of words and syllables such as "be", "been" (and such as "the" in front of a vowel or of "y", in such conjunctions as "the onion", "the United States", the yellow submarine"), etc., and of the weak syllables in "equator", "before", "Sunday", "committee", "dotage", "printed", etc.

It will be noted from the specimen of Speech i.t.a. on this page how much additional phonetic information has been supplied – all without any departure from the characters used or the spellings employed in ordinary i.t.a.

14. The forms of *Speech* i.t.a. are in essence no different from those in ordinary i.t.a. (See Figure II--a random wording comparing T.O. lower case with i.t.a.). The implication is that while *Speech* i.t.a. *and its accompanying tapes* should be used for teaching oracy, ordinary i.t.a. should be used for teaching literacy, and that the two should be used *pari passu* from the beginning (i.e. with no longer any time-lag between the teaching of any passage in oracy and the teaching of it in literacy.)

15. There remain two points. First that language is indivisible, and that therefore, if the purpose be to teach language in the most important form of its manifestations (speech), there is great advantage in enabling the learning of that one skill to be automatically and instantly the learning also of the other three.

16. Years ago, for the purpose of writing about the teaching of shorthand, I invented my own word, in order that its impact should be undeniably novel, seeing that it had not until then existed. If I now write it – "Poppollington" – it will no doubt be equally novel. The reader will appreciate that he has instantly learned it, not only as a word to read but also as one to write, one to hear, and one to speak. Professor Ritchie Russell, lately Professor of Clinical Neurology, Oxford University, explains this phenomenon by the fact that we have one language centre in our brain, and that a stimulus to that centre – whether a reception by, or an emission from that centre along any of the nerve channels which serve it – produces automatically a companion skill along the other three channels. Indeed, if anyone with the ordinary skills in the English language not only in listening, speaking, reading and writing be also a shorthand writer, a touch typist, a lip reader, a listener and tapper of the Morse code, and a toucher and embosser of Braille, then those seven further language skills would be acquired with no learning effort. It is for this reason that the *pari passu* teaching of the two skills of oracy is so greatly more beneficial when this automatic and instant addition of companionate skills is made possible. Indeed, as Dr. Ritchie Russell has written:

"There is of course a very close anatomical and functional link in the brain between all aspects of language. As man gets more information to his brain through vision than through any other sense, the reading aspect of language maybe expected to form a dominant part of the higher uses of language for intelligent thought, etc. It seems likely that for physiological reasons, the visual aspects of language should be developed concurrently with the auditory, and I expect that Russian success in this direction is related to the teaching of Pavlov, who was encouraged 30 years ago, to guide the application of physiological knowledge to all aspects of Russian education."

Dr. Ritchie Russell's book on *Traumatic Aphasia* (1961, Oxford University Press) written with Dr. Espir, has a relevant passage on p. 171.

17. Where there is conflict instead of harmony in the relationships between literacy and oracy, only oracy is learned when learning oracy, and only literacy when learning literacy – at best two language skills instead of four. For instance, if the inhabitants of this non-existent village were to pronounce that name "Plumpton" and it were to have been read as "Poppollington," only the skill of literacy would be acquired, and all occasion for the acquisition of listening, of speaking, and of lip reading – all skills relating to oracy – would have been missed.

18. Moreover because, as Russell points out, the eye is better than the ear in learning language, and thus reading even better than listening, it must surely be helpful to the learner to provide him with the opportunity to use his eye from the beginning as well as his ear, his fingers as well as his vocal organs, so that he may not only learn language more easily but learn it in all four of its skills at any one time. Thus the practice of teaching oracy first and literacy later is doubly wrong – being an imposition occasioned only by the supposition that T.O., with all its conflicts between literacy and oracy, is the best – and only! – initial learning medium which can be used.

19. The other intriguing point is that we need a new term – a *reading system* as being distinct from a writing system – and to begin thinking in that new term. The specimens in Figure II and Figure IV need no phonetic convention to be determined before they are read. The desired symbol-to-sound conventions will in fact be determined by the speaker's sounds when heard on the tapes. Thus the foreign-speaking learner will listen to that particular version of English speech which had been chosen – and different choices will have been made in the different regions of the English-speaking world, and the print on the pages made to reflect that speech. In the case of ordinary i.t.a. and of the already English-speaking learner of reading, it will be his speech habituations – and his alone – which will determine how he pronounces each word he comes to recognize. There can be no supposedly standardized and *single* sound attached to the characters. Indeed, so different is a reading system from a writing system that it is possible to claim that the reading is so perfectly "phonetic" in its representation of sounds for each and every reader that each of the many billions of readers finds his idiosyncratic speech – and unique version of speech – perfectly represented.

20. There ought not to be, and there cannot be, in the teaching of English as a second language, one standard pronunciation of English with its own "writing system" – as there needs to be (but even then in only an approximation) when the purpose be to print a pronouncing dictionary based, for instance, on the Received Pronunciation – e.g. the dictionary of Daniel Jones. No-one can reasonably suppose that it will be desirable, in teaching English to young Puerto Rican children, to employ tapes spoken with the pronunciations "most usually heard in everyday speech in the families of Southern English persons who have been educated at the great public boarding schools," as R. P. is defined by Daniel Jones. Good Rooseveltian English is what is needed.

21. Clearly, therefore, that passage in *Speech* i.t.a. in Figure IV will need to be printed and to be pronounced with as many varieties of vowel and even consonant sounds (e.g. minority, mienority; sheduel and skeduel) as there are varieties of "good" English speech, which will be desirable for reproduction on the tapes. Moreover since rhythm and stress are such important factors in those varieties of "good" English speech, the tapes, and therefore the print; will need to vary for this reason also. In other words, just as the tapes must be allowed to vary for differences in vowels and consonants, so too must they very in the incidences of stress and change of vowel; and the printed page made to vary correspondingly.

22. It will rightly be asked, "'What is good English speech?" In answer let me quote this short extract from my article in *The Incorporated Linguist,* "Oracy and Literacy." (See Figure VI)

Figure VI
Stopping another Tower of Babel

It is greatly to be hoped that the pronunciations on the tapes to be used in conjunction with the books will be chosen with discretion flat is to say, within those restricted limits which radio, television and the films maintain. Indeed, the teaching and wide use of minimally

differing versions of English speech may well become a most valuable by-product from a general acceptance of Speech i.t.a. Thus Speech i.t.a. could yield an improvement even more socially valuable and important than the main achievement of teaching the English language (in at least four of its manifestations) much more successfully and easily. It is generally agreed that English speech is becoming "Babelized" as Latin was earlier. It is thus most important that further building of the tower should be stopped, and that those storeys of it which have been already raised should be razed to the ground-in the opposite meaning of those respective "heterographic homophones". It will be a happy day if the general acceptance of an Initial Speech Learning Medium – and a wise choice of the pronunciations recorded on the tapes – were to bring it about that the ordinary man-in-the-street of New York, Melbourne, Lagos, Singapore, Bombay and London could sit round a table communicating in, say, Jamaica, each in his own version of English speech freed from those interferences of variant pronunciations which impede functional communication and make intercommunication by speech so often irksome and even sometimes impossible. This is an aim as feasible as it is desirable, as was shown by the success of Franklin D. Roosevelt and Winston Churchill when they were able to speak, each in acceptable English, to vast English and American audiences notwithstanding the differences in their pronunciations.

23. There is a wide – indeed general – acceptance by those best qualified to advise on education that the teacher's expectation of the student's success is of great significance in the success which will be realized by the student. Moreover the student's own expectations are of equal, if not of even greater; significance.

24. There can be no doubt that Jacob Grimm was right: also that a systematized initial learning medium (I.L.M.) closely related to the sounds to be both listened to and to be spoken in oracy, is able to eliminate those "whimsicalities": also that the transition from the I.L.M. to T.O. is effortless in reading: furthermore that the learning of the ability to spell orthographically in T.O. (which is particularly difficult in itself – even more difficult than learning to read) is more easily mastered when tackled *after* reading skills have been successfully developed through an I.L.M. rather than while learning to read – which is difficult anyhow. All of which being granted, the supposition is confidently advanced that if a simplified I.L.M. be employed, the teacher and student will have an enhanced expectation of success, and will each of them benefit from a higher initial motivation: furthermore that each will not only sustain the higher initial motivation, but even increase it, because they experience that greater ease in teaching and learning which simplification affords.

25. The copyright is freely and generally given to use *Speech* i.t.a. for teaching oracy, and to use ordinary i.t.a. for teaching literacy. Mr. J. Matson of the Monotype Corp., Salfords, Redhill, Surrey, or I will gladly help any author and any publisher in any country to the means of getting printed in this particular I.L.M. both *Speech* and ordinary i.t.a., and will advise any printer, additional to the one who "set" the type for Figure IV, how to obtain the special typesetting equipment for printing *Speech* i.t.a.

26. Thank you – and please make a note to read that article in *The Incorporated Linguist* of Jan. 1972 The thesis clearly covers a highly important development in the technique of teaching English as a foreign language, and is one worth careful study and evaluation *in practice.*

Bibliography

The following bibliography is relevant to use of i.t.a. in the teaching of English as a foreign language.

The majority of the items are relevant to teaching literacy through ordinary i.t.a. Only those four marked with an asterisk are relevant to the teaching of oracy also – using both tapes supplementing the *Speech* i.t.a. printed materials for teaching oracy, and ordinary i.t.a. for teaching literacy. Copies of these items may be obtained from, or studied at, the i.t.a. Foundation.*

1. "i.t.a. and Teaching English as a Second Language", by Sir James Pitman, KBE. Published in "i.t.a. and the World of English", Proceedings of the 2nd International i.t.a. Conference, Lehigh Univ., U.S.A. Aug. 1965.
2. "The Use of i.t.a. with Immigrant Children," by C. M. Wilkinson (Lancashire, Eng.) Published in *The i.t.a. Journal,* No. 10, Nov. 1966.
3. "The Use of the Initial Teaching Alphabet in Teaching English as a Second Language to Speakers of Spanish" (Texas U.S.A.), by James Larick. Published in "i.t.a. as a Language Arts Medium", *Proceedings of the 4th International i.t.a. Conference,* McGill Univ., Montreal, Canada, Aug. 1967.
4. "English as a Second Language to (a) Predominatly Negro Population, and (b) Predominatly Spanish-Speaking Population" (Dade County, Florida), by Bob Sipes. Privately circulated, Sept. 1968.
5. "Disadvantaged Children and the Effectiveness of i.t.a.", by Jack A. Holmes and Ivan Rose. Published in *The Reading Teacher, vol.* 22, No. 4. Jan. 1969.
*6. "World Initial Teaching Alphabet *versus* Traditional Orthography", by John Abiri (Univ. of Ibadan, Nigeria) July, 1969
*7. "The Preliminary Use of i.t.a. in the Teaching of English as a Foreign Language in Germany," by Frederick H. Schmitz op der Beck. Published in "i.t.a. and the Right to Read," *Proceedings of the 6th International i.t.a. Conference,* Vanbrugh College, York Univ. Sept. 1969.
*8. "Speech training in courses designed to prepare teachers of English as a second language for the use of i.t.a." (Test Africa), by Raymond S. Newberry (British Council). Paper presented at the 7th International i.t.a. Conference, London Univ. Aug. 1970.
*9. "Report of Committee Appointed in Dec. 1971 by The Education Department of The Gambia to assess the Suitability or otherwise of adopting the i.t.a. Medium of Teaching," by J. E. M. Thornhill (British Council) and others. Privately circulated. 1973.
10. "The Effects of i.t.a. on the Reading Achievement of Mexican-American Children," by Terry Steven Trepper and Douglas J. Robertson. (Privately circulated; not yet published). Sept. 1973.

The Initial Teaching Alphabet Foundation, Reigate, Surrey, Eng.

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6. A Flemish Linguist Looks at the Simplification of English Spelling, by G. Verboven*

*Prof. of English, English Dept., Univ. of Antwerpen, Belgium.
Reprinted from *Spelling Action,* Mar. 1974, Harry Lindgren, Ed.

In the letter accompanying the following article, Prof. Verboven, who recently joined the SAS, wrote as follows:

I am a member of the Dutch society since 1930, witnessed the third simplification of the Dutch spelling in 1934 and I am consequently most interested in the simplification of English spelling. Contrary to the simplified spelling procedure of the Australian S.A.S., i.e. to begin with easy, inconspicuous stages, the British and American societies propose a completely simplified spelling resulting in disagreement and indecision with the ultimate result that the proposed simplified spelling has been postponed agen and agen since 1908. That's why I thought the opinion of a foreign spelling-simplifier and English professor would be of some use, and which I wrote in the enclosed article. I presume meny English simplifiers will not agree, but my opinion would result in a start agen after 65 years (1908-1974).

From the outset it should be made clear that 'Flemish' is a geographical term meaning: belonging to the Flemish part of Belgium, i.e. the northern half of Belgium, where Dutch is spoken, in contrast to the southern half of Belgium, where French is spoken.

The simplification of English spelling is a difficult problem'. Why?

1) English has a heterographic-conservative spelling, contrary to Dutch, which has an evolving spelling, i.e. regularly adapted to Dutch speech. Dutch spelling was simplified in 1804 (Siegenbeek), in 1864 (De Vries-Te Winkel), and in 1934 (Marchant), i.e. approximately every 60 years. In the Netherlands, i.e. Holland and Flanders, it has thus become a tradition to simplify spelling by bringing it closer to current Dutch speech. Consequently the simplification of conservative English spelling will be extremely difficult and delicate, because English speaking peoples are not used to changing spelling types.

2) English is a language used in almost every country in the world, either as a native language, or as a first foreign language intensively studied at school. This situation implies that the simplification of English spelling is an international problem. Therefore English speaking countries should preferably agree to simplifying proposals, especially where drastic or radical simplifications would be concerned. Therefore the spelling-reform societies of Great Britain, Australia, and the U.S.A. should contact each other in order to learn each other's opinions and even to agree on simplifying proposals and procedures. If they cannot come to an agreement, inconspicuous simplifications might be introduced and the results awaited. This is the trend of the Australian Spelling Action Soc.

If these changes are accepted, spelling reform might be continued with regular inconspicuous changes.

3) English has become a world language despite its freakish and intricate spelling. This is true for English as a spoken and red language. But when English is to be written, meny difficulties arise for native English speakers as well as for foreigners, in spite of the numerous hours spent on teaching historical English spelling.

The procedure or plan of action for the introduction of spelling simplifications is of paramount importance. Two trends prevail: either a drastic reform, i.e. completely adapted to speech, or successive inconspicuous changes. If the latter is applied in countries with loose spelling such as the Netherlands, Norway, or Italy, then such a trend would *a fortiori* apply to countries with an historical and conservative spelling such as France or the English speaking countries. Spelling reforms should moreover be considered with regard to the ordinary man and not to the academic. Drastic S.R.'s would estrange English speakers from their own spelling, and it would require too much effort to acquire. Consequently it would not be generally adopted.

This is why the Dutch S.R. procedure deserves particular attention, i.e. gradual easy simplification at regular intervals.

The first inconspicuous simplification of English spelling should moreover be a test: as soon as this test proves to be a success, i.e. is redily accepted by the common English speaker (and writer), further inconspicuous simplifications can follow. The first spelling reform (SR1) should obviously be the easiest and least conspicuous, i.e. uniform spelling for the short-*e* sound as in *bet,* i.e. the spelling *e* covering the present spellings *e* (get), and replacing *ea* (head), *a* (any), *ai* (again), *ei* (heifer), *eo* (leopard), *ie* (friend), and *u* (bury), as is suggested by the Australian Spelling Action Society. After a number of such easy changes the English speaker is used to the simplifying procedure and is likely to accept more difficult spelling simplifications, such as the long *ee* (feel), long *o* (law), long *oo* (soon), etc. In this way the English speaker (reader and writer) would have gradually undergone spelling simplifications, which he will after all have found natural and evident as they are much easier to apply. Look at decimalization in England where fast the British coinage was decimalized. This will undoubtedly be followed by other decimalizations as soon as the users witness the beneficial results: measures of length (metre), surface (square metre), weight (kilogram), capacity (litres insted of gallons), the simultaneous introduction of which would have been unimaginable and even practically impossible.

This gradual procedure will naturally result in the objections of publishers, because new editions of a book will need to be printed in the more advanced simplified spelling. However, as the simplifications are so inconspicuous, the reader is not likely to be at a loss. This minor drawback does not apply to the numerous English newspapers and periodicals where the real spelling battle will be fought.

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7. Néos – a magazine devoted to reforming French spelling, translated by Ivor Darreg

The system of reformed French spelling used in the quarterly journal *Néos*, from which the following excerpts have been taken and translated is quite close to the respelling used to indicate pronunciation in the famous *Petit Larousse* French dictionary. It is not radical. It might be compared with World English or some similar system. In particular, the digraphs *ou, eu, ch, oi*, the sounds of which cannot be inferred from their components, are retained. It represents an ultra-careful style of pronunciation, such as might be used in declaiming poetry on the stage. or in singing.

Why should English-speaking readers be interested in French spelling? The main reason is that nearly half the English vocabulary is derived from French, or has been influenced by French to some degree. Our English spelling would never have been the horrid chaotic mess it is today if the Norman Conquest of 1066 and other French influences continuing through the 14th century had not introduced this incredible influx of new words. The influence was so profound that it actually knocked several badly-needed letters out of the Anglo-Saxon alphabet. Furthermore it caused endless confusion between the radically different French and Anglo-Saxon methods of representing certain sounds.

Another reason is that French is practically the only other language in Europe that needs spelling reform; all the others have at times made theirs more nearly phonetic and now have fairly good systems: even German or Italian need only minor alterations, while such languages as Finnish and Serbo-Croatian must be rated as excellent. This means that French- and English-speakers might do very well to co-operate and interchange ideas about spelling reform, and encourage each other's progress. On this side of the Atlantic, the use of both French and English in Canada should not be forgotten.
Perhaps the co-operative effort could be started there.

Translated from the Néo French:
Néo, issue no. 69. Tan. Feb. Mar. 1973.
The following quotes are on the mast-head:
"Write as you speak, and read as it is written." Karadžić. (Vuk Karadžić was one of the most important spelling reformers of all times; he modified the Cyrillic alphabet for Serbo-Croatian.)

"Writing is the painting of the voice: the more it resembles speech, the better it is." Voltaire.

"To correct the spelling of a language is not to injure it; it is to rid it of an evil that corrodes it." J. Vendryès. (linguist).

"Just as in politics, it is the absence of reform which brings on the revolution." André Porquet (Researcher for C.N.R.S.)

The Program: Sustained application of the Rational Orthography.

Address: Néo á L'étoile Verte; Avenue de la Libération, 06130, Grasse, FRANCE.

Quotation from Roger L'Allemand, Instructor at L'École Moderne: Our motto: "Not a single useless letter.". . At present, one avoids burdens, useless complications, every waste of time. The most complicated machines do not include a single useless part. But we shudder at the abundance of useless letters in our ordinary spelling, put there in the name of History! It is as though an auto's engine were compelled to include horse-bones and horse-hair to remind us of that historical 'motor,' the horse."

"The intricate structure, the 'magnificent edifice,' which French orthography appears to be in the eyes of the traditionalist, which is only the outer garment of our language, does not have a parallel in the majority of other existing languages. Only French and English 'enjoy' this so-called privilege." Other languages do not need such orthographies to possess literatures. Does not spoken French allow of eloquence? of poetry? of song? The many phonetic writing-systems have proven that the transmission of thought can still be faithful. In the 13th century French was fairly phonetically written and even then was called 'beautiful'."

Quotation from Dr. Alfred Manseau (Veterinary): "Thought is better expressed when it is helped by writing. Phonetic orthography permits one to dispense with the dictionary. A simplified spelling would permit a man to save a year of his working life, and would allow the French nation to save billions of francs annually, figuring a 15-minute per day saving for 50 years. To abbreviate writing is to prolong life. Let us save our time: that's what life is made of."

Quotation from Jean-Marc Laurin (Honorary Officer; Writer on Sociology, Biopsychologist): *The Nefarious Influence of Cacography upon Intelligence.* "When a child reads, he must inhibit each conditioned reflex which has been installed by normal spellings, each time he encounters an irrational letter-combination. The mental task is thus rendered difficult by the conflict of opposing nervous processes."

Scientific examination shows that orthography is not, despite the grammarians, 'the art of writing a language correctly,' but instead is the art of transforming a means of communication into a system for dulling minds, probably instituted for the benefit of those who *profit* from human stupidity.

The reasons given for ordinary spelling: etymology (often ultrafantastic), early pronunciations, pleasant appearance to the eye, simply do not survive scrutiny."

De-Polluting our Spelling
No, not quite. For us, no question as yet of imposing our Rational Orthography upon others. We are not *that* pretentious. The fetishist French Academy and the indifferent public authorities are not of a mind to listen to the voice of our minority. But it is very often the minorities who are in the right, and their utopias become realities. At present, our ambitions are limited to a continual confrontation of the orthocacography of the snobish pedants with our Rational Orthography; supplying proof of our system's perfect feasibility; seeking a favorable attitude on the part of sensible people, because of Rational Orthography's logical and rational simplicity; and at the same time giving ourselves the deserved pleasure of using it.

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Néos (name changed probably to avoid collision with an international auxilliary language called *Néo*), issue no. 70, April, May, June, 1973.

Editorial
"Do you think you will succeed?"

Here is a question that will sometimes be posed in a rather ironic tone. It may express an attitude of incredulity, or it may denote resignation or apathy – or narrow-mindedness. Sometimes it expresses a sectarian viewpoint, because of a 'cultural' issue stemming from the pedant's consciousness of his social standing. In any event, it conveys defeatism. Obviously, in order to succeed, one must not become entangled in the impasse of doubt. That would be stupid.

What is necessary is to establish within oneself an attitude of intelligent understanding and of aspiration toward scientific and moral progress. This is the real concern. Our readers' comments will prove this. Those of good intentions should attain within themselves that which they expect of others in turn. Without effort there is no satisfaction – the reward is proportional to the trouble we take. We wish to get rid of the superstitious mysticism of orthographic dogma, and to replace it with the confidence coming from united effort among friends, our will being fortified by logic and reason, which being on our side will give us strength. Our truth is objective, not subjective nor "revealed."

It is necessary to succeed in awakening, convincing, and then enlisting our neighbors, not only through verbal persuasion, but also through the demonstrated ease of adapting to a new spelling intended for the public. And in this, with our Rational Orthography, we do not just believe, but we have the certainty of success, for the majority of our fellow-citizens and French-speakers can read and understand our spelling very quickly, without having to learn the specific code underlying our system, without even knowing of our existence. They warmly approve our rationalist action – the initial surprise passes and they are attracted by this ease of comprehension. It remains for us to hope that convinced, resolute, and active advocates will become more and more numerous in our ranks, that they will eliminate discouraging doubts, and finally the affair will snowball, till it becomes a veritable avalanche. This is the 'revolution' which we can accomplish.

As for obtaining any results more quickly by the approbation of the fetish 'immortals' (of the French Academy) who are so narrowminded, or through appeal to the public authorities directly, it has been established for quite a long time that there is no hope of success that way under any conditions whatsoever: the tiniest mini-reform would never get by. It still wouldn't succeed even if it were worked out by a Commission of the Ministry of Instruction composed of the most eminent scholars, nominated by the public authorities. There have been too many such attempts already; the same sad results have been seen many times in the past. To succeed we must have recourse to ourselves; we must succeed by the strength of numbers, aroused, resolute, growing, persisting in our union, with the end in view of obtaining general use of our idea, and this idea is not a mere mini-reform, but is a Rational Orthography. We have to shame our snobbish opponents.. . .

And why not a revolution through our Rational Orthography? Have not the fantastic utopias of Jules Verne been realized? Is human stupidity more difficult to conquer than is interstellar space? Are we to forsee a future of helplessly gnashing our teeth? Is *that* all our young people have to look forward to?

Let the young people roll up their sleeves, not just for competitive spats, but for something more intellectual, for the liberation of the mind, for social reform, for a future world of peace and happiness. Let us, the older ones, help them along this path, If modernizing an older language doesn't mean anything to you, then go on to an international language which is so very necessary.

It is a shame that we have to lose so much space and time continually repeating the same wishes, the same matters. We hope that our special issue, 'Justification and Initiation of *Néos*,' will supply bonafide answers to the various questions which come up, whether they be absurd or serious.

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Simplification of Orthography in China, by Roger L'Allemand

When I met with the President of the Alphabetization Commission in (mainland) China, I had some knowledge of an alphabet allowing the Chinese language to be written in Latin letters in a phonetic manner, and, *before* official action was instituted, alphabetization attempts had been tried out on a fairly large scale. Some publications had appeared in Chinese, using the Latin alphabet. This was in 1957. In the following year, the project, slightly modified, was approved by the National Assembly. Why has it not gone into general use? – Because in order to write phonetically, one has to have a *speaking* knowledge of North (Mandarin) Chinese, spoken in a considerable portion of the country, and designated as the official spoken tongue. However, the minorities, and particularly the Southern Chinese, can understand the written characters, but cannot understand the spoken Mandarin. Thus the characters remain necessary because the spoken language has not been unified. Here, nevertheless, the phonetic alphabet can play an important role: indicating to the minorities how the official spoken Chinese is to be pronounced.

These difficulties will not prevent an attempt to simplify the characters themselves, while hoping for something better later. Since 1955, 1055 characters have been superseded because they were superflous. In 1958, 515 characters in common use were simplified: instead of an average of 16.08 strokes being required to write each character, only 8.16 strokes per character are now needed on the average.

While alphabetization is the final object of these reforms, a very long transition period is going to be required. However, there are numerous inscriptions in the characters, with an alphabetic transcription underneath. Already, the phonetic alphabet is used to help children understand and learn the characters.

Sometimes I'm told, "We shall never arrive at a phonetic French spelling: our orthography is much too complicated." But the situation in China, where the characters present a complexity unparalleled in our writing, shows that the problem lies elsewhere. It is really a political question: Whether to reform for the people's sake, or to keep the traditional orthography in order better to dominate them. (Keep them semi-literate)

Let each one, according to his convictions, draw the consequences which follow from this, and in any case, act to reinforce the current of opinion among the ordinary people and also among some linguists. Because the orthographical confusion will become impossible, some-day the reform will have to take effect.

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C.N.R.S.

This abbreviation stands for "Centre National de Recherches Scientifiques" (National Center for Scientific Researches). This is an eloquent title, and this particular Center has actually added orthography to its program of studies, since January, 1973 – which is good news. Any effort to demystifying the public, however slight this may be, and against dogma in spelling and the 'superstition' that comes from it, is to be commended and to be encouraged. All the more when a prestigious scientific institution becomes involved. Group 113 of the CNRS will contribute notably toward such demystification. Whoever says 'science,' refers to the search for the truth by means of logic and reason. While the brakes may be applied in a group, this will not stop progress.

I am acquainted with some of the participants: A. Martinet, who may have some bizarre phonological ideas, but who certainly is determined and arouses the conscience. M. A. Porquet whom I have often read, and who appears to me from his writings quite intent on demystifying our fellow-citizens. M. Thimonnier, who appears to be steering a proper course. No doubt some of those who had little to say or kept silent will have agreeable surprises for us later on. Then there is Mme. N. Catach, in her role of Director of Research, with her quick responses and judicious initiative. She asked her Group 113: "Do we know how to avoid the dogmatic or even passionate attitude which has been seen up to the present in matters of orthography? I hope and I believe that there is no reason why orthography, like any other field, cannot be the object of scientific studies."

It is my hope that future round-table discussions will be more audacious and decisive. This first discussion seemed restrained and timid. There was a fear that a new way of writing might shock someone. The principle seemed to be that one must adopt only the minimum reform, so that it might stand a chance of passage. But passage *where?* Doubtless where all the previous proposals have gone – moderated and toned down by the appointed commissions, by those who would merely legalize the future work of their descendants. Evidently, what is foreseen is a succession of tiny reforms by each future generation – *if* they haven't forgotten. One little relaxation of the rules at a time, by the gracious leave of the powerful 'Group of Publishers.'

Altho our Rational Orthography is not a radical revolution such as was the Turkish alphabet reform, does not our proposal merely show the way which must be followed for at least three or four centuries? Many fear that this has to be answered in the affirmative. Hopefully, we shall not have to be witnesses of such an irritatingly slow journey. – B. N.

Round Table on Spelling, by Roger L'Allemand

Organized by Group 113 of C.N.R.S., this took place in January, 1973 in Paris. And we were informed of this through a report 113 pages long. (any significance?) However, we did not find, alas! any hope for action in the action in the sense of a serious reform based on practical considerations.

A real simplification? Not at all! One argument of the adversaries stood out: The pronunciation of French differs according to the region of the country. Do they maintain that, in other countries that have a phonetic spelling, their language's pronunciation does *not* vary according to the district of the country?

M. Goose and Nina Catach (organizer of the Round Table) attach importance to the fact that the present misleading spelling, at the cost of its senseless complication, 'transcends dialectal differences' or 'maintains a uniform appearance of the grammatical paradigms' (Hm!) M. Martinet then observed, "If you have read my books you will have seen that one can arrive at an average French pronunciation." M. Jung said, "it seems (isn't this scientific enough?) useful to conserve the graphic forms of roots in order to make evident the grammatical and lexicological unity of words." A. Cherval, at the Congress of Aix (École Moderne) has shown us that traditional grammar contains inexactitudes which have come to justify irrational spelling. Must all writers, orators, and students *feel* this 'unity of the roots of words?' This is just a silly distraction! Mme. N. Catach then showed a table which indicated how the 36 phonemes in French were rendered by 26 letters (and six diacritical marks). This table was quite clear. But how can it be made evident that regional pronunciations would exert a definite influence? The author was well aware of proceeding on the basis of an individual pronunciation!

Which has priority: spoken language or written language? G. Bonfante believes that a phonemic system "would be difficult to apply to French in any rigorous fashion" (what a thing to say!) "for the reason given by Mme. Catach: 'The orthography is not only the projection of the spoken language; it is also the projection of one's thoughts.'" But is not spoken language the projection of one's thoughts? When we speak and when we are listening to someone, do we have to think of every word in its conventionally-spelled form? Are the so-called "poor spellers" incapable of expressing themselves with finesse? On the contrary: when we read a text, even though it be in conventional spelling, *we think phonetically; in the spoken language.*

[Some instances where French orthography actually allows letters to be inserted which are pronounced, but which have no etymological justification, were then discussed. There isn't any really comparable phenomenon in English, unless we were permitted to cite the 'substandard' form *ain't,* where the *i* in the spelling clues the reader in on the pronunciation of the word, but this *i* has no etymological precedent. If some English spelling reformer were bold enough (would any of you actually dare to do this?), he might reform the spellings of *athlete, athletic* into *athuleet, athulettik,* as many people actually pronounce these words, despite the Herculean efforts of generations of school-teachers. In this one respect at least, French orthography is sensible and realistic, inserting a *t* in such forms as *va-t-en-guerre, aime-t-il?* One French grammar we saw years ago had the picturesque expression: "*T* is stolen from the alphabet to make such words sound better." --- Translator's note.]

Discussion then resumed on the subject of silent consonants. To those who invoked various theoretical reasons why they should be kept, we answered: If such silent letters were of such real consequence, we should have to restore them to many words now written without them, as: *abrit, amict, clout,* etc. . . [Note that English spelling has kept some silent letters of this sort: *indict, doubt, debt* (where French now spells: *doute, dette*), etc.

The conclusion of this Round Table was that it was necessary to agree upon some general principles (p. 107 of the Report) aiming toward a limited reform. (Limited to what?) R. L.

The Possibility of Reform

Mme. N. Catach declared: "The experience of the past and of foreign countries proves that only a limited reform of spelling has any chance of success." Why can't we do better in the future than we did in the past? This has been the case in many other domains. The examples adduced from foreign

countries only prove that where their orthographies are better than the French, they made them better by working hard on their problems! Altho the Chinese of the Southern Provinces cannot understand those from the North without help from the characters, they adopted a slightly-modified Latin alphabet for indicating the official pronunciation of these characters! Note also that the Turks made a drastic change from the Arabic alphabet to the Latin alphabet.

. . . N. Catach, Thimonnier, M. Pohl, and E. Jung spoke of the opposition of publishers, despite the well-known fact that they publish books on modern mathematics which require numerous extra type-characters. Then how can publishers complain about new letters required for a reformed spelling? . . Still another obstacle: Public opinion. Doubtless the opinion of intellectuals, rather than that of labor or youth. Decaux remarked: "when questions of spelling arise, one always asks the advice of expert spellers – those very persons for whom a reform would be catastrophic. One never asks children for their opinions about spelling!" But why let it be supposed that the new orthography will immediately be imposed on everybody? Why fear that the existing stock of books is not going to be saleable? No one would be forbidden to continue his old reading and spelling habits, any more than one is now forbidden to experiment with our new popular orthography. We cannot depend on a step-by-step process of reform, taking we wouldn't know how many years to effect. Rather, there should be a simplified spelling applied all at once in the primary grades, and its users would grow up with it. The spelling would thus be changed in one grade each year.

However, there is much favorable opinion! The Commission of the École Moderne has published such opinions in its bulletin. *Néos*plans a more complete special number later. There are tendencies elsewhere for simplification, and not only among publicity-agents seeking something distinctive. Given names become simplified: from Simonne to Simone, from Michelle to Michele, from Jeannot to Janot.

Indeed, it will take a veritable Cultural Revolution to achieve our purpose. This is yet another reason for coming to the aid of the victims of school examinations (failures due to poor spelling), young people and manual workers. The C.N.R.S. report did not end too well; Mme. N. Catach said: "It remains for me to thank you and to hope that we shall meet again in a few years(!) with a new set of discoveries, and to thank you again in my own name, as well as those of our Group and of the CNRS."

In another report, there was a question of problems in teaching traditional orthography. I shall not speak of that here – no point whatever encouraging such instruction! R.L.

Translator's Note:
[Two terms are found in the original French which might be of interest to American spelling reformers and could be adapted into English in several ways.

The traditional French spelling is criticized by calling it "orthofouille," pronounced or-to-*fooey*, and meaning something like "confused writing" or "approved confusion."

In several places the terms "aristographe" and "aristographique" are used. These are Greek-derived and might be anglicized as aristographer, aristography, and aristographic. This is the same root as aristocracy, so the meaning is "intellectual snobbery" or using the traditional spelling as a kind of hypocritical ceremonious affected badge of fake nobility to intimidate ordinary people.

Looking up spelling reform in one of the French encyclopedias, we find a brief paragraph to the effect that it will never, never happen so don't even think about it. The tone of this article is unbelievably pessimistic.]

Neos, Issue No. 72, Oct, Nov. Dec. 1973.

Teaching of *Néos*

The quotations (as you will soon notice) allow us to contend that teachers, and especially schoolmasters, form the majority of warm advocates of a reform such as the Popular O.R. (Reformed Orthography). "there is nothing astonishing about that, when one thinks of the evil that results from inculcating an illogical orthography upon the children entrusted to their care." (Ernest Kahane) "And that to the detriment of culture in general:". ."The youth of today have a dread of obscurities and would like to understand. In this attempt they are rebuked by the orthography: it is not so much its difficulty, as in that it is too often irrational, ornamented with assorted bits of nonsense." (Albert Dauzat)

Less numerous are the teachers who advocate an orthography known as 'integral phonetics' (i.e. 'parodying,' because of the inertia of typewriters and typesetting machines) the linguists' International Phonetic Alphabet. Indubitably they are the most rational, but alas! definitely too revolutionary for the present time. It remains up to them to prove the contrary.

In any case, there remain not a few who would like, in their capacity as educators, to show that they could contribute to the rupture of the 'vicious circle' of 'fetishism' which ruins our orthography. There is a matter of educating the masses, whose energies are being drained, stupefied, annihilated, if not also detoured from logic and reason. . . Such is also the case for any social undertaking – but that, of course, is another story. 'In spelling as in politics, the lack of reform provokes a revolution: (André Pourquet) 'Since the 1800's, spelling has become a kind of superstition,'. . .'and for the common herd, who accord it undue respect, it is sacrilegious to attack the Idol.' (Jacques Damourette)

If our educators were willing to take the trouble, they could expel the orthographic superstition from pupils' minds by malting the students familiar with a phonetic writing, and show the parents that it was perfectly viable and its cultural role corresponded with the logic of reality.

Educational experiments have actually been conducted with this result. They have been undertaken rather timidly in France with the aid of shorthand systems: Duploiyé, Phusys, Aimé-Paris. At present, in England, Pitman's I.T.A. has given excellent results, right in the early stages which are thus accelerated. Passage from i.t.a. to T.O. is easy. The children actually undergoing the experiment seem 'brighter' than the controls.

Accordingly we would wish that French educators who are denouncing the traditional orthography would emulate their English counterparts. One might even do better in French using the O.R. – an orthography which could immediately be used in everyday life. One could gain the sympathy of adolescents; and adults, of the parents who also be afforded a mental emancipation favorable to initiative and to developing their minds. Such was what was in the mind of M. Porquet in *Parent's Review*, 'For the Child – Toward the Adult.'

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8. Our Readers Write

re: "In English, aspiration is not phonemic."?

Dr. Emmett A. Betts,   **by Vic Paulsen**
University of Miami,
Coral Gables, Fla.,

Dear Emmett:

On page eleven of the Winter, 1974 issue of the S.P.B., you have made this unqualified statement, "In English, aspiration is not phonemic." This is incorrect.

I have listed below, for your reference, a number of words differing in pronunciation only by aspiration, but having completely different meanings:

add	had	earl	hurl	ill	hill
aft	haft	eddy	heady	itch	hitch
air	hair	eel	heel	oaks	hoax
ale	hail	Ellen	Helen	ohm	home
and	hand	elm	helm	old	hold
art	heart	Evan	heaven	or	hoar
axe	hacks	eye	high	owl	howl

With regard to the use of the term "schwa" to describe a *stressed* sound: Schwa (Sheva) is a valid Hebrew word with a meaning that is perfectly clear. Schwa indicates lack of, or diminution of, positive value. The "turned e" was arrived at during the chapter of linguistic change (in English) which saw those final inflections represented by the letter "e" gradually lose positive character value en route to their total disappearance. The "e" was said to have become "servile," and was therefore turned upside down.

The use of the name "schwa" and the "turned e" symbol to represent a stressed sound is a gaucherie. If, as you allege, this usage is "rapidly increasing," I'm not impressed. Illiteracy is also on the increase, and I'm sure that if the dynamic, well-financed advocacies of the Educational Establishment had not been checked during the last 2000 years, those few of us who could write would be doing it exclusively in Latin.

Best wishes, Vic Paulsen, Box 297, San Francisco, Ca.

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Phoneme /h/ and letter *h*

Dear Vic: **by Emmett Albert Betts**

You are right. On page 11, column 2, lines 21 and 22, "Reading: Phonemic Basis of Word Perception," S.P.B. Winter, 1973, 1 made this statement: "In English, aspiration is not phonemic." This statement, of course, applied only to the content of the paragraph in which it was embedded – a superb example of inability to communicate.

Here are some statements that may be made regarding phoneme /h/:

1. In the words *hot, hay,* etc. phoneme /h/ occurs as a separate phoneme, although it is *phonetically* (not phonemically) similar to the aspiration of *p* in *pin.*

2. The phonemic /h/, as in *heat, is* not to be equated with the nonphonemic aspiration, as in *pet;* however, this point needs further clarification by Kenneth L. Pike and other prominent scholars.

3. Phoneme /h/ has been called a "chamelion" sound because it takes on the "color" of its phonetic environment and has no *fixed* mouth position. In fact, phoneme /h/ has been classified as "Laryngeal Modification of Vowels."

4. Phoneme /h/ is classified as a voiceless, glottal fricative.

5. Generally aspirates, or spirants, are breathed sounds. In a narrow phonetic sense, aspirates in English are: /p/, /t/, /k/, having *strong* aspiration versus the voiced analogues /b/, /d/, /g/ having weak aspiration.

6. When /h/ is pronounced (phonemic), the articulators, especially lips and tongue, are in the position of the following sound as in *hat, he, hit, hot.* That is, the articulatory mechanism is pre-set for the following vowel.

7. When /h/ is between two vowels, as in *perhaps, behold, behest, behave,* it is frequently voiced. (This voiced allophone is represented in I.P.A. by /ɦ/.)

8. Phoneme /h/ is often deleted before unstressed vowels, as in *vehement, vehicle, prohibition.*

9. Phoneme /h/ usually begins a syllable and seldom ends one.

10. The letter *h* represents no sound in *hour, honest, honor, heir, coug(h), throug(h), shep(h)erd.* The former practice of "silent" *h* in *humor* /ˈhyu-mər/ and *humble* /ˈhəm-bəl/ is waning in usage.

11. Phoneme /h / is spelled *h* in *how,* and *wh* in *who.*

12. Letter *h is* a part of an orthographic cluster representing other sounds, as in *thin* and *then.*

13. In Old English the pronunciation of *when* and *what* was suggested by the spelling, but /wh/ has now become /hw / and, therefore is an anomaly. This /hw/ sound is sometimes symbolized in phonetics as /ʍ /.

(Note of Thanks: The need to write the above explanation was initiated by Vic Paulsen, a friend, indeed, of spelling reform.)

Emmett Albert Betts, Research Prof., Reading Research Lab., Univ. of Miami, Coral Gables, Fla.

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Experimental teaching system

Dear Newell: **Barnett Russell, M.D.**

I wish to make a few comments about your Winter issue of SPB. The schwa (I use the apostrophe) is an excell'nt d'vice for simpl'fying spelling of diff'cult words. It would solve my probl'm with such words as correspond'nce (ance, ence?).

The article by Venezky confirms my belief that the rules of traditional phonics can be retained in a reform of spelling.

It is relatively easy to create a phonetic system of spelling, but it is extremely difficult to get one adopted. Your present Bulletin has little to offer to a congressman who might pick up a copy, and it contains no unanimity of opinions on any one system. My idea is this: the *i.t.a.* got itself into the school system probably by offering an experimental method and system. Why not now push the legislators to experimentally introduce the World English Spelling system into a group of progressive schools and then compare the end results upon conversion to T.O.?

These results compared with the results with i.t.a. should confirm what spelling reformers already know, and offer some advantages. One advantage WES has is that it can be used on any typewriter and by any printer. Another advantage WES might have is that it would be more acceptable to the parents of the school children than the present *i.t.a.* system appears to be. The conversion to T.O. from WES is no doubt more likely to show better results than *i.t.a.* If we can therefore get the WES system into the schools experimentally, we may have found the way to the minds of our congressmen, if not of the present, at least of the future, because some of these parents of WES children may become congressmen some day.

Sincerely, Bart. Russell, Plainview, N.Y.

Ed. comment: Your idea of ' for schwa is excellent – It is a natural extension of the same use in: didn't, doesn't, don't, isn't, so it should easily be understood and accepted.