

Spelling Progress Bulletin Summer 1983

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

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Editor and General Manager,
Newell W. Tune,
5848 Alcove Ave,
No. Hollywood, Calif. 91607

Assistant Editor,
Harvie Barnard,
219 Tacoma Ave,
Tacoma, WA, 98403

Editorial Board: Harvie Barnard, Emmett A. Betts, John Downing, Wilbur J. Kupfrian, Ben D. Wood, Valerie Yule.

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1. Announcement of Meeting

Special Interest Group, Reading: Orthography and Word Perception International Reading Assoc., 28th An. Convention, May 3rd 1983, at Anaheim, Ca, Marriott Hotel, 1:00 P.M. to 3:45 P.M.
Program Organizer: Dr. Emmett, A. Betts, Prof. Emeritus, Univ. of Miami, Winter Haven, Fla.
Chair: Dr. Lou Burmeister, The Univ. of Texas at El Person Paso.

Topic: Word Perception: Orthographic and Psychological Bases (Demonstration with children)

Panel:

Dr. Walter B. Barbe, Editor-in-Chief, Zaner-Bloser, Inc.

Dr. Emmett. A. Betts, Univ. of Miami.

Dr. Katherine P. Betts, Florida Southern College

Dr. Richard Culyer, Coker College.

Dr. Patrick Groff, San Diego State Univ.

Dr. Betty Roe, Tennessee Tech. Univ.

Dr. Robert Trammell, Florida Atlantic Univ.

Topic: Visual and Auditory Readiness for Reading: Informal Assessment and Training Techniques (Demonstration with children)

Participants: All participants are Vision Specialists from the State of California.

Beth Ballinger, O.D, Newport Beach, Calif.

G. N. Getman, O.D., Irvine, CA.

Homer Hendrickson, O.D., Temple City, CA.

Richard Hopping, O.D., Pres. So. Calif College of Optometry, Fullerton, CA.

Philip Mishenko, O.D., La Habra Heights, CA.

Charles W. McQuarrie, O.D., Lancaster, CA.

Richard Skay, O.D., Pomay, CA.

2. Book Review by Newell W. Tune

Morrison, Marvin, Editor. *Word City* – a new language tool. Pub. by Pilot Light, P.O. Box 305, Stone Mountain, GA. 30086. \$4.95, pp. 353. 1981-2

Teachers often say, "Look it up in the dictionary," but how can you look it up if you don't have any idea of how to start its spelling? Quite a few words start with a silent letter or a vowel (which may be unreliable) but the pupil has heard the pronunciation, so that is an important clue for finding the word. This dictionary is based on the principle that the consonant letters in words are generally reliable as to pronunciation. Hence this dictionary lists words according to their consonant sounds. A pronunciation key is provided at the bottom of each page covering the consonant sounds on that page. By reading the key to consonant symbols and paying close attention to how sounds relate to their symbols, you will quickly learn the knack of finding a word's address – the name for these consonant abbreviations. This idea was borrowed from the Phoenician syllabary and modified to our use.

The author, while studying phonetics at Tocca Falls College and Dallas Theological Seminary, saw the need for this type of student aid.

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**3. Reading: Orthography and Word Perception, by Katherine P. Betts, Ph. D.
A Report of this Special Interest Group of the International Reading Assoc.
at Chicago, April, 1982.**

During the 27th Annual Convention of the IRA in Chicago, April 29, 1982, the second meeting of the Special Interest Group "Reading: Orthography and Word Perception" was held to continue the activities of previously co-sponsored sessions by the Phonemic Spelling Council. The theme – "Reading Levels, Word Perception, Comprehension" was highlighted by a demonstration with children conducted by Dr. Emmett A. Betts, organizer of this group. The children's participation was coordinated by Dr. Josephine Wolfe and supported by their teachers. The panelists – Dr. Paul Berg, Joseph Frown, Dr. Lou Burmeister, Dr. Walter Barbe, Dr. Earl Cheek, Dr. H. Ward Ewalt, Jr., Dr. George Mason, Dr. Betty Roe, Dr. Robert Trammel – served as resource persons to respond to questions addressed by the conferees during and after the demonstration.

Newell W. Tune, Editor, *Spelling Progress Bulletin*, contributed to the wealth of materials for the conferees by publishing a special issue, Summer 1982, containing Position Papers and articles by group members and panelists available to subscribers. He also provided reprints of questions to stimulate discussion. Conferees were given copies of the informal reading inventory used in the demonstration and reports for the previous year.

Dr. Katherine P. Betts was the general chairperson for the session. Dr. Jack Haynes chaired the business meeting, and Dr. Earl Cheek was the chairperson for the nominating committee. Officers elected for the 1982-83 academic year are: Dr. Katherine P. Betts, president; Dr. Walter Barbe, 1st vice-president; Dr. Betty Roe, 2nd vice-president; Dr. Jack Haynes, secretary/treasurer.

Five children – four girls, one boy (three, 4th grade; one, 5th grade; one, 6th grade) – participated in Dr. Emmett Betts' demonstration, facilitating the illustrating and development of several points:

1. Children at any age or grade level represent a substantial range of reading achievement. For example, in the intermediate grades, they include those with word perception needs at preprimer levels and those able to read encyclopedias (approximately 12th grade levels) about a topic that interests them. All children, including superior readers, have instructional needs.
2. Orthography, word perception, comprehension, and motivation are inextricably related. To begin with, we must recognize what motivates children, what does and can interest them. We do not motivate them, but we can capture their motivations. Next, word-perception needs interfere with comprehension. Having one mind, the reader cannot attend both to analyzing the words and to understanding what he reads; word perception skills are used automatically, freeing the mind for cognitive processing (meaning). Orthographic factors (e.g., consistently spelled vs. irregularly spelled words, *sat-ran-cat* vs. *you-of-one*) must be considered in assessing and teaching word-perception skills.

3. Although the IRI (informal reading inventory) has been used for several decades, much confusion and controversy regarding *criteria* for reading levels and their validity remain. The rationale for the IRI springs from that of mastery learning – that word-perception and other learning needs at lower-reading levels compound difficulties for the child at higher-reading levels. In other words, symptoms of reading difficulties (behaviors) override statistical criteria. Next, the instructional-reading level is temporary. The purpose of each directed-reading activity is to raise pupil achievement from the instructional (teaching) reading level to the independent (free) reading level. Thus, the pupil progresses at each succeeding readability level.

Dr. Betts did not have time for a comprehensive assessment of all children. He did, however, demonstrate with all of them informal techniques for assessment of visual efficiency – convergence, rotation, phorias. This facet of the demonstration elicited many questions from the conferees for our consultant on vision, Dr. H. Ward Ewalt, Jr.

Dr. Betts explored in some depth word-perception needs revealed by the children and demonstrated techniques for teaching both word-perception and comprehension. He illustrated a concept-formation task with a superior student (with no apparent word-perception problems) who then became engrossed in reading the *World Book Encyclopedia* for more information about the subject.

Children's word-perception errors were preceded by a *loss of syntactic cues*; e.g., meaningless intonation. Errors were classified into three types:

1. Irregularly spelled words (e.g., *one*)
2. Function words (i.e., words having a syntactic rather than referential meanings)
3. Polysyllables.

Questions from the conferees, in addition to the assessment of visual efficiency, were addressed to visual training, English phonemes, techniques for instructing pupils with learning disabilities, and the requests for another demonstration at the next convention in Anaheim, May 2-6, 1983.

Five chairpersons of committees have been appointed to date:

Dr. H. Ward Ewalt, Jr., Vision

Dr. Robert Trammell, Linguistics; Editor the ROWP *Newsletter*

Newell W. Tune, Editor, *Spelling Progress Bulletin*

Dr. Betty Roe, Research

Dr. Josephine Wolfe, Organization

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4. Word Perception is More Than Phonics, by Emmett A. Betts. Ph.D.*

* Winter Haven, FL.

The teacher who helps a pupil discover the relationship between the sounds of speech and the letters and punctuation used to represent that speech is developing phonics skills.

When you help a pupil discover how words function in a sentence (grammatical meaning), you bring phonics to a higher level of effectiveness.

When pupils are helped to relate words to relevant dictionary meanings, phonics is elevated to word perception skills.

Word-perception skills, one hallmark of today's reading instruction, need to be developed at all grade levels.

Reading: A Thinking Process

Basically, reading is a thinking process resulting in comprehension and formation of concepts. Word perception is a constellation of skills that serve this ultimate purpose.

Word-perception skills need to be developed so that pupils can practice these skills *automatically* during the reading act. This automatic use of skills frees the pupil's mind for thinking about what he reads.

Primacy of Speech

Speech is basic to both word perception and comprehension. When you base reading instruction on the primacy of the spoken word, you consider how a word or phrase is *said* before you teach the letter groupings representing that word.

The *intonation* or melody of speech is also important in word perception and in comprehension. For example, the spoken word *can* is stressed in *a can of apples*, but it is unstressed (and shortened to /kən/) in *I can do it*.

In reading, the process (word perception and interpretation of intonation) and product (comprehension) can't be separated.

Phonics is One Part of Word Perception

Achievement in reading has come to be more than the use of phonics skills alone. In the past, phonics was taught during a separate period. Today, the development of word-perception skills in all reading-study activities is replacing isolated phonics instruction.

Phonics skills still have a very important place in reading instruction. Viewed in proper perspective as part of word perception, phonics becomes an integral part of the total act of teaching reading.

5. Individualized Reading: Pupil Achievement, by Emmett A. Betts, Ph. D.

Through individual conferences and group discussions, each pupil makes up his mind regarding why he wants to read; that is, he sets up fairly clean-cut purposes for reading about rockets or some other area of science, about adventures on the high seas or in the far West, etc. Then he considers types of materials, e.g., reference books or fiction – which will serve his purposes. This consideration of motivation (e.g., purposes) gives the pupil a "set" for a profitable reading or study; it gives him a rudder so that he will not flounder or float aimlessly. It also serves as a compass for more effective self-direction.

As a part of the preparation, the teacher uses a set of graded instructional materials – e.g., basic readers – to estimate the pupil's reading level and his specific needs. But, equally important, she gently and adroitly uses positive suggestion and explains her findings to bring the pupil face-to-face with reality regarding his achievement and needs.

Reading Levels

During this individual conference, the teacher emphasizes not only the child's immediate independent reading level but also the specific skills (e.g., a spelling pattern or outline form) which he needs to learn in order to read at a higher level. At no time does she make him aware of finger pointing, lip movements, and other symptoms of distress when he attempts to read above his independent reading level. For the pupil, the emphasis is on skills and relaxation. However, the teacher uses both symptoms and skill needs in estimating the pupil's reading level.

To Teach or Not to Teach

By the very nature of the plan – one teacher, one pupil – individualized reading is done at the pupil's independent reading level rather than at his teaching, or instructional, level. At this independent level, the pupil can be comfortable in his reading and free from signs of distress when he has a "breather" between each unknown word or each new idea.

After the pupils have become quite versatile and independent in the use of letter and syllable phonics and basic thinking abilities, they can cope with no more than one new word in 100 words of reading. Before that time, they can deal successfully with no more than one new word in 200 words of reading. How soon a pupil achieves this relative independence depends upon the teacher's skill and knowledge, the adequacy of the program of skill development, and the pupil's aptitude for reading.

One of the *first* instructional jobs is easily discharged by estimating the pupil's reading level. A second instructional job is the estimate of interest and skill needs. This second task is not a formidable one when the teacher has access to and knows how to use informal inventories. A third instructional job is to teach each child so that at the end of each reading period he can state definitely and concisely "what I learned today." Nothing succeeds like success when the child can pin-point his own successes, but the teacher PLANS to help each child to improve every day.

Every pupil in the class needs to be taught. That is, he needs teacher guidance to mature his interests, to make automatic use of phonic skills, and to think how to think in different types of reading situations.

When any pupil – the high achiever or the low achiever is neglected or "rejected," he is handicapped in his reading by inefficiencies both great and small. A high achiever, for example, is often "rejected" by teachers who merely "let him read" or "send him to the library." On the other

hand, a low achiever may have mental limitations, emotional handicaps, visual skill deficiencies, hearing impairments, or very little aptitude for written language thereby presenting different needs. Then, too, pupils in that great middle group may be stumbling along, in need of attention to a variety of needs.

At its worst, individualized reading may be each pupil struggling along in a book below, at, or above his independent reading level. This situation, of course, is another form of busy work which develops undesirable habits, gives the pupil false security, embeds lip movement and other undesirable behavior, defeats legitimate interests, encourages inefficient letter-by-letter word attack, and so on. It is the kind of practice that makes perfect a myriad of bad habits. It is teaching with the accent on the negative – that takes the pupil in the wrong direction.

Planning to Teach

At its best, individualized reading is a heads-up situation in which the pupil has his own purposes and the teacher knows what they are and how to guide him in achieving them. By PLANNING, the teacher has each pupil in a book or other material that (1) he can read at his independent reading level and that (2) serves his purposes and, therefore, is interesting.

Furthermore, the teacher plans to teach at strategic times during the reading period. First, at some time during the reading periods, from five to ten or more new materials are displayed, commented upon, or recommended to the class. These materials may be a new issue of *My Weekly Reader*, a poem or collection of poems, an article in an encyclopedia, a section of a world almanac, an article in *Science Newsletter* or *Popular Science*, a new series of science or history textbooks, an anthology, a series of basic or supplementary readers, or trade books. The purpose of this presentation, please note, is to extend or enrich pupil interests.

Second, the teacher schedules some time during each period to guide the pupil in his selection of materials that read. Instead of taking the edge off the ultimate goal of self-selection, this guidance, especially in the beginning, helps the pupil to meet reality head-on and, therefore, to develop a more nearly adequate self-concept. Some pupils need easy materials, sometimes far below their grade levels, because they are immature in both reading drills and interests. Others may need materials far above their grade level because they are mature in both reading skills and interests. A few may need materials at a high interest level but with a low readability level because their interests are more mature than their reading skills. To these and other pupils, the teacher needs to bring the best of her professional competence. This is not the point in the reading period for a hands off, or lazy faired, policy.

Third, the teacher PLANS to be available to help pupils during their silent reading and study activities. At this point, however, she depends upon the pupil's awareness of his needs. This dependence on the pupil has its hazards, but it is worth the gamble, especially when the teacher follows up during the personal conference period. At these times during the silent reading and/or study, the teacher TEACHES the pupil to apply previous learnings, with the full knowledge that *application* of skills is equally as important as the *first teaching* of them.

Fourth, the teacher PLANS to TEACH during the personal conference period those skills and abilities which cannot be taught more effectively in need groups. This planning calls for the sequential development of skills through informal activities and the use of textbooks, including study books.

The personal conference is no time for superficial chitchatting about a story, but it is a time to come to close grips with specific skills and abilities. It is the time when the pupil has the thrill of learning

a new skill or reviewing others because he feels the need for it.

Fifth, the teacher PLANS to TEACH new skills and to review others in group situations. This teaching is usually done in need groups. However, here are some points of reality which cannot be side-stepped:

- a. Word perception skills and thinking abilities can be used *automatically* in a reading situation if the need for them is *identified* in that type of situation and if they are *developed* in a meaningful reading situation.
- b. Skills and abilities are developed sequentially. For example, the child is taught to hear the syllables of spoken words before examining the written words for those syllables; he is taught to classify and index ideas before attempting to learn how to do a two-point outline, etc.
- c. Skills and abilities are developed through materials that are readable for the pupil; therefore, attempting to teach a whole class or a highly heterogeneous group at one time is worse than nonsense. A *need* group at anytime is necessarily a group at approximately the same reading level; that is, teaching, or instructional, reading level.

Permissiveness

In the days when progressive education was a fad, the child-centered classroom was emphasized. Some teachers made good use of the concept while others used it to cover up unplanned and ineffective use of time and materials. At one time, a foe of progressive education reported one child as saying, "Do I have to do what I want to do today?"

Individualized reading, too, can lull teachers into a hypnotic sleep. For example, self-selection of reading materials (1) without pupil and teacher preparation and (2) without teacher guidance can lead to aimless, ineffective, slovenly, and unproductive reading. There is no magic in the term *individualized reading*. Miracles of learning are not performed when this plan of providing for individual differences is adopted.

Any scholar can attest to the fact that learning requires careful planning, a full measure of effort, and considered evaluation. Likewise, any scholar in the psychology or pedagogy of reading knows that "just plain reading" is a part of reading instruction but it is not the whole answer. They know that real gains in pupil achievement – both high achievers and low achievers – are made only through the planned, systematic teaching of skills.

The Power of Skill

Skilled development is the backbone of any reading program that helps the child mature in his interests. Without skills, the pupil cannot satisfy his personal needs through reading. In this sense, skills are a means to an end: permanent and worthwhile interests in reading. Skillful reading requires the judicious selection of previously learned skills. When the teaching of word perception skills and thinking is put on a sentimental, haphazard, catch-as-catch-can basis, interests are shriveled and dwarfed.

It is good teaching that makes the pupil increasingly independent in his reading-self-directing. It is good teaching that begins with the pupil's immediate, worthwhile interests but does not stop there. It is good teaching to give the pupil on-the-spot help with words and ideas when he needs it.

But the foundation of good teaching is that complex of interest, word perception skills and thinking abilities which is beamed sequentially and cumulatively.

Effective teaching involves hard work based on careful planning. This strategy and effective use of tactics requires professional competence, including teachers and the authors of instructional materials. At no time is a professional man's job to be delegated to a boy. When the time comes for a decision regarding what shall be taught, when it shall be taught, and how it shall be taught, the

professionally competent teacher does NOT ask the advice of a pupil, under the illusion or delusion that the practice is somehow GOOD because it is PERMISSIVE.

Here is a "for instance," Freddie has made progress in beginning reading but he asks for help on the word *like*. He is self-motivated, and is encouraged by the teacher to ask for help. But Freddie only knows that the word *like* is a stranger to him. On the other hand, the teacher may find that he doesn't know or can't apply the final *e* vowel rule. In this case, Freddie has a specific need and the teacher classified that need to give him help. But the teacher KNOWS that Freddie needs to do more than memorize a rule in order to apply a phonic skill. She knows he must hear the long *i* sound and say the sound before comparing it with other known final *e* words with long *i* sounds. This is why the teacher is paid to instruct Freddie, the learner.

Of course, the teacher is deeply concerned with the pupil's motivation to learn new skills. For this reason, she makes doubly sure that Freddie understands how the development of listening and phonic skills will help him with his immediate problem. In the process of helping him learn his new skill, she lets him solo (apply the skill) on other new words to which the phonic skill applies, thereby giving him a feeling of how serviceable that skill will be in the future.

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6. Reading by Structures: General Considerations, by Emmett A. Betts, Ph.D.

There are two important keys to reading by structures: (1) *intonation* and (2) *word groups*, or sentence units.

Research on reading and silent speech – inner speech, the movements of the speech apparatus during silent reading – reveals that even an efficient reader "talks to himself" during silent reading. That is, there is speech-motor activity in reading. Furthermore, grammatical meaning – the relationships between word groups – is signalled by intonation. There is, for example, usually only one stressed syllable in a word group – called phrase stress as contrasted to syllable stress.

The largest unit is the sentence. But the sentence may be sliced into two units: subject and predicate. These sentence units may be sliced into noun patterns, or clusters, (e.g., *All the news that's /it to print. . .*), and verb patterns, or clusters, (e.g., *No one can draw more out of things, books included, than he, already knows.*) – headwords and their modifiers. In turn, noun and verb patterns may be sliced into smaller units, as in *The injustice to an individual is sometimes of service to the public*. Finally, these substructures may be sliced into function words, (e.g., *the, must, very*) and the equivalents of nouns, verbs, adjectives, and adverbs.

1. Speech has *rhythm*, resulting in the grouping of *sounds into patterns*, or structures (phonological phrases).
 - a. Groups of speech sounds are spoken together.
 - b. Groups of speech sounds are heard together.
2. Speech is a grouping of sounds rather than of words. Beginners in reading need to be taught the concept of a word because speech has been learned as a sequence of patterned sounds rather than a sequence of words. (See Betts, "Teaching Word Perception Skills: Beginning Reading")
3. Groups of speech sounds are signalled by intonation.
 - a. Within each group of sounds, there is usually only one heavy stress.
 - b. There are as many groups of speech sounds as there are heavy stresses.
 - c. Usually there is heavy stress on the last syllable of a word group.
4. Groups of speech sounds are signalled by "markers."
5. Reading is, in part, the translation of groups of words (writing) into the patterns of speech sounds

which they represent.

- a. Because groups of words are spoken together as a sequence of sounds, they are read together.
- b. Because punctuation – linking, separating, and enclosing – partially symbolizes the patterns of speech, it is studied as a key to word groups.
- c. Because word groups are signalled by markers (e.g., *to, for, of, which, when*), they are studied as keys to word groups.

6. Comprehending the meanings of sentences requires an understanding of the relationships among its word groups (structure groups, sentence units, or pattern parts).

- a. Sentences are composed of two parts: subject and predicate.

Restif (was a fantast of reality).

He that sups with the devil (must have a long spoon).

An aircraft *tire* that will deflate after a plane has taken off and inflate before landing (is being designed by the U.S. Airforce).

A society strong enough to sustain strong criticism (is one that the people are most likely to sustain).

Note: Test the above sentences by dividing the elements arbitrarily in other ways, as in:

Art (plays odd tricks with history).

Art plays (odd tricks with history).

Art plays odd (tricks with history).

Art plays odd tricks (with history).

(1) The key word in a subject is a *noun* (e.g., *art*), or a noun substitute, e.g., *it* or *he*).

(2) The key word in a predicate is a *verb* (e.g., *add*).

b. Introductory word groups pattern with the rest of the sentence – the introductory structure is one part (unit) and the rest of the sentence is another part (unit). That is, the subordinate word group modifies the rest of the sentence and is signalled by a comma.

(When you have no observers), it's best to watch yourself (Arnold Glasow)

(When a man says he sees eye to eye with his wife), he simply means his vision has been corrected.

(While it may still be true that you can't fool all the people all the time), those highway interchange signs come pretty close.

(If you demand red carpet treatment), be careful someone may pull out the rug from under you.

(If two men agree on everything), you may be sure that one of them is doing all the thinking.

(Since language determines experience), we must be attentive to design a language which keeps perception open.

c. Noun clusters are patterned parts of sentences, composed of a head word (a noun) and its modifiers.

(1) Modifiers of head words – at the syntactic level

(The silver *lining*) is easier to find in someone else's cloud.

(The *reward* of great men) is that, long after they have died, one is not quite sure that they are dead.

(The number of *people* who go to concerts) exceeds those who go to baseball games.

(The total loss (birth) – dead, damaged, and defective) is in the neighborhood of 100 per 1000.

(2) Modifiers of modifiers – at the word group level.

(Some *very* old men) attended the meeting on geriatrics.

In this sentence *very* modifies *old men*. *Some* and *old* modify *men*, at the syntactic level.

(The man on the ladder in the corridor) is the custodian.

In this sentence, *in the corridor* modifies *ladder*.

7. In directing reading activities, the comprehension facet includes both the word group structures and the content of a selection.

- a. Word and word group markers
- b. Intonation signals

8. For easy translation of groups of words (writing) into speech sounds, the readability of the material is at the pupil's *independent* reading level. (See Betts', "Discovering Specific Reading Needs," Chapter XXI in *Foundations of Reading Instruction*, 1957, 1950, 1946.)

Word-by-word reading is a symptom not only of inadequate word-perception skills but also of inability to use intonation cues to grammatical meaning – the relationships between word groups.

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[*Spelling Progress Bulletin Summer 1983 p6 in the printed version*]

7. Directed Reading Activities: Strategy and Tactics, by Emmett A. Betts. In Conclusion

Our discussion of strategy and tactics for helping pupils to improve their reading and study skills begins and ends with the teacher – especially his attitudes. First, the master teacher gives his pupils love – a warmth, loyalty, and devotion that discerns the pupil's feelings and flows back to bring joy and satisfaction to the souls of both teacher and pupils. This quiet, dignified love given by the teacher brings calm and beauty into the learning situation.

But in the master teacher's person, love alone is not enough. He brings to his pupils not only a will to understand them but also techniques for understanding them. His pupils' concerns are his concerns, but he tries to understand the *causes* of their concerns: why Tommy has a sweaty, desperate grip on his stubby pencil, why Mary is so easily distracted, why Jack is bored with the group's textbook but is interested in radium, why Susan always has her head in a book but contributes little or nothing to group projects. Yes, the master teacher gives love, but it is love highlighted by a scholarly understanding of his pupils' personal wishes, concerns, achievements, and needs.

In addition to love and understanding, the master teacher has faith in his pupils. His faith in their desire to learn, in their ability to achieve, in the inherent goodness of their intentions, brings repose and expands the intellect of his scholars. To have faith is to believe in them and in his profession – to trust.

Love, understanding, and faith open the doors of the mind. These three marks of a master teacher give reality to the attitude that only the school, not the child, can fail.

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8. Learning Word-Perception Skills, by Emmett A. Betts, Ph.D.

(1) Category Learning

Spelling Patterns

A spelling pattern is a sequence of letters that represent a sequence of speech sounds, as *fat* represents /'fat/ and *fate* represents /'fāt/. In the word *fat*, the sequence of speech sounds is signalled by the consonant-vowel-consonant *f a t* sequence of letters. In the word *fate*, the sequence of speech sounds is signalled by c-v-c- plus final *e* signalling the sound /ā/ for the vowel.

Basic Spelling Patterns

From this writer's studies, 25 to 30% of about 800 commonest monosyllables may be classified in these categories.

(consonant)-vowel-consonant

1. /a/ at-tap-bag

2. /i/ it-him-big

3. /e/ bet-fed-pen

4. /a/ top-got-box

5. /ə/ but-fun-mud

(consonant)-vowel-vowel-consonant

11. /ā/ pain-wait-mail

12. /ē/ feet-seem-bleed

(consonant)-vowel-consonant plus final *e*

6. /ā/ same-take-tale

7. /e/ these-scene

8. /ī/ mice-hive-kite

9. /ō/ nose-hope-whole

10. /yü/ use-cute-fume

13. /ō/ oat-road-soap

14. /ē/ eat east-feat-beat-heat

Minor Spelling Patterns

Minor spelling patterns with few words in each one include:

consonant-vowel

1. he, we, she, be, me

2. my, by, try, cry, spy, shy, sky, why

3. say, day, may, hay, play, way

4. no, go, so

Variant Spelling Patterns

Variant spelling patterns are mostly exceptions to basic spelling patterns and, therefore, with few words in each one:

<i>Phonogram</i>	<i>Sound</i>	<i>Words</i>
alk	/ok/	walk, talk, stalk
all	/ol/	ball, call, fall, tall
aught	/ot/	caught, taught, haughty
aw	/o/	saw, paw, law, jaw, draw
ew	/yü/	few, pew
ew	/ü/	chew, flew, crew
ight	/īt/	light, night, right, tight
old	/ōld/	old, cold, bold, sold, told, gold
ong	/ong/	long, song, wrong
ould	/əd, ud/	could, should, would

(1) Category Learning

Vowel plus r. Vowel plus *r* situations are very common.

Phonograms	Sound	Words			
air	/æɪr/	fair, stairs, pair	<i>ire</i>	/īr/	here
ar	/ɔr/	dwarf, wharf, ward, wart	<i>oar</i>	/ōr/	bird, dirt, third
ar	/är/	arm, cart, farm, harm,	<i>oor</i>	/ūr/	tire, fire, spire, wire
are	/æɪr/	charm	<i>oor</i>	/ōr/	boar, board, oar, roar
ear	/æɪr/	fare, snare, rare, mare	<i>or</i>	/or/	poor, moor
ear	/ər/	earth, heard, learn	<i>or</i>	/ōr/	floor, door
ear	/æɪr/	wear, swear, bear	<i>ore</i>	/ōr/	corn, born, cork, horn
eer	/iər/	ear, dear, hear, near,	<i>our</i>	/ōr/	sword, fort, forth
er	/iər/	ear, dear, hear, near,	<i>our</i>	/aur/	shore, more, core, chore
er	/ər/	clear	<i>ur</i>	/ər/	four, pour
ere	/eər/	deer, cheer, steer, jeer	<i>ur</i>	/ur/	flour, ours, sour
ere	/ər/	her, herd, jerk, verb	<i>ure</i>	/yür/	burn, hurt, turn, church
ere	/iər/	there, where	<i>ure</i>	/yür/	burn, hurt, turn, church
ir	/əɪr/	were	<i>(w)or</i>	/wər/	sure, lure
					pure, cure
					word, work, worm, world

Learning Spelling Patterns

Learning spelling patterns is underemphasized when the pupils are given no systematic instruction in strategies for identifying words. This situation exists when they are given beginning reading materials with a diversity of spelling patterns – regular (e.g. *him, sit, did*), variant (e.g., *ball, call, tall*), and irregular (e.g., *(c)ap, (c)ent, or night, height*). Learning categories (spelling patterns) or learning other ways to identify words is defaulted by the use of the sight method which is in reality a tell-the-child -the-word procedure.

Learning spelling patterns is overemphasized when the pupils are taught no other techniques (e.g., the cue *oi /oi/* in *noise, voice*, and other final *e* words of this type). After all, there is a *preponderance* of words which are *not spelled regularly*. Furthermore, spelling patterns can be overemphasized in the case of unstressed function words (e.g., *to, can, or, for*), because intonation patterns are violated and word-by-word reading becomes the standard.

The process of categorizing, or patterning, word forms contributes to the learning of word-perception skills:

1. Studying the spelling patterns of words emphasizes the alphabetic principle – the relationships between sequences of letters, as in *at-rat, ate-mate, boat-goat*.
2. Studying spelling patterns leads to the use of effective strategies for the identification of words. (Use of spelling patterns, of course, is only one type of strategy; other types of strategies are required for identifying words with variant spellings, as *heard, wand, since*.)
3. Learning categories of word forms (e.g., *at-hat* versus *ate-hate*) encourages selective responses (e.g., is it *at* or *ate*?) to relevant stimuli (e.g., *cat-cap-tap* in which the vowel /a/ is followed by a consonant).
4. Learning spelling patterns of written words which have a fairly high relationship to the sounds of spoken words contributes to word perception as an organizing process. This learning of categories is far more effective than memorizing phonic rules.

5. Learning categories of spelling makes use of analogies or similarities between word forms, which tends to reduce possible perceptual jungles of letters to some reasonable order. This learning of like features tends to simplify word perception.

6. Learning to identify somewhat consistently spelled words: (e.g. *beat-feat* versus: *have-come-want*) contributes to the identification of structurally meaningful relationships between spellings and sequences of sounds: represented by them.

7. Learning spelling patterns gives needed emphasis to the consonant boundary of a syllable (e.g., *teach, sky, eat*) as well as to the vowel nucleus. This situation is in contrast to vowel generalizations: (rules) which direct attention primarily to the vowels; neglecting the consonant boundaries which require equal attention.

Categorizing, or patterning, word forms simplifies the learning of word perception skills, e.g., learning that *ate-made-make-take-same-gave-cage-safe-save-tale-cave* are in the same (consonant)-vowel-consonant-plus: final *e* pattern helps the pupil to see the new situations as old categories. (This category of word forms, referred to above, is called the final *e* rule or pattern.)

9. Categorizing word forms reduces the need for learning: Learning the (consonant)-vowel-consonant pattern *at-hat-cap-ran* reveals the identity of more than one-third of the commonest "short" vowel-plus-consonant words such as *cat, bag, and ask*.

10. Studying the spelling patterns of monosyllabic words (e.g., *it-sit*) facilitates the identification of stressed syllables – embedded in multisyllabic words (e.g., *situation*). These patterns tend to be valid for both primary stressed syllables (e.g., *slug* and *sluggish* /'slæg-ish/) and secondary stressed syllables (e.g., *ten* and *tenderhearted* /ten-dər-'hært-əd/).

11. Categorizing spelling reinforces the learning of word perception skills.

a. Learning, for example, that *at* and *cap* are in the same spelling pattern increases the probability that *cat* will be more easily identified as a member of that category.

b. The making of decisions regarding the inclusion of additional words in a category – e.g., from *like* and *time* to *wife* to *life* to *while* – increases the preciseness with which the likenesses are discriminated.

c. Contrasting spelling patterns, for example; *at-ate* and *mad-made*, increases the probability of correct identification of words in each category.

12. Learning to respond to words of a category (e.g., *late-made-safe*) tends to produce similar responses to words that are similar in one respect (e.g., *shake* and *flake*). This is called stimulus generalization.

Embedded Spelling Patterns

Learning categories of fairly consistent spellings of monosyllables prepares learners to identify them in stressed syllables of multisyllabic words. The *mile-file-tile* spelling pattern, for example, includes the last (strongly stressed) syllables of *beside, arrive, revile* /re-'vīl/, *revise* /ri-'vīz/ and *divide*. The *mate-fade-rate* spelling pattern includes the last (medium stressed) syllable of *exhilarate* /ɪg-'zil-a-,rāt/ and *deviate* /'dē-vē-,āt/. In general, the basic spelling patterns tend to function in the pronunciation of syllables that are stressed – strong or medium.

The following words illustrate embedded spelling patterns;

(consonant)-vowel-consonant

1. /a/ happy /'hap-e/ inhabit /in-'hab-ət/
2. /e/ welcome /'wel-kəm/ invent /in-'vent/
3. /i/ pillow /'pil-ō/ inflict /in-'flikt/

(consonant)-vowel-consonant plus final e

6. /ā/ became /bi-kām/escape /is-kāp/
7. /ē/ stampede /stam-'pēd/ complete /kəm-'plēt/
8. /ī/ arrive /ə-'rīv/ surprise /sər-'prīz/

(consonant)-vowel-vowel-consonant

11. /ā/ stately /'stāt-lē/ female /'fē-,māl/
12. /ē/ season /'sēz-n/ repeat /ri-'pēt/

4. /o/ rocket /'rāk-ət/ promise /'prām-əs/
5. /u/ tunnel /'tən-l/ reluctant /ri-'lək-tənt/

9. /ō/ suppose /sə-'pōz/ telephone /'tel-ə-,fon/
10. /yü/ uniform /'yü-nə-,form/ amuse /ə-'myüz/

- /e/ greedy /'grēd-ē/ speeding /'spēd-ing/
13. /o/ floated /'flōt-əd/ approach /ə-'prōch/

Minor spelling patterns, too, are embedded as stressed syllables:

consonant-vowel

1. me /'mē/ recipe /'res-ə-pē/
2. my /'mī/ notify /'nōt-ə-,fī/
3. may /'ma/ mayor /'ma-ər/

What spelling patterns are embedded as stressed (strong or medium) syllables in each of these words?

habit _____
familiarize _____
aqueduct _____
arbitrate _____

invade _____
stepladder _____
validate _____

-o0o-

[Spelling Progress Bulletin Summer 1983 p8 in the printed version]

(2) Discrimination Learning

Discrimination learning (learning slight but significant differences between word forms) is a process quite the opposite of category, or generalization, learning (learning to identify similarities between word forms). For discrimination learning, the pupil emits a certain response under one set of conditions (e.g., vowel /a/ followed by a consonant in *at-sat-cat-cap*) and another response under another set of conditions (e.g., vowel /a/ plus a consonant and final e in *ate-mate-made*). Learning to make discriminations: among word forms is essential to efficient, automatic word perception.

Consonant Boundaries

Within the *at-sat-cap* category, the pupil must discriminate between the syllable boundaries. The word *at* has no initial consonant but it fits the (consonant)-vowel-consonant spelling pattern. The first word, (consonant), is given in parentheses because it is sometimes but not always a requirement for this: spelling pattern.

Within other categories of basic spelling patterns, the pupil also must discriminate between consonant boundaries as in *it-hit*, *made-take*, *oat-boat*. These consonant boundaries can be – and usually are – neglected in teaching word-perception skills.

Basic and Variant Patterns

The words *at-had-tap-that* fit the (consonant)-vowel-consonant pattern, and each of the words is pronounced with vowel /a/. But over-emphasis on this: (c)-v-c pattern may defeat the learner when

he is confronted with *all-ball-call-fall-stall* variant in which *a* before *ll* represents the sound /o/. To preclude this possibility, learners are taught to discriminate, between the basic pattern (*at-bad*) and the variant pattern (*all-ball*) by using the *all* phonogram cue to *all-ball*.

In the above instances, the discrimination learning begins with the discrimination between the vowel sounds – the sound /a/ of *at* and *bad* versus the sound /o/ of *all* and *ball*. Then discrimination between word forms – *at-bad-cap* versus *all-ball-call* – is learned.

The words *eat-each-meat-steam* have the (consonant)-vowel-vowel-consonant pattern. But again, overemphasis on this (c)-v-v-c pattern may interfere with the perception of the *bread-thread-meant* variant in which *ea* represents /e/. In this instance, learners are taught to discriminate between the basic pattern (*eat-each*) and the variant pattern (*bread-thread*) by using the meaning (lexical or referential) cues.

Teaching discrimination skills in word perception results in the pupil's selective perception of words – and assigning them (e.g., *cut-but-cup*) or parts of them (e.g., *ie* of *pie-lie-die*) to categories. In learning word-perception skills, pupils learn to make a great variety of discriminations, using different types of cues:

Strategies of Learning

In learning word-perception skills, the pupil acquires a variety of types; or strategies, for learning: For words in some-basic patterns – e.g., *eat-seat-each-steam* the pupil learns:

1. To discriminate between (or index) *eat* and *seat* or *eat* and *each* or *steam* and *seam*.
2. To classify, or categorize, *eat-each* etc. in the same spelling pattern.
3. To decide on the probabilities that *ea* represents /ē/ as in *eat* and *each* or /e/ as in *bread* and *death* or /ā/ as in *break* and *great*.

Discrimination learning enters into category learning. In learning the *at-rat-cap-bad* category, the pupil must discriminate between the consonant boundaries – e.g., between the *c* /k/ and *r* /r/ initial consonants of *cat* and *rat* or between the *t* /t/ and *p* /p/ final consonants, of *cat* and *cap*.

Since not all (consonant)-vowel-consonant spelling patterns represent the vowel sound /a/, cue learning is essential to discrimination learning for the *all* /o/ in *ball* and *fall*, the *alm* /äm/ of *calm* and *palm*, and so on.

[*Spelling Progress Bulletin Summer 1983 p8 in the printed version*]

(3) Mediated Response Learning

In word perception, certain obscure and unobservable processes operate between the stimulus (e.g., the word *cat* or the word *autochthonous*) and the response. In responding to the word *cat*, the beginner may call on preestablished associations with *at-hat-cap* or with cues from one or all three words. For the far more complex word *autochthonous*. /'o-,tak-then-əs/ the experienced reader may call on a number of pre-established associations: relating the number of places in which vowel letters occur in the word form to the probable number of syllables: relating the phonogram *au* to the sound /o/, the phonogram *ch* to the sound /k/, the phonogram *ous* to the unstressed syllable /-əs/; and so on. These internal, or psychological, processes are often called mediating (relating or intervening) responses

Past learnings tend to mediate present learnings. The pupil who has systematically studied the *at-cat-hat* spelling pattern tends to bridge the gap between the stimulus *sat*, and the response /'sat/,

providing, of course, he relates the sound /s/ with the letter *s*. The systematic addition of words fitting this pattern (e.g., *bat-rat*, *cap-tap*) controls, in a sense; the mediating process and increases predictability of responses.

The pattern *bar-car-far-jar-star* has structural (linguistic) meaning for the pupil who has studied it systematically. It is this *structural meaning* – grouping by spelling patterns – that is crucial to the mediating, or relating, process.

When the beginner in reading learns to tell the difference between letters (T and L or b and d) or between the spelling patterns of words (*sat* and *sit*), he is discriminating. Before this time he has learned to discriminate between speech sounds, between referential sounds – e.g., *mother* /'mɒθ-ər/ and *daddy* /'dɑd-ē/ – and the emotive sounds *ah* /'ä/. This discrimination learning involves a complex of skills prerequisite to listening and talking, and, later, to reading and writing. Hence, discrimination becomes a mediating response.

When the pupil generalizes regarding the relationship between the phonogram of *oi* in *oil* and the sound /oi/, he is using a powerful mediating process. This generalization process operates: for the *he-me-we*, *my-by-shy*, *day-may-say*, the *not-lot*, *oat-boat-goat*, *eat-feat-meat* and other major and minor spelling patterns.

Commonly used words tend to be short words: (e.g., *a*, *an*, *and*, *the*). In fact, there is some evidence indicating that about 50% of these common words are one-syllable words. But the other half range from two-syllables (e.g., *again*, *exit*, *strengthen*) to words of many syllables (e.g., *repatriate*, *microevolution*, *telecommunication*, *antipatheticalness*, and *superseptuaginarian*). Certainly multisyllable words appear to be more complex stimuli than one syllable words. Therefore, they require greater cue search, more complex groupings into syllables; and so on – and it appears reasonable to assume that complex processes of mediation are required for their perception.

The complexity of mediating processes is increased by differences among individuals. Some beginners experience more difficulty in learning word-perception skills – for emotional and a number of other reasons. A few pupils have difficulty with closure – for example, given the sound of *oi* in *boil*, they are unable to complete the sound sequence for the word. These differences in abilities of pupils to use various mediating processes are a class of important variables, often called intervening variables.

[*Spelling Progress Bulletin Summer 1983 p9 in the printed version*]

(4) Phonics, by Newell W. Tune

Phonics is another method of teaching reading but it has limited usefulness because only about 22% of the words in adult running text are spelt phonetically. Most of these words are common words of one or two syllables. That is why many primers and beginning readers use these regularly or phonetically spelt words. Unfortunately, some of the function words are not spelt entirely phonetically, such as *is*, *was*, *has*, in which the *s* has the *z* sound. Using such words mars the usefulness of phonics and causes doubt in the learner's mind as to the reliability of phonics:

However, there are many letter combinations of 2, 3, 4, 5 letters which are consistent in representing only one sound and therefore can be used as phonetic units. One of the most consistent is the letter combination *ight*, which always represents the sound /ɪt/. But there is also another way of representing this sound: with the letter combination *ite*. This is also reliable but is used in only a limited number of words, e.g., *bite*, *cite*, *flite* (golf balls), *kite*, *lite* (beer), *nite* (rider), *quite*, *rite*, *site*, *trite*, *wite*. Some of these spellings are rarely used. This short list can be added effectively to the list of *ight* words.

Another pair of letter combinations is: *aught* and *ought*. They are also quite reliable in representing the sound /aut/. A third set of letter combinations is: *cion*, *sion*, *cion* – all of which only represent the sound /shun/. 80% of the time this sound is represented by *tion*, and less than 20% of the time by *soon*. Only a few words are represented by *cion*. Usually *sion* is used when the word stem ends in *s* or *n*.

Other letter combinations are: *an*, *and*, *en*, *end*, which beside being regular are also spelt phonetically – at least in careful, deliberate speech. In rapid conversational speech, the vowel is usually reduced to schwa, being sounded as: /ən/, /ənd/, /ən/, /ənd/.

Another letter combination that is used frequently is *ed*. It is pronounced often as /ed/ but also frequently as /d/, and sometimes as /t/. Despite these variables, it can be taught as a regular spelling.

Another reliable suffix is *-ness*. It is always spelt and pronounced phonetically /nēs/. So is the ending *-ly* which is either pronounced /lē/ or /lī/. And the endings *-ic* and *-ick* which are also regular and phonetic /īk/. Also are the endings *-ing*, *-gy*, *-ology* regular and phonetic, being pronounced /ing/, /jē/, /olōjē/, along with *ity* /ītē/.

The silent terminal *e* rule is not very consistent. Sartorius said that there are 248 conformals to the rule and 339 exceptions. This is less than 50% efficient, hence the rule should not be taught, unless both lists of conformals and exceptions are given.

I'm sure I've overlooked many other suffixes that are regular, but you can compile a complete list from a large rhyming dictionary. Whether it is necessary to teach all of these suffixes, many of which are naturally phonetically spelt, is a question to be answered by research.

There are some prefixes that are regular and deserve being taught. *Be-* and *de-* are usually pronounced /bē/ and /dē/ but often are /bī/ and /dī/ in rapid, conversational speech.

It was debated (in my mind) whether it was better to present these suffixes in alphabetical order – which would present the phonetically spelt prefixes first – or to present the irregularly spelt suffixes first. It was felt that the latter is better because the learner then would not expect to find all letter combinations spelt phonetically in order to represent in a regular manner speech sounds. And of course, that means that they would not expect to be able to analyze such letter combinations into phonetic parts.

9. Readability: Contractions, Conclusions, by Emmett A. Betts

1. Contractions are counted as uncommon words in readability formulas for evaluating reading materials in the primary grades. (See Morphett, Weedon, and Washburne, *Winnetka Chart for Determining Grade Placement of Children's Books*.)
2. Contractions are seldom used in writing by children even in the upper grades, except in intimate correspondence.
3. In oral reading all individuals tend to use learned intonation patterns in reading; for example, shortening (contracting) *can* to /'kən/ or /kng/ or *he is* to /hēz/ to achieve weak stress in a word group.
4. Seventeen contractions: are among Fitzgerald's 222 spelling demons.
5. Contractions tend to violate common spelling patterns; hence, their use in primary reading materials interferes with rather than facilitates the learning of word perception skills
6. Different types of contractions: present different types of learning problems.
 - a. One syllable contractions, such as *I'm, he's, they're*
 - b. Two syllable-contractions, as *isn't, haven't*
 - c. Contractions in which the first part tends to retain the same sound(s), as *I've, they'd*
 - d. Contractions in which the sound of the vowel changes, as in *don't* (do not)
 - e. Contractions which are unrelated to the word, as *won't* (will not)
 - f. Contractions in which 's represents either /s/ or /z/, as in *it's* and *he's*.
7. Contractions of the auxiliary verb with a preceding pronomial subject – e.g., *I've, he's, we've* – are used in familiar and colloquial speech rather than in literary English. However, they are used increasingly in books and magazines for adults by authors reflecting "an urbane conversational tone."
8. The number and complexity of skills – excluding interpretation of contractions – to be learned by the beginner in reading can be grossly underestimated:
 - a. Left-to-right progression
 - (1) Word perception
 - (2) Line attack
 - b. Relating of speech to sounds to graphemes (letters and punctuation)
 - (1) Perception of isolated words, with their syllable stress
 - (2) Perception of words within their intonational contexts
 - c. Relating the structure of a string of speech sounds to the structure of groups of written words representing them
 - (1) Morphemes
 - classes of words (Parts of Speech)
 - function words
 - (2) Syntax
 - word order
 - relationships between word groups
 - types of sentences
 - antecedents of pronouns,
 - d. Etc.

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10. Are There Limitations on Phonics Rules?, by Patrick Groff, Ed.D.*

*Dept. of Elementary Educ., San Diego State Univ., San Diego, CA.

One of the key questions posed by the International Reading Assoc. Special Interest Group on Reading: Orthography and Word Perception is. "What are the limitations of phonic generalizations?" I have recently completed some research which offers some new insight into this query.

Phonics Rules Have Limitations

In 1963 Clymer reported on his study of how frequently the application of phonics rules would result in the true pronunciation of words. As a result of his study, Clymer advised teachers that the application of phonics rules must not be considered useful unless it results in the accurate pronunciation of written words 75% of the time.

Since 1963 there has been general acceptance among professionals of the design of Clymer's research and the legitimacy of his 75% exclusion rule. An inspection of the texts on the methods of reading instruction published since the appearance of Clymer's findings indicates that the great majority of their authors has accepted the proposition that unless the application of a phonic rule results in the accurate pronunciation of a written word 75% of the time, this application is not a useful practice. Teachers are advised not to teach children phonics rules that do not meet the 75% test of utility.

Reading experts who oppose the teaching of phonics are quick to use Clymer's data as support for their contention that English spelling is so irregular or unpredictable that the application of phonics rules is not a useful practice. The advocates of the so-called "psycholinguistic" approach to reading instruction particularly are heartened by the Clymer proposition since they are convinced it is misleading to try to teach the child in terms of phoneme-grapheme correspondences. Part of their objection to phonics teaching rests on their belief that only a few of the frequently taught phonics rules are consistent enough to relate to enough words to make them worthwhile teaching. Even the new *A Dictionary of Reading and Related terms* (Harris and Hodges, 1981), which was designed to bring clarity to the meaning of reading terms and to serve as a reference when questions arise about the reading process, agrees. This dictionary states that "a word may be taught as a sight word if it is not phonetically regular" (p. 295). A sight word, this lexicon says, is a word that pupils are expected to, learn to recognize, automatically as a whole unit. The examples given are: *and*, *have*, and *of*.

The Challenge to Clymer

Only a conspicuously few reading experts appear to challenge the notion that if the application of a phonics rule results in the accurate pronunciation of written words less than 75% of the time, it is not a useful practice. Some reading experts do argue, however, that approximate pronunciations of written words that are derived from the application of phonics rules *do* have utility in decoding words. They contend that phonic analysis is a tool to use in making an intelligent guess as to the oral equivalent of a printed word. They believe that even if the application of a phonic rule does not lead to precise pronunciation, it may still effectively lead a child to word recognition. Among the reading experts who make such statements are Jonathan Baron, Joseph Bukovec, Robert Glushko,

Philip Gough, Arthur Heilman, Frank May, Richard Venezky, and Richard Wallach. None of these reading authorities cite any empirical evidence in their defense of the value of gaining approximate pronunciations of words through phonics analysis, however. Apparently there has been no empirical test of Clymer's assumptions about this matter.

A Study of Clymer's Assumptions

It is obvious that the reading experts who over the years have demanded a 75% utility for phonics generalizations if they are to be thought of as useful have never paused to reflect: "If a child can gain an approximate pronunciation of a written word through the application of phonics rules, can he or she then infer and produce the true pronunciation of this word?" It is as apparent that none of the reading experts who accept this 75% maxim have never tested its assumptions.

I designed a study to investigate whether pupils who hear mispronounced words in a story-like context, words mispronounced so as to reflect the application of phonics rules, can infer and produce the true pronunciation of these words. It was the major assumption of my study that as pupils decode *head*, for example, using phonics rules for this word, they will pronounce the word as /hēd/. It was further hypothesized that after this point pupils can infer and correct their mispronunciation of *head* through the use of context and semantic cues available in connected discourse. I deduced that the manner in which pupils make such corrections in words read aloud to them would be comparable to the inferences they make when they decode irregularly spelled written words.

I read aloud to 49 second-grade pupils, one at a time, a story-like context in which they heard 14 key words mispronounced so as to conform to certain well-known phonics rules. For example, these pupils heard: "Did you bump your /hēd/?" The phonics rule here is that in *head*, the digraph, *ea*, signals that the first letter in the digraph will be given its "long" vowel sound and that the second letter of the digraph, *a*, will not be sounded. Each of the key words in this study was read aloud in a short sentence (as above). The individual child being tested was then asked to infer and produce the correct pronunciation of this word.

Of the 49 pupils in this study, 23 inferred and produced the correct pronunciations of all the 14 mispronounced words read aloud to them. Of the total responses by the pupils in this study, 686 (49 pupils x 14 key words), only 51 were incorrect. That is, only 7.4% of the responses by the pupils were in error. Never did less than 80% of the pupils fail to correctly infer and produce a given pronunciation.

These data suggest that by the end of the second grade pupils can readily infer and produce the correct pronunciations of irregularly spelled words that have been mispronounced so as to conform to specified phonics rules. The findings of this study thus do not support the conclusions given by Clymer, and later by other reading experts, that the application of a phonics rule must result in the true pronunciation of a written word if this rule is to be deemed a useful one. This study suggests that the only kind of phonics rule that would be classified as not useful for word recognition would be one whose application results in a mispronounced word – whose correct pronunciation pupils cannot infer from this approximate pronunciation and from the context of the sentence involved. In my study, the only phonics rules that might be considered for this category would be those that pertain to the vowel letter-speech sound correspondences in *ball*, *find*, *paper* and *her*. I found that

18, 22, 29, and 16% of the pupils in my study respectively, failed to infer and produce the correct pronunciations of these words.

Discussion

If one accepts Clymer's criterion that phonics rules only have utility if their application results in the true pronunciations of the written words then doubtless one would be in favor of reforming the alphabet so as to make that there are no irregularly spelled words. In this case, all phonics rules would become useful because they then would conform to Clymer's criterion.

But what if, as the data from my study suggests, phonics rules have utility with irregularly spelled words because they allow pupils to arrive at the approximate pronunciation of these words, pronunciations from which pupils can infer correct pronunciations? It would appear superfluous in this event to argue for a reformation in spelling.

The findings of my study suggest that the answer to the so-called spelling problems for readers supposedly created by irregularly spelled words is not likely to be the reformation of our current spelling. Instead, the solution to this issue would be to teach children in an intensive manner so that they would be assured of the ability to apply phonics in an easy and accurate manner.

This shift away from the attempt to reform spelling to making sure that all children are exceedingly skilled in the ability to apply phonics has one other advantage in its favor. It is more likely that society will accept intensive phonics teaching as a general practice than it will agree to a reformation of the spelling. My findings thus appear to have practical consequences. They provide a solution to a problem (spelling reform) that so far has resisted all attempts at its remediation.

I do concede that I only indirectly tested children's abilities to apply phonics rules plus context and to utilize the information that results from this application to the recognition of words. I am convinced, nonetheless, that until some more clever researcher than I can conceive of a way to determine children's abilities to utilize approximate pronunciations of words (that their attempts to decode words provides them) to infer the correct pronunciation of words, that my findings provide the most basic answer at present to this problem. I hope, of course, that my research will lead to more sophisticated investigations so that we will have more direct answers to the issue I have raised in this discussion.

It is true that the findings of my study only apply to reading. There appears at present ample evidence that learning to read and learning to spell are mutually exclusive activities in certain respects. The findings of my study thus should not be construed to offer evidence as to how to best teach children to spell correctly.

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11. More Obstacles to the Use of Intensive Phonics in Reading Instruction, by Newell W. Tune

There are several flaws in the arguments of the previous author, Dr. Patrick Groff. I will concede that the learner can *sometimes* guess the correct pronunciation of an unknown word he encounters, but this makes reading a vast guessing game which certainly is not a reliable method of decoding sounds. To be sure, the vocabulary being presented to 2nd graders can be controlled so that the words encountered can usually be guessed and will result in getting the proper pronunciation. But 3rd and 4th graders will surely encounter words not in their speaking vocabulary. This leaves them helpless in decoding the pronunciation.

As Groff mentions, there are several *classes* of words that do not lend themselves to decoding satisfactorily: all, ball, call, fall, gall, hall, mall, pall, scull, tall, wall; bind, dined (?), find, hind, kind, mind, pint, rind, signed, wined; her, were, there, where, sure; baker, fakir, maker, quaker, paper, shaker, taker, and thousands more.

One of the most devastating obstacles to reading—the deceitful words of English are homophones, homographs, and heterographs, of which there are 858 pairs in the first two types. The heterographs usually are suffixes and prefixes and number in the thousands. None of these three types lend themselves to easy decoding, because homographs are spelt the same for both long and short vowel sounds. A reform of English spelling would discriminate between the homographs and remove this obstacle.

In the case of homophones, Dr. Walter Gassner has proposed a means of discriminating between pairs of words that is presently being used successfully: allow alternative spellings for the same sound, as in *great* (graet)-*grate*, *read*-*reed*, etc. This should eliminate this problem (at least as far as the reader is concerned. The speller still has the problem of learning which of two possible spellings to be used for the same sound.).

But homophones are also words with multiple meanings. Ben Franklin said that words with multiple meanings (such as: bay, bow, back, fall, spring, light, dark, hard, and over 500 others) are not misunderstood in conversation because they are used carefully so as to not be misunderstood.

That

is also true of homophones.

All-to-gether, I think Groff's theories are only partially helpful but think that they should be tested more thoroughly in academic tests. Also he admits in his conclusion, that his tests pertain only to reading. Spelling is another problem that is not as easily remedied.

12. Unlock the Door to Spelling, by Dr. Janet T. Bercik*

* Whiting, Ind.

Have you heard your students say, "I hate spelling. It's so boring!" and come test day they prove it. The simple 12 word list has not been passed by your students. If it has been passed, you find they make errors in spelling on their English assignments – spelling errors that contain words you have just had in the weekly spelling list! It appears that words they memorized last week become meaningless this week. What can you do to challenge your students to become better spellers?

As a teacher of second and third graders, I wanted to challenge my students. There were always those children who seem to 'absorb' spelling words; there are those *who never* absorb spelling; and then there are the middle-roaders who really study and pass the test. Over a several year period, I devised a spelling system that has proven beneficial to me and exciting to my students. The resulting program takes time initially, requires planning, but yields substantial results.

First, start with your spelling book; then obtain copies of the reading series your children will be using; and finally use your English textbook. I realize that in most instances, we as teachers work with two or three reading groups, but it all works out. Make a list or obtain a list of all words from the reading series which your students will be using. From the English textbook, extract words you feel your students should know how to spell and become acquainted with during the year.

Second, take the three major lists you now have-spelling, reading, and English. Start with the spelling list for the first week in the book and add to it 20 other words that will be chosen from the remaining two lists. Your choice should include words from the stories that children will be reading the next week, and words that you think are of importance from the English textbook. You should assemble lists for a ten week period at a time to give yourself some perspective of the words you will be covering.

Third, turn one of your spelling boards into a permanent spelling board. Be sure it is located in a place where all students have access to it. Now place the 32 words on individual cards written in manuscript. Place 12 words in the first grouping from the spelling list for that week. (The remaining 20 will be a compilation of the reading and English lists.) In the second grouping place 10 words; and in the final grouping the last 10 words. Your board may now look as follows:

<i>Our</i>	<i>Spelling</i>	<i>Board</i>
_____	_____	_____
_____	_____	_____
_____	_____	_____
_____	_____	_____
Group A	Group B	Group C

Fourth, and this is a crucial step-present your students with their week's spelling list. Explain that each week *they* will be given 32 new words, and each week *they* will be able to choose their own words for study. On a daily basis, everyone will copy all 32 words, but they will only have to spell those words which they chose for the test on Friday. Explain that they may choose Group A only; Groups A and B; or Groups: A, B, and C. The idea of self-choice appeals to all levels of children. Don't worry if it appears that all children are choosing only Group A. Believe me when I say that it

will change, and you will find students you never thought could spell choosing 20 and then 32 words. It is a delightful process, especially as word gets out to other classes that they have 32 spelling words to choose from, not just '12'. I do make one stipulation, however, and that is if the students 'bite off more than they can chew', I have the option to cut them down to a lower number of words. When I see they are handling the lower number, I then ask them if they wish to go back to their original choice. If there are any questions as the program continues, we discuss them and settle them together.

Fifth, I give each student a composition book which will act as his/her permanent spelling list. On the first page, we establish the pattern that will be followed throughout the school year. Each spelling list is written and copied with the following information: the page is folded in half so that there will be room for 16 words on a side; the date for the week is entered on the first line; and then the words are copied. Because young children write larger, you will have to work on size differentiation. It takes time, but it can be done and it all helps as the year progresses.

Explain that you will know which words a child chooses by the use of a special symbol he/she makes after each word in the list. For example, one week a circle (o) may be used for the words chosen. A student's spelling list may look as follows:

1. saw o
2. came o
3. jump o

In this way, you will know at a glance how many words each child has chosen. This symbol is used not only in their composition book, but also on their daily spelling work. The symbol is changed from week to week.

Sixth step is the educational and creative part for the teacher. Each day your instructions for the use of these words should vary depending on what you feel is necessary. Children will copy all the words from their spelling list and symbol their choices. On the back side of the paper comes a special assignment utilizing these words, and at the same time teaching another skill you may want reinforced.

Some of the activities you may have your students do are:

1. Write sentences using 10 words, making 5 statements and 5 questions;
2. Alphabetize the words by columns;
3. Rhyme specific groups of words;
4. Add prefixes and suffixes to certain words;
5. Practice cursive writing;
6. Test one another;
7. Define certain words using the dictionary;
8. Write poetry-use rhyming words;
9. Write paragraphs or letters utilizing some of or all of the words on the list.

As you can see, the ideas are inexhaustible and only your imagination will stop you. With this basic weekly list, you can improve your English and writing skills, too.

Seventh is test day. In the morning, remove the lists from the board according to the groups and clip them together. Place 32 new words on the spelling board, and have the children copy them as instructed. You will have to go over this for at least one month to be certain they understand, but the benefits you reap throughout the year will be worth it.

When the test is given, begin with Group A since all children have this list in their choices. (Don't forget to shuffle the words in the group when you give the test.) After the first 12 words have been given, ask that all students who took 12 words turn in their papers now. Then proceed to Group B words doing likewise, and finally to Group C words.

Over the years, I found it best to grade the spelling scores on a percentage basis (100%, 90%, etc.). The children are told how many words they must get correct for a specific grade. The scores would look as follows:

Twelve Words	Twenty Words	Thirty-two Words
12-11 = A	20-18 = A	32-29 = A
10 = B	17-16 = B	28-26 = B
8-9 = C	15-14 = C	25-22 = C

You might ask yourself, "is this process worth the time and effort put into it?" My answer is an unequivocal "YES?" Out of 19 years of teaching experience, I have used this system, or one similar to it, for the past 12. The results I have seen far outweigh the initial work. Some of the obvious results are:

1. A positive self image was enhanced because each child made his/her own choice and was then rewarded with success as they completed their choices successfully.
2. Words used by other groups in reading were recognized by all and, in many instances, challenged the low reader. He/she felt that they could read with any group.
3. With the use of these words, extra work in developing other English skills became effective.
4. Writing assignments improved because students had a ready reference to check back on words they needed to use in writing assignments (their spelling composition book).
5. Students who once dreaded studying spelling were saying, "I didn't have to study much, and I got an A." The constant use of the words became a part of them, and the words were assimilated.
6. Weekly spelling skills improved to the point that rarely was a spelling grade below B issued on their report cards in any of the three groupings.
7. Parents came in and talked with me about the improvement they were seeing in their child's work, not only in the spelling area but other areas of written work.
8. The students work in other areas, such as Social Studies and Science, indicated better spelling skills when turning in written reports.
9. On the Stanford Achievement Tests all students tested 4.6 or better in spelling, and
10. For the past four years our school has given students competency tests in spelling, and all of my class has been 1 to 3 years above grade level.

In conclusion, I feel that the use of this program did accomplish what I had set forth to do. It improved the spelling skills of all my students, challenged the skills of others, and enhanced the entire Language Arts block. The most important by-products were student pride in their accomplishments, the development of a self choice situation, and an improvement in English communication skills. All in all, this is a program that can be used by many and serve a good purpose in the general educational process.

13. Reading and Computer Technology, by Betty D. Roe, Ed.D.*

*Tennessee Tech. Univ, Dept. of Elem. Ed., Cookeville.

In this technological age, much reading and reading skills instruction is being done with students sitting at computer terminals or microcomputers. Reading done at such terminals presents perceptual problems which are new to educators and which need to be dealt with in order to assure a good instructional environment for students. The use of computers in reading instruction also presents educators with other problems that must be addressed if children are to receive the best instruction possible. This writer toured a number of schools which were using computers with students, either for computer-assisted instruction, computer literacy instruction, or computer programming. Observations of the students at work brought to mind a number of questions that must be answered in terms of the use of computers for reading instruction and other reading activities. In this article, some of the pertinent , questions about the use of computers in reading are identified, and some discussion of these questions is offered.

Following are some questions that reading educators need to ask:

1. What effects do adjustments of the brightness and contrast controls of a video display screen have on the child's perception of the printed message?
2. What effects do the different types of displays (dark on light print;, light on dark print; letters: or background colored black, white , green, or amber) have on the child's perception of the printed message?
3. Does the relationship between the position of the screen and the child's face affect the child's perception of the printed material?
4. What effect does reading material presented in all capitals have on the child's: reading success?
5. What effect do the non-standard letter forms used by many microcomputers have on the child's: reading success?
6. What effect does not having an entire page or selection visually available in a more or less continuous manner have on the child's reading success?
7. Is there any justification for using a computer if it simply acts as an electronic page turner or :electronic workbook page?
8. Is there value to drill and practice programs, even though a teacher could do the same thing the computer is doing?

9. Are there things a computer can do during instruction that would be difficult or impossible for a teacher to accomplish?

10. What should be the basis for choosing a computer program for reading instruction?

Careful study of each of these questions by reading educators would be in order. Answers to Questions 1 and 2 can probably only be obtained by carefully designed and controlled research studies, although it would seem likely that some levels of brightness and/or contrast and some combinations of color contrasts would cause more visual stress than others and, therefore, be less desirable. If the basis of personal observations, this educators had the results of such studies, display units use of the computer to provide immediate reinforcement answers on drill and practice could be chosen and adjusted accordingly.

Question 3 would also need controlled studies for a definitive answer to result. However, the writer's observations of children working on microcomputers seemed to indicate that eye-level screens, as opposed to screens which required the children to tilt their heads and look up, were more comfortable for the students and probably produced less muscle strain. In addition, it seems likely that there could be some distortion in perception of the video display when it is viewed from an angle, as opposed to directly in front.

In regard to Question 4, some research in the past on printed materials in capital and lower case letters has indicated that it is more difficult to read materials in all capitals. This finding would probably hold true for print displayed on computer screens, and it is worthwhile to note that some microcomputers and computer terminals use only capitals in their displays. Unless future research shows findings to the contrary, it seems worthwhile to seek display units which feature a mixture of capitals and lower case letters, rather than the ones limited to all capitals for reading and reading instructional purposes.

Different microcomputers and terminals produce letters of varying styles (and idiosyncrasies) on their screens. Question 5 needs to be answered so that equipment using the least confusing forms can be chosen for educational use. The writer observed a first grader who could not match several letters on the keyboard with ones displayed on the screen because they were not shaped the same and a kindergartner who consistently confused the computer's V with a U because the V did not have straight sides.

The importance of answering Question 6 may not be evident until you consider that a child reading in a book can turn back and reread at will when he or she finds a mismatch between what was expected and what the material actually said. This chance to go back and reread to self-correct incorrectly perceived material is important for good reading comprehension. Many computer presentations of reading materials do not allow rereading at all, and some others do not allow it when the students feel the need for it, but only at specified points in the reading.

The answer to Question 7 may well not be empirically obtainable, but it is an important philosophical consideration nevertheless. Having seen students that teachers described as previously

unmotivated working intently on workbook page style computer exercises, and having seen an autistic child who did not respond as well to regular work doing the same; this writer feels that there is sometimes justification for such uses of computers. Each teacher will have to decide upon his or her own answer to this question after observations of such uses in a variety of situations.

The answer to Question 8 must be decided upon in the same way as the answer to Question 7. Once again, on writer feels that for activities for some students while the teacher is busy doing direct teaching with other students is a justified use. Each educator will have to make a decision based upon his or her own experience.

The answer to Question 9 is available through studying current computer instructional materials and observing the classroom use of these materials: A single teacher is usable to give instant feedback to individual students working on practice activities following direct instruction, but a computer can provide such feedback without tying up the teacher with a single child when others need attention. In addition, the visual displays provided with some of the computer, programs: can frequently be more motivational for children oriented to video games and television presentations than verbal reinforcement techniques used by many teachers. However, the quality of programs; reinforcement techniques, and motivational techniques vary greatly, and for every program that offers qualities that would be more beneficial than the typical non-computerized activities used by teachers, there are a number that would be no more beneficial, or perhaps even less beneficial. Computer-assisted instruction is only as good as the software programmers have made it, and, although there are some fine programs on the market, there are also some extremely poor ones.

Based upon experience, observation, and study of the literature, this writer would answer Question 10 in the following way. Ask yourself whether the program is designed to accomplish an objective that you need to accomplish in your reading program. Make sure that the program is aimed at the age group of children that you are teaching. Try out the program to assure yourself that it has no errors of fact,, it offers no undesirable forms of feedback to the students, it does not violate accepted pedagogical practices; and is :easy to use. Brochures about a program or even reviews of it are not likely to give you the information you need to make final decisions about the program. You must see for yourself how the program attempts to meet its stated goals.

Computer technology is a fact in education today. We as educators – must answer questions about how this technology will affect the student's learning in our areas of responsibility.

-o0o-

In meny foren languages, if you can pronounce a word, you can spell it. Why not in English?

Where would we be today without progress?

-o0o-

14. Spelling and Handwriting: Is there a Relationship?, by Michael N. Milone, Jr, Ph.D. James A. Wilhide, and Thomas M, Wasylyk*

* Zaner-Bloser, Inc., Honesdale, PA.

The syndicated columnist Earl Wilson once told the story of the boy who brought home a note from his teacher. The note read, "Your son's handwriting is so bad we don't know if he can spell" (Askov, Otto, and Askov, 1970, p. 109).

This incident is not isolated; it probably happens often each school year. Spelling is assessed primarily through written tests; and it is reasonable to assume that handwriting problems interfere with students' spelling ability. Illegible handwriting makes it unlikely that a student will recognize an error and try to correct it. Moreover, poorly written words: may be unreadable to the teacher and be marked as incorrect even though the student knew how to spell the word correctly.

Despite the logic supporting the connection between handwriting and spelling, there has been little corroborative evidence of an empirical nature. The only research that seems to confirm the existence of the relationship was conducted by Strickling (1973), who compared the oral and written performance of 136 fifth graders. She found that their mean oral spelling score on the Morrison-McCall Spelling Scale was 27.6 words correct out of a possible 40, while the mean written score was 23.3. The correlation between written spelling errors and two measures of writing legibility, were .60 and .56. The difference between written and oral spelling. results and the magnitude of the correlation coefficients were considerably greater than would be expected by chance. Strickling (1973) concluded that:

The lower mean score on the written spelling test was due mainly to handwriting errors because:

- a) Words missed on the written spelling test because of handwriting errors were spelled correctly on the oral test.
- b) The number of words missed on the written spelling test because of handwriting errors was positively correlated with the errors made on the handwriting tests.
- c) When the words missed on the written spelling test because of handwriting errors were added to the written spelling score, the total was essentially the same as the score on the oral spelling test. (p. 3717-A).

Although the results cited above are convincing, they stand alone, as no related research has been reported. The purpose of this study was to expand Strickling's work and discover whether there actually is a relationship between handwriting and spelling.

The current research involved two stages. In Part 1, the handwriting and written spelling scores of 750 students were compared; in Part 2, Strickling's method was repeated with minor variations. There were 129 students :involved in Part 2.

Method

Participants

Students in 40 randomly selected sixth-grade classrooms in South Carolina participated in the studies: The proportion of females to males was 1.01 to 1, and the racial balance in the sample was representative of that found in South Carolina schools: As was previously mentioned, data were obtained from a total of 879 students: 750 in Part 1 and 129 in Part 2.

Procedures

Participating teachers were mailed an information packet that contained all the directions and materials they needed. The teachers administered a spelling test to all the students in their class; 129 randomly selected students also completed an oral spelling test based on the same words: The order of the oral and written tests was alternated so that a practice effect would not influence the outcome of the study. : Students were tested for their oral and written spelling ability using the same list of words; and no more than one week elapsed between administrations of the test., For the oral spelling test, teachers recorded exactly how the students responded.

Completed tests were returned to the researchers for scoring. The number of errors for each spelling test was tallied; the written spelling tests served as the basis for the handwriting evaluation. Legibility was assessed by two trained raters using a 1-to-5 scale, with 5 representing highly legible writing and 1 corresponding to highly illegible writing. Initial rater agreement was approximately 85%; on any sample on which there was disagreement, the raters worked together until a mutually satisfactory score was obtained. The final agreement was 100%.

Word List

Several criteria were used to select words for the spelling test. First, the words had to be understandable to the majority of students. To ensure this, words had to be correctly defined by 50% of the fourth graders sampled in Dale and O'Rourke's research for *The Living Word* (1976). Words understood by this proportion of fourth-graders should be meaningful to the vast majority of sixth-graders.

Second, the words also had to be spelling demons. These demons were selected from Johnson's (1951) classic list or from those featured in popular basal spelling series.

Third, the words had to contain letters or letter combinations that were susceptible to handwriting illegibility. The findings reported by Newland (1932) served' as the guidelines for selecting these words. In his study of cursive handwriting, Newland discovered that more than 60% of illegibilities could be attributed to four types of errors:

1. Failing to close letters (a like u).
2. Closing looped strokes (e like i).
3. Looping non-looped strokes (i like e).
4. Using vertical strokes rather than rounded strokes (n like u).

Twenty words that met all these criteria were used in the spelling test; they can be found in Table 3. The test was administered in a manner with which the students were familiar; the word was read by the teacher, it was used in a standard sentence, and it was repeated.

Results

Part 1

As can be seen in Table 1, there is a strong relationship between handwriting and spelling ability: If a student's handwriting was highly legible, then it was unlikely that the student would make more than two spelling errors. If the student had illegible handwriting, then he or she probably made many spelling errors. More than 70% of the students with a handwriting score of 1 (least legible) had 5 or more spelling errors; more than 50% had 10 or more errors. The pattern was consistent across the range of handwriting legibility; the greater the legibility, the fewer spelling errors that were made.

Part 2

The results of Part 2 are not so clear-cut as those that were found in Part 1. The group as a whole had slightly more written errors per student than oral errors, but there was a gender effect. Girls

made more oral errors than written, while boys showed the opposite tendency, although more strongly.

Considering the number of errors per word does little to clarify the relationship between handwriting and spelling (Table 3). Although there were more written errors per word than oral errors, the difference is neither statistically nor practically significant.

Computing correlation coefficients between word length and the number of oral or written errors per word resulted in an interesting finding. Word length and the number of oral errors were more highly correlated ($r = .71$) than were word length and the number of written errors ($r = .56$). The number of oral and written errors were highly correlated ($r = .96$).

Discussion

The results of Part 1 of this study suggest that there is a strong relationship between spelling ability, and handwriting: students with very good handwriting can spell better than their classmates with poor handwriting. [1] As this was not an experimental study, however, it is inappropriate to suggest that good handwriting causes good spelling; or that improving handwriting legibility will bring about a corresponding change in spelling ability. The strength of the association between handwriting and spelling is such that more than mere coincidence appears to link them but until further research of an experimental nature is conducted, there is no justification in declaring that a causal relationship exists between handwriting and spelling.

The outcome of Part 2 of this study contradicts Strickling's (1974) finding that handwriting illegibilities contribute to spelling errors. The difference between the oral and written spelling scores of the participants in the present study was of neither statistical nor practical significance.

One possible reason for the discrepancy between Strickling's research and the present study is that the words on the Morrison-McCall Spelling Scale were less familiar to the participants than were the words used with the South Carolina sample. : It is possible that students have an easier time recognizing and correcting errors in familiar words, even when written poorly, than they do with unfamiliar words.

Word length and oral spelling errors were correlated more highly than were word length and written spelling errors. More than half the variance in oral errors was accounted for by word length, whereas less than one-third the variance in written errors could be attributed to word length. This finding suggests that oral and written spelling involve somewhat different skills, with short-term memory being a more important component of oral spelling, and there is less opportunity, for self-correction.

It is still too soon to assert, as has Petty (1964), that if "handwriting improves, all written work is facilitated with the result of increased benefits to spelling" (p. 6). Handwriting and spelling appear to be related in an educationally relevant way, but until further research is conducted, the strength of the relationship will remain unclear.

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Table 1

Cumulative percentages of students classified according to handwriting legibility and spelling errors

# of spelling errors	<i>Least legible</i>					<i>Most legible</i>				
	<i>1</i>	<i>2</i>	<i>3</i>	<i>4</i>	<i>5</i>	<i>1</i>	<i>2</i>	<i>3</i>	<i>4</i>	<i>5</i>
0	1.4	4.0	13.6	29.9	52.6	10	48.6	85.5	96.1	100.0
1	2.9	11.0	32.2	57.9	94.7	11	55.8	91.0	96.9	
2	4.3	19.0	46.6	80.4	94.7	12	61.5	94.0	99.2	
3	5.8	24.0	59.9	88.8	94.7	13	67.2	96.0	99.2	
4	7.2	35.5	70.3	94.4	94.7	14	68.6	98.5	99.5	
5	12.9	46.5	78.2	97.2	100.0	15	71.5	99.5	99.8	
6	14.3	59.0	83.1	98.1		16	77.2	99.5	99.8	
7	20.0	69.5	87.9	98.1		17	85.8	99.5	100.0	
8	30.0	75.5	93.3	99.0		18	97.2	100.0		
9	41.5	80.0	95.2	99.0		19	100.0			
<i>Total number of students</i>						<i>90</i>	<i>200</i>	<i>354</i>	<i>107</i>	<i>19</i>

Table 2

Number of errors per student

		Mean	S. D.
Male (64)	oral errors	3.69	3.01
	written errors	4.11	3.29
Female (65)	oral errors	3.91	4.20
	written errors	3.85	3.85
Total (129)	oral errors	3.80	3.64
	written errors	3.98	3.57

Table 3

Number of errors, per word

<i>Word</i>	<i>Oral errors</i>	<i>Written errors</i>	<i>Total</i>	<i>Word</i>	<i>Oral errors</i>	<i>Written errors</i>	<i>Total</i>
asked	20	27	47	friend	18	11	29
battery	24	18	42	hear	4	10	14
beautiful	48	52	100	money	6	2	8
bottom	13	11	24	piece	46	48	94
cabinet	53	56	109	soap	1	4	5
ceiling	59	66	125	suit	5	11	16
circle	26	17	43	their	24	25	49
course	46	53	99	there	9	11	20
cousin	29	32	61	voice	10	6	16
delivery	35	28	63	wear	14	25	39
				Totals	490	513	1003

[1] Ed. comment: It is suggested that poor handwriting is often used as a cover up for inadequate spelling knowledge.

15. If you're not a good speller, take heart, by Andy Rooney*

* Tribune Co. Syndicate, Orlando, Fla, Sentinal, circa Jan. 7, 1983

English is a great language – probably the best, but you have to admit it isn't perfect. Learning to spell in English, for example, can be difficult because it doesn't always make any sense.

The Director of an organization called "Better Education Thru Simplified Spelling" in Bloomfield Hills, Mich has been trying to convince a lot of people that we ought to simplify the way we spell many English words. It's an old idea that's never really caught on, but there are always people who won't give up.

It's easy to come up with examples of inconsistencies in the spelling of our native tongue.

Why, for instance, is "tongue" spelled t-o-n-g-u-e when "lung" is spelled simply l-u-n-g?

This crazy spelling we have makes things difficult to write, right? – that's w-r-i-t-e and r-i-g-h-t, right? Although both are pronounced the same, neither bears any relation to a ceremony or a rite, r-i-t-e; right.

This Better Education Thru Simplified Spelling group wants to know how come f-r-e-e-z-e spells "freeze" but p-l-e-e-z-e doesn't spell "please".

Do we really need the silent "b" in "thumb", the "l" in "could", or the "k" in "knife", or is it just "dumb" spelling?

They want to know why, if t-o is pronounced "to", g-o isn't pronounced "goo". They have a point.

The BETSS organization suggests some simple rule changes for spelling. Among them are:

- Drop the final "e" on words where it doesn't matter. They'd spell "give" g-i-v and "have" h-a-v.
- Drop all silent "b's" as in the words "crumb", "dumb" and "thumb." They'd be c-r-u-m, d-u-m and t-h-u-m. And that's not dum – pupils do it all the time in school. Maybe they have a better idea of what's right than the teachers. At least it's more sensible.
- Spell all "gue" endings in just plain "g." Examples are c-a-t-l-o-g, p-r-o-l-o-g, d-e-m-a-g-o-g and baseball l-e-a-g. What good are these silent letters anyway?
- Endings in "ey" would become "y." A "donkey" would become d-o-n-k-y. "Whiskey" would become w-h-i-s-k-y.
- Drop one of all double final consonants. "Bell" would become b-e-l, "spell" s-p-e-l, "mess" m-e-s.
- Whenever we pronounce the letters "ch" as a "k", they'd spel it with a "k" as in s-t-o-m-a-k a-k-e.
- When "ph" is pronounced as an "f", they'd have us spel it with an "f." "Phone" would be f-o-n-e, "photo" f-o-t-o.

These people advocating simplified spelling have logic and good sense on their side, but they're fighting a losing battle. They just aren't ever going to talk us into spelling "women" w-i-m-m-i-n or "professional" p-r-o-f-e-s-h-u-n-a-l. I think probably they'll win out with words like "telefone" "foto and "tho". "Thru" is already established in many highway signs.

Sentimentally I'm on their side, but I'm never going to change. I'm going to go on misspelling the same words I always have. I lost my big argument in matters like these when I started this column. I said I wanted to leave out the apostrophe in words like "dont", "wont", and "isnt." The syndicate said newspapers wouldn't stand for it, so I haven't changed my spelling.

16. Spellings in Commerce: Logical? Anathema? by Albert J. Mazurkiewicz, Ph.D.*

*Berkeley Heights, N. J.

Influence on the spelling behaviors of adults (Mazurkiewicz and Rath, 1976) suggest that media usages are at least as potent a factor as prior instruction to determine the spellings of words adults recognize as correct spellings. In the case of certain words (yogurt, gelatin, brunette), constant repetitive usage in product advertizing has apparently been of first importance in establishing the primacy of the given spellings. The authors concluded that repetitious use in the media is one viable procedure to establish spelling reforms. It could also be inferred that the spellings of certain words have already been changed to a more regular (one sound-one symbol) form by such usage.

Since such an influence for spelling changes exists, and in the absence of either a concerted action to utilize such sources for a change as a national academy or other such organization to oversee and rule on the direction of spelling reforms, it can be inferred, further, that commercial usages in time could lead to widespread change which might be as contradictory as present spellings or lead to changes which would be inimical to the child's interests in learning to read and spell the language. This contradiction is suggested by the simplification of yogurt and gelatin and the complexity of *brunette* as opposed to *brunet*.

A question on the prevalence of phonetic spellings in trade names, addressed in a companionate study by Mazurkiewicz and Alloway (1975), on items in a supermarket was answered by the findings that 42 (42.08) % of the 6,127 items; exclusive of produce and meats, carried trade names in which the spellings of one or more of such words were identified as more regular or phonetic. The immense number of phonetic spellings without a determination of their logicity, seems to suggest, with their repetitive use in advertizing, that further spelling changes might be expected as usage in print produces an acceptive recognition of them as alternate spellings, a listing in dictionaries as alternate spellings, their wide usage in books and periodicals; and finally, in spelling materials.

The question of the logicity of these spelling changes, addressed in this study, is of importance in determining whether such spellings need to be resisted or accepted within the context of simplifying the child's task in learning to read and spell.

Hypotheses

To define the limits of this study, the following hypotheses were established:

1. That trade name spellings would extend over the range of the forty phonemes usually identified in American English speech.
2. That trade name respellings would focus largely on a limited number of phonemes.
3. That trade name respellings would focus largely on a limited number of words, and
4. That the majority of trade name spellings would represent a simplification of traditional spelling of words toward a more regular, logical, form.

Procedures

The total of 6,127 items identified by Mazurkiewicz and Alloway (1975) were analyzed to establish a corpus of different tradenames. The corpus was then analyzed and classified into groups by the word or words in each trade name which was simplified. The spellings in each group of words was then analyzed and classified by spelling patterns. Each spelling pattern was compared to the frequencies of existence of spelling patterns in the Dewey (1970) and Hanna (1966) corpuses to

determine the direction of the spelling changes; i.e. toward a more frequently used spelling pattern or toward a less used pattern, to establish the logicity of the spelling change.

Definitions and Assumptions

For the purposes of this study, an *item* was defined as any product on the shelves of the A & P Supermarket used in this study and carried in its inventory. The count of items excluded the produce and meat areas. An item was further defined to include each separate brand of the product and each of the various sizes in which the product is marketed. Bread crumbs, for example, as one product had a count of 29. This count included only 5 different brand names, but one brand name, *Roast n Boast*, accounted for an item count of 8, the product being sold under this name in 8 different sizes or varieties. The trade name *Roast n Boast* was, therefore, counted only once in establishing the corpus of different trade names in which a phonetic spelling existed – in this case the use of syllabic *n*.

Logicity of the spelling changes was defined as the adoption of a more frequent spelling pattern as a substitution for a less frequent one or the adoption of a spelling which provides a one sound-one symbol pattern. *Frequencies of usage* of the spelling patterns were identified as those contained in the Dewey (1970) running word and Hanna *et al* (1966) corpuses. The words *regular* and *phonetic* are used as equivalents and are defined to refer to words in which one syllable represents one sound. The word *went*, in which each symbol represents one sound, would be considered regular or phonetic, while the word *high is* irregular since two symbols, *g* and *h* are unsounded. A more regular spelling is defined as one in which a spelling pattern of a higher frequency is substituted for a less frequent one. A word which substituted the spelling pattern *i-e* (37.7% occurrence) for *igh* (8.6% occurrence) would, therefore, be considered to have moved to a more regular or phonetic form. The reverse in a spelling substitution constituted movement to a less regular or less phonetic form. (Data in the instances cited above are taken from Table 10 of *Teaching About Phonics*. (Mazurkiewicz, 1976).

Refining the Corpus

A corpus of 367 different trade names was developed from the 2,578 items having nonstandard spellings carried on the shelves of one New Jersey A & P supermarket. 28 trade names were found which used single letters or numbers to represent words of three or more letters. The substitution of a number for a word was not considered a change in spelling and such trade names as 6-12, 9-lives, A-1 Sauce, were eliminated from consideration. The use of letters in such trade names as RC, QT, V-8 (where V represents vegetables), or B in B Mushrooms (where B in B represents Broiled in Butter) were considered as mnemonic or logographic devices, not spellings, and were also excluded from the study.

An additional two produce names, Psssst (instant shampoo) and Aqua Tee (Shaver Massager) were eliminated since label reading did not indicate that the words were spelling substitutions for any specific word.

Results

A corpus of 337 trade names using 383 nonstandard spellings was identified.

As indicated in Table 1, commercial spellings restrict spelling changes to ten phonemes, the words *of* and *and*, as well as to dropping final or other letters in words. Spelling changes occur most frequently in the spellings of the phonemes /ie/, /ee/, and /k/, in the word *and*, or by dropping letters. Over one fourth (26.9) of the changes that have occurred thus far center around the phoneme /k/ with some change in the usual spelling of *c*, *k*, *ck*, *q* or *x*. A total of 68.4% of all changes occur in relation to spellings of /ie/, /ee/, /k/, and the word *and*.

Table 1*Kind, Number and Percentages of Spelling Changes in Product Names,*

a change in spelling of:	Number of non-standard names	Percent of total	Phoneme	No. of Diff. Trade Names	Direction of Spell. Change
/k/	103	26.9	/sh/	1	0.3
/ie/	51	13.3	/ae/	5	2.6
/ee/	44	11.5	/r/	11	2.9
/oe/	23	6.0	/f/	2	0.5
/uu/	6	1.6	/uv/	8	2.1
/ue/	5	1.3	/and/	64	16.7
			dropping final e	15	3.9
				383	99.9

Tables II, III, IV, V, and VI detail these changes. Table II lists the spelling changes by phoneme and identifies whether the pattern substituted is toward orthographical regularity. The table shows in respect to the phoneme /ie/ that one spelling pattern, *i-e* for *igh*, accounts for almost seventy-five (74.5) % of the total spelling changes. Since the spelling pattern *i-e* is far more frequent (37.7%) in the Dewey (1970 corpus of running words than is the pattern *igh* (8.6%), the direction of this spelling change is orthographically correct, in the direction of a simpler spelling, and to a reduction in the number of alternative spelling patterns available to represent the phoneme.

Table II*Spelling Pattern Substitutions in Product Names by Phoneme*

Phoneme	Substitution	Commercial Spell. Samples	No. of Diff. Trade Names	Direction of Spell. Change
/ie/	i-e for igh	Cut Rite, Diet Rite	14	M R
		Diet Delite, Sta Lite	19	M R
		Scotch Brite, Ultra Brite	2	M R
		My-T-Mite; Nite Lite	3	M R
	i-e for ig	Sine Off	1	M R
		i for y	Mi-Lem, Tri-Fri	6
	i for igh	Hi-C, Hi and Dri	3	M R
	y for i	Ty-D-Bol, Olde Tyme	3	L R*
y-e for igh	Vu-Lyte	1	L R	
/ee/	i for y	Easi-Clean, Fanci-Full	11	L R
	ee for ea	Gleem, Heet	8	M R
	ee for y	Speedee, Squeezee	3	M R
	e-e for ea	Crème	14	M R
	ee for ie	Easter Stickees	1	M R
	e for ea	Soft-Weve	1	M R
	T for ty	My-T-Fine	2	L R
/k/	K for C	Kool, Kreme, Kraft	62	M R
	K for ck	pak	13	M R
Phoneme	Substitution	Commercial Spell. Samples	No. of Diff. Trade Names	Direction of Spell. Change
/K/	K for q, k for ck	Press-Kwik	1	M R
		Buc Wheats	16	M R
	q for c	Bisquick	2	L R
/ks/	x for cks	Stix, Snax	9	L R
/oe/	o for ow	Sno-Cups, Copper Glo	12	M R
	o for ough	Donut	4	M R
	o-e for oa	Flote-Bole	4	M R
	oh for ough	Pla-Doh	1	M R
/ae/	a for ay	Da-Vue, Sta-Flo	4	M R
	ay for ai	Ayds	1	L R

/er/	A for er	Broil-A-Foil	1	L R
	a for er	afta, Wanda Chair	6	L R
	R for er	U-Dek-R-Ate	4	L R
/uu/	u for ue	Tru-Art	1	M R
	u for o	Redu	1	M R
	u for oo	Pruf	2	M R
	oo for ui	Froot Loops	2	M R
/ue/	ue for iew	Da Vue	3	M R
	u for ue	Super Valu	2	M R
/f/	f for ph	Foto	2	M R
/sh/	sh for s	Shur-Lock	1	M R

* M R represents more regular; L R, less regular.

The letter *i* (35.2%) for *y* (8.5 %) and *igh* (8.6%) is similarly in the direction of simplification and to the more frequent spelling even tho the usage of *i* as a final letter representing /ie/ is in marked contrast to orthographic reality. While the letter *i* represents the phoneme /ie/ at the end of unaccented and accented syllables within words, an analysis of the Hanna (1966) Corpus indicates it never represents that sound in the final position of words. The spellings *y* for *i*, and *y-e* for *igh* are a reversal of the general procedure identified above since the spelling patterns adopted are less frequently used. In the case of /ie/, a consistency to adopt a more frequently used spelling is observable in 92.2% of the occurrences identified for the /ie/ phoneme.

The /ee/ phoneme is primarily represented by some variety of the letter *e*, and the letters *i* and *T*, where *T* represents the letter name. The letters *e*, *ee*, *e-e* are used consistently to represent the /ee/ phoneme almost 68 % (67.5) of the time. The substitution of *i* for *y* is orthographically correct (e.g., *ski*) but *i* is found at the end of words only once in the Hanna Corpus (1966: 489) and is among the spelling patterns least frequently used to represent /ee/. The letter *y* represents /ee/ 29.2% of the time in the Dewey Corpus and over 39% of the time in the adjusted count of the Hanna Corpus. The substitution of the capital letter *T* for *ty* represents the first usage encountered thus far of letter name usage to represent the phonemes of a syllable. It is considered a less regular usage since it violates the principles of regularity, established by this study.

Altho the letter *c* is used far more frequently (73.27%) to represent the /k/ phoneme than the letter *k* (12.74%), the letter *k* consistently represents the /k/ phoneme or is silent in all instances of words studied in either the Hanna or Dewey Corpuses. It is therefore considered a more regular usage than the letter *c* to represent that phoneme. The usage of *K* for *C* in *Kool*, *Kreme*, etc. accounts for over 60% of such spelling changes in commercial product names. *K* for *q* and *C* for *CK* are identified as more regular spellings since the usages of *K* and *C* are far more frequent than *q* or *CK* to represent the phoneme /k/. *q* for *c* is identified as less regular on the basis of frequency, while the usage of *x*, representing two phonemes, the /k/ and /s/, can be seen to deviate from the principles of one sound – one symbol established for this study. It is also identified as a spelling used less frequently than *ck(s)* to represent the phoneme string.

/oe/

The usage of *o* for *ow* and *ough* not only is correct from the standpoint of one sound-one symbol, but also based on frequency. The pattern *o-e* is also more regular since it is far more frequent (14.3%) than the *oa* (4.87%) in the Hanna Corpus (1966:608). The pattern *oh*, usually recognized as being used as a word, reduces the number of letters in *dough* to represent the phoneme /oe/, and thus is considered the more regular of the two spellings.

/ae/

The pattern of using the single letter *a* rather than *ay* to represent the phoneme follows the principle of regularity and is the more frequent (44.95% vs. 6.2%) of the spellings. While *a* frequently appears at the end of syllables and represents the phoneme /ae/, its usage is to represent the /a/ phoneme in final positions. The final position usages in commercial product names is therefore orthographically incorrect tho at the same time more regular usages. The substitution of *ay* for *ai* in *Ayds* is a less regular usage since *ai* is used more frequently (17.6%) than *ay* (6.2%) to represent the phoneme.

/er/

All three usages as shown in the table are less regular since each single letter represents two phonemes or produce a distortion from sound representations as seen in dictionaries.

/ui/, /ue/ /f/, /sh/

Based on frequency, all usages are more regular than the spellings they supplant.

A re-examination of the table reveals that only 29 commercial product names deviate from a consistent role of simplification toward the least complex, toward the most frequent spellings used to represent phonemes, or toward the use of the single vowel letter typically used to represent consonant and glided vowel sounds. Over 88% (88.2) of commercial product names in this table follow the regularity principle. It should also be noted that no instance of a spelling change was discovered in respect to unglided vowels.

A second approach to orthographic change in commercial product names is observable in Table III. The table holds these words in which the vowel letters *a*, *e*, and *o* are assigned a diacritic mark to represent the glided vowel phonemes in the words. Four of the usages are considered regular since they follow the procedure of one sound-one symbol and use the traditional symbol to represent the expected glided vowel. The usage of *e* to signal the phoneme /ae/ is considered irregular since three spellings use the French letter (*e* plus acute) to represent the phoneme and, rather than a reduction, represents an addition to the multiplicity of existing spelling patterns. Altho the American spelling of *café* no longer uses the acute, the *e* might also be considered regular by some since its usage would certainly help the reader recognize which pronunciation is required or whether the *e* is silent as it typically is.

Table III

Product names using Diacritics

Phoneme	Substitution	Commercial Spell. Examples	No. of Differ. Trade Names	Direction of Spell. chg.
/ae/	ā for ai	Drāno	1	Regular
	ǎ	Brǎnical	1	Regular
	e	Nescafé, Boucle, Rondele	3	Irregular
/ee/	ē for a	Nestlē, Cēpacal	4	Regular
/oe/	ō for o,	Nōdoz, Compōz	2	Regular
	and o-e		2	

Diacritic mark usage, while identified in only 2.9% of the total product names, is being used more widely than this percentage would suggest. Corporation names such as Apēco, Colēco, etc. exist and such place names as Tōkyō and Ōsaka are typically found so designate on maps. These usages are also regular.

Table IV lists the variety of ways product names spell the words *of* and *and*. Altho pronunciation represented by either *a* or *o* is the unglided /u/ when the /v/ is elided and either of these letters

accurately represents the pronunciation of the word of in colloquial speech, the letter *a* more frequently (15.2%) represents the /u/ sound (Mazurkiewicz, 1976) than the *o* (21.5%). The difference in these percentages suggests that the *o* should be preferred since it begins the word. However, the letter *a* is probably more recognizable as representing /u/ because of its usage to represent the sound in the initial position of words and in the unaccented usage of the word *a*.

Table IV

Spellings of the Words of and and in Product Names.

Word	Spelling	Example	No. of Diff. Usages	Direction of Change
of	-a-	Cup-a-soup	1	M R
	o'	Breast o' Chicken	2	M R
	o	Breath o Pine	5	M R
and	n	Good n Plenty	16	M R
	n'	Brown n' Serve	8	M R
	'n	Burger 'n Gravy	29	M R
	'n'	Fill 'n' Eat	8	M R
	-n-	Frost-n-Swirl	3	M R
	-A-	Rice-A-Roni	1	L R

The most popular spelling of *and* is 'n as suggested by the fact that it alone accounts for 42.2% of the six spellings listed. More accurate, however, is the pattern 'n' since the apostrophe indicates letters omitted at both ends of the word. Since the syllabic *n* is being represented, however, the unmarked *n*, second most popular, is possibly as good as the most popular. The letter *A* in *Rice-A-Roni*, while adequate for this product's name and suggestive of its contents, *rice and macaroni*, is considered less regular since the letter *A* pronounced /u/ in this instance doesn't necessarily suggest the word *and*.

Table V lists the variety, of product names from which the final *e* has been omitted from one of the words.

Table V

Final e Omission in Product Names

activ	stor	Hair Weev	Ry Krisp
bubl	cheez	Liv crème	Shur Lock
Nos Kote	Brut	Pretz-l	Fertl-Sticks
squeez	Enfamil	Thermo-Serv	

Other spelling changes are also apparent when two words are utilized. Since the final *e* has purely a graphical usage following *v* and *z*, the words *activ*, *squeez*, *cheez*, *liv*, *weev* and *serv* are respellings which would be considered regular since the *i* in *liv* follows the generalization that "single vowels followed by one or two consonants are unglided and glided; try the unglided sound first," (Mazurkiewicz, 1976) – no difficulty in accepting these respellings is seen. The words *bubl*, *fertl*, and *Pretz-l*, in which the final *e* in traditional spelling is interpreted as signaling the syllabic *l* can also be considered as reasonable approaches to regularity when the principle of one symbol-one sound is developed or recognized as existing in such words. The elimination of the final diacritic *e* in *Shur*, *Noz*, *Brut*, *Stor*, and *Ry* is seen, in the case of *Shur*, to be effectively supplanted the spelling *sh* for *s* since the diacritic *e* relates to that *s*. (Mazurkiewicz, 1975) The vowel sound in *Nos*, *Stor*, and *Ry* do not depend on the diacritic *e* but, rather, are predictable from the above stated generalization. The word *Brut* is predictable from the above only when it is recognized as a special case whether the letter *u* represents its own glided and unglided sounds and also that of the glided /uu/ among others. The presence of the final *e* adds the information that the *u* is glided, partially reducing uncertainty, and therefore, it seems to serve enough of a useful function to merit its retention.

The analysis suggests that at least 93% of the 15 words have been improved to more regular spelling status.

Table VI lists the words in which letters other than the final *e* are eliminated.

Table VI

Product Names in Which Letters are Eliminated

Letters eliminated	Examples of Product Names	No. of Different Products
g	Lovin Spoonful, Cookin, Gravy Makins	10
t	Coton, Contac, Sof Stroke	5
y	La-Z Boy, E-Z Foil	2
a	E-Z Pack	5
u*	Oven Gard	3
e-y	Saf-T-Nubs	1
se*	Star-Kist	1
e	Freshner, D*Lete, Lectric Shave	6
l*'	Realemon	1
d*	Endust	1
u*	E-Z Por Cap	1
f*	Fluf	1
s*	Jet Glas	1
ne	Ken-L-Ration	1
b*	Liquid Plumer	1

Altho each of the spellings can be justified on one or more bases, only the spellings of *Coton*, *Gard*, *Kist*, *Realemon*, *endust*, *Por*, *Pluf* and *Glas* are considered as more regular, since unnecessary silent letters are eliminated. The use of letter names to represent more than one phoneme is rejected as is resultant spellings which correspond to colloquial pronunciations.

Only 10 (25%) of these product names, those letters marked with an asterisk and the word *Coton*, are identified as more regular. The elimination of silent letters characterize this group.

Conclusions and Implications

The results of the study indicate that trade names typically exhibit logical spelling changes, that is, changes which substitute a more frequent spelling pattern for a less frequent one. The results permit rejection of hypothesis one that trade names extend over a range of 40 phonemes usually identified in American English speech, but the acceptance of the remaining 3 hypotheses: that the majority of trade names represent g simplification of word spellings to a more regular form, trade name respellings focus largely on a limited number of phonemes and on a limited number of words.

A total of 64 of the 383 different product names follow principles which allow their classification as less regular (16.7%) while 319 or 83.3% can be identified as more regular if not wholly regular according to the established criteria. In 88% of the 2,578 names studied, the direction of change was to a more regular, more phonetic form. The greatest number of spelling changes occurred in relation to the letter *c* where *k* was substituted, to the word *and* where syllabic *n* (marked variously) was substituted, and to words in which *igh* appeared where the pattern *i-e* generally was substituted. Frequently used spellings included *rite*, *lite*, *creme*, *Pak*, *Kool*, and *glo*.

Based on the results of this study and within its limitations, it would appear that, in the absence of ratings from an authoritative body, spelling changes used in commerce follow procedures for simplification for the most part which are in agreement with the frequency of spellings within the language. The basic principle which seems to exert most force on these spelling changes is one of simplification to a one sound-one-symbol base. The second principle operating is one in which the phoneme is encoded using the vowel consonant plus *e* pattern. This principle, however, is often

modified to exclude the final *e* where its diacritic functions are superfluous and to rely on the single or geminate vowel for encoding the phoneme.

Since these kind of simplifications allow for a greater percentage of utility of such phonic generalizations as "a single vowel followed by one or two consonants is usually unglided, sometimes glided; try the unglided sound first;" or the secondary diacritic *e* generalization concerning vowels once removed (Mazurkiewicz, 1975), few of these changes are identified as meritorious of negative concern.

Should repetitive usage of over 80% of these trade names lead to changes in equivalency status and subsequently, to acceptability as spelling alternatives, the changes can only be viewed as positive for ease of learning by the child both in reading and spelling. The spellings of commerce can generally be viewed as a beneficial source of spelling change.

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17. Book Review, by Newell W. Tune

Haas, Wm. Editor. *Standard Languages – Spoken and Written*, 1982, Barnes & Noble, Totowa, N.J. 07511, 200 pp. 18.50.

This book consists of a series of lectures delivered at Manchester Univ. by different professors between 1968 and 1977, under the auspices of the Mont Follick Trust Fund. They are all about similar subjects: Linguistic Standards and the Process of Standardization. The editor-author of the introduction, presents the topic which is the very root of the nature of languages-the varying degrees of vernaculars, dialects, and a standard of pronunciation for each language.

Daniel Jones, whose book on pronunciation went thru many editions, disclaimed that his book showed how people *should* pronounce words, but rather the ways they do pronounce English words. He called the speech of Southern British people Received Pronunciation, and recorded it because he found it to be easily understood in English-speaking countries. He did not say RP was a standard of English pronunciation but evidently he had made a significant contribution to the evaluation of a standard English speech.

Vachek tells of a functionalist approach to English orthography. Allerton tells of how dialects can be accommodated to orthography. Mitchell says that it is "more than a matter of 'writing with the learned, pronouncing with the vulgar.' "

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