Ann B. Dobie

ORTHOGRAPHICAL THEORY AND PRACTICE, OR HOW TO TEACH SPELLING

Until a few years ago I, like many teachers of composition, dealt with orthographical errors in student papers by routinely marking "sp" beside each misspelled word and occasionally delivering an injunction to "look it up in the dictionary." Having done my duty, I moved on to other matters, rarely questioning whether further assistance from me was either needed or possible. If I had gone on to consider my role in improving the spelling of my college freshmen and had concluded that I should offer more help than I usually gave, I would have had to reach the unhappy realization that I simply did not know how to do much more that I was already doing. I only knew how to mark the errors and point out the correct forms.

The issue was strikingly brought to my attention when I was asked to serve on a search committee for a new director of the Alumni Office at my university. The applications turned up one candidate with outstanding experience and splendid letters of recommendation from former teachers, alumni, and other persons of prominence in the community. The committee, impressed, was moving towards approval when one of its members pointed out three misspelled words in the applicant's own letter. As the only English instructor of the group, I was neither very surprised nor bothered by the offending words. I stood alone, however. My colleagues on the committee reacted with shock and dismay. They reasoned that anyone who could not submit an application with the minimal correctness of properly spelled words wasn't the person for the job. Needless to say, the position went to another applicant, one with less spectacular credentials but with a correctly spelled introduction to

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Ann B. Dobie, associate professor of English at the University of Southwestern Louisiana, serves as director of Freshman English. She is the author of a number of textbooks, the latest, Comprehension and Composition, *was recently published by Macmillan. She has also published articles on fiction and drama in numerous journals.*

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his work. This small incident led me to acknowledge that the difficulties of English orthography are more perilous than I had thought. I was also forced to conclude that they are widespread. Homonyms, inflections, foreign words, and consonant alternations give even intelligent, well-educated people problems. Honors students as well as potential dropouts find themselves uncertain about how to spell even common words. The fact is that many Americans complete their basic schooling with only a moderately firm grasp of how the language is spelled, and large numbers of Americans graduate from high school and go on to college or work with spelling habits that can at best be called nonstandard. Finally concluding that I could no longer disregard the glaring lack in the spelling skills of many of my students, I set out to survey the recent research on the teaching of spelling and to devise methods to help students who are poor spellers, using a minimum of classroom time.

I found that the problem is not a new one. Benjamin Franklin, hoping to improve the spelling of his new countrymen, undertook to improve the situation in 1767 by trying to bring order to the orthographic confusion of the language (Allred 5). His was only one of many plans to come, for simplifying a system which so many writers have failed to master. None has been notably successful, and although reform is an issue discussed today, the strong resistance met in some quarters coupled with a natural reluctance to embark on troublesome change will probably defeat current efforts towards spelling standardization. William J. Stevens is typical of those who object to reform. He argues that phonetic spelling, the reform most frequently suggested, would probably cause as many problems as it would solve. To cite only one, homonyms would be spelled alike, thus further confusing their semantic differentiation. He also objects to the fact that respelling words phonetically would divorce them from their etymologies, and thus make the language poorer (86).

Faced with the fact that many writers of English spell poorly and with the probability that reform is a distant and unlikely prospect, some educators have advocated simply dropping the issue and admitting the impossibility of teaching it with sufficient effectiveness to justify the time spent on it. Bobbie M. Anthony cites several studies which indicate that the teaching of spelling is useless. She mentions a study from the 1950s which states that an average of twelve minutes a day is sufficient for classroom spelling study. Any more, it says, is ineffective. She goes on to report a study made ten years later which found that, unlike other subjects, spelling does not profit from substantially increased classroom time. Extended periods of study are not paralleled by an increase of spelling achievement. To check those findings, Anthony conducted another study in 1971 that determined that neither teacher nor student variables influence class spelling achievement. It suggested that classroom time spent studying spelling is, on the average, wasted. Her conclusion is, therefore, that spelling should probably be eliminated as a serious concern of the classroom (130-133).

With less scientific arguments many teachers of composition have arrived at conclusions much like those of Anthony. Their position is

understandable if not defensible. They are probably not trained to teach spelling. Their primary concern is with more complex problems of writing—i.e., logic, structure, stylistics. The result is that students continue to make spelling errors and reap the penalties. And, as I learned from my committee experience, the penalties are not all academic ones. Although most people will say that spelling is not a high-level intellectual attainment (Clifford 253), they go right on to make judgments about a writer's intellect based on the accuracy of his or her spelling.

Until recently, spelling research has been primarily concerned with such matters as comparisons between oral spelling and silent spelling, with test-study vs. study-test methods. Current research, however, has involved itself with more sophisticated questions. It has as a consequence learned that the ability to spell is not simply a low order memory task, but a highly complex and active intellectual accomplishment acquired by a comprehensive study of how the English language is represented in writing. Learning to spell, therefore, cannot be restricted to the study of the relationship of letters and sounds, but must take place in the context of general language study. Instruction should provide opportunities for students to explore the ways in which the spoken language is related to the written form and to discover how they can apply that knowledge in spelling. It should not be confined to "spelling programs" or "units."

If, then, spelling is more than a matter of assigned word lists, what general approaches to instruction are available to teachers? On one approach most authorities are in agreement. Researchers repeatedly stress that an inductive approach is preferable to one in which a teacher presents the subject as a series of codified rules. Carol Chomsky speaks providing students with a strategy based on the realities of language, meaning that teachers should help students search for a systematic reason why a word should be spelled the way it is. Chomsky argues that it is more productive to learn how to look for regularities than to memorize the spelling of isolated words (306-309). Richard Hodges argues that an inductive approach is effective because the process is closer to the one naturally used by good spellers. He reasons that because good spellers have intuitively absorbed the basic orthographical principles underlying many words, poor spellers should discover the rules behind spelling for themselves (46).

Two separate studies done in 1975 found that induction is a more fruitful means of study than teacher presentation. They found that if students discover their own mistakes and the reason for a particular spelling, they will adopt the correct spelling more quickly. Robert Fitzsimmons and Bradley Loomer, for example, came to the conclusion that having students correct their own tests is the "single most important factor" in their learning to spell (20).

Earlier research, by Grace Fernald, had already pointed out that spelling is a multisensory process. It brings into play the visual, auditory, and haptic (kinesthetic and tactile) senses. Her work suggests that an effective teaching program should use as many of those senses as possible (32). Believing that English is primarily a visual language, Homer

Hendrickson emphasizes the visual sense for those who would become good spellers. Defining visualization as the ability to see, know, and manipulate some person, place, or experience, he speaks of it as the "highest priority for those who would become good spellers. He goes so far as to state that it is the highest order of thinking that man can do" (2).

A substantial body of data has also been gathered concerning the phonology of English and its relationship to spelling. Although controversy still exists about some of the conclusions that have been drawn, there is considerable agreement about the importance of careful listening in improving spelling. As Carol Chomsky points out, phonological theory has recently produced a more positive view of English orthography than the traditional belief that its irregularity makes it a relatively poor system for representing the spoken language (287). In fact, a 1963 study at Stanford University sponsored by the Bureau of Cooperative Research of the United States Office of Education showed that English orthography closely approximates the structure of the oral code. Using computer techniques to analyze 17,310 words from the "common core" vocabulary, it proved that the spelling of English phonemes is much more consistent than was heretofore believed (Horn 38). In addition, Paul Hanna has reported that more than half of the consonant phonemes have particular spellings that occur 80% or more of the time; thirty of them are represented by thirty different graphic options 84% of the time. Many of the vowel phonemes have particular graphemic representations 80% or more of the time in the lexicon, although twenty-two of them are represented by twenty-two different graphemic options 62% of the time (188,192).

Recent research has also discovered that the development of spelling ability does not happen piecemeal. It is a holistic endeavor in which several aspects of word structure are experienced with each written language encounter: correspondences of sounds and letters, letter sequences, word building, etc.

And finally, as Dorothy Thompson points out, short segments of study are more effective than long ones. Speed should be encouraged in each activity to maintain concentration of the student. The atmosphere should be relaxed enough to allow students to feel free to drill aloud and to make mistakes without fear, but intense enough to move quickly (16).

The ordinary course in composition cannot afford to give over much of its already crowded schedule to the teaching of spelling, regardless of the effectiveness and inventiveness of the general methods and approaches surveyed above. My plan is for a short course in spelling, using only fifteen to twenty minutes of each class. Although a period of three to four weeks is recommended for a class that meets three times a week, an instructor can extend the course, or even shorten it by using selected portions of it. The emphasis is on introducing techniques that students can use on their own over a long period of time. With sufficient self-discipline, students will be able, after this short course, to turn themselves into more confident and effective spellers.

The daily schedule opens with a test of twenty words and an immediate self-check of the test, followed by the introduction of methods for building spelling skills. The test words should be drawn from papers written by the students and grouped so that they fit the skill-building exercises to be taken up that day. The test check is carried on by the use of an overhead projector, with students checking their own quizzes. (Arthur Gates and others have found that testing before studying is an effective way of helping students to find their weaknesses. Because most writers are unsure of their spelling, they cannot tell when they are going wrong (18).) Following Virginia Irwin's practice, each word's problem is discussed as the class goes through the list on the transparency. Color-coded transparencies can be used to aid students in locating the troublesome aspect of a word, but a simpler method is to underline or capitalize the problem spots (1-2).

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After class, students should record their missed words on 3 X 5 cards, one word to a card. Jenevies Sharknas asks students to include the pronunciation and at least one sentence showing how the word is used in context (64). The cards can also be used by the students to quiz each other at the beginning of class each day as everyone gets settled.

Outside of class students should also study each of the missed words using Norman Hall's Letter Mark-Out Corrected Test. That is, they mark out any letter or letters missed in a word, write the correct letter or letters above the marked-out ones, and then rewrite the complete word to the side of the original misspelling. The advantage of the process is that it focuses attention on the parts of the word that are misspelled (477).

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Significantly, a study done by C. G. Rowell indicates that repeated copying of words alone has not been proven to have any positive effectiveness whatsoever (255).

As noted earlier, researchers have found that although each speller has individual eccentricities, several major causes are responsible for the bulk of orthographical errors. James Conely has found four major ones: the eclectic nature of the language itself, mispronunciation of words, confusion of similar words, and mistaking etymologies (243-244). The following skill-building exercises were designed to deal with those problems.

1. ***Sensory Development.*** Students respond positively to learning techniques that offer specific remedies for spelling problems. The most successful, and therefore the most popular ones are based on use of the visual, auditory, tactile, and kinesthetic senses. Many procedures emphasize the first one. For example, following the suggestion of Mary Clifford, students can improve their visual memory by writing a word in the air, using a finger to make the troublesome letters especially large,

or they can write on paper, putting the problem spots in red or some other bright color (261). Leon Radaker emphasizes visualization by asking students to imagine words as if the were on an outdoor movie screen. The image should be stabilized and held as long as possible (370). A similar procedure has a student mentally trace the letter of a word.

Most learning techniques that invoke the auditory sense involve pronunciation. One such procedure has been found to be especially helpful to native speakers who drop the final syllable when they say a word, and thus fail to write the syllable as well. It requires them to emphasize the problem portion of a word as they say it. For example, the person who habitually leaves off the final *-d* of *used* should practice pronouncing the word as "you-said." Mentally visualizing each letter while stressing the syllable reinforces awareness of it.

Delayed copying, as explained by L. A. Hill, combines several senses by requiring students to see, say, hear, and feel the word while studying it. First they look at the whole word, then look away, pronounce it, and write it from memory. Then they check it against the original. The process is repeated if necessary (238).

2. ***Mnemonic Devices.*** The most widely used mnemonic device is association. A time-honored practice, it calls for students to form ridiculous associations that will fix the correct spelling of a word in their memory. For example, principal uses *a*, the first letter of the alphabet; the opposite of *all wrong* is *all right.*

3. ***Word Groups.*** Another method of building skills by classroom activities involves discussion of word groups. The groups can be composed by students or presented on transparencies prepared by the instructor. They can be portmanteau words that have double letters—e.g., *misspell* and *roommate:* they can be words with the schwa sound, ambiguous consonant sounds, or silent consonants. The skill-building exercises used in class should provide strategies for dealing with the group under discussion. Carol Chomsky points out, for example, that when dealing with words that have silent consonants, it is helpful to associate each one with a root word in a different form that does not silence the letter. For instance, the *g* in *sign* is easily heard in *signature;* the *c* in *muscle* is apparent in *muscular* (307). Groups of words that have consonant alternation become easier to spell after the exchange is noted and discussed. For instance, words such as *coincidental-coincidence, pirate-piracy* provide a pattern for other words in which the letters *t* and *c* are exchanged.

Finally, discussion of word families improves vocabulary, syntax, and sentence structure as well as spelling. Elizabeth Carson has her class take a word and compose sentences using it in as many different forms and parts of speech as they can devise (4).

4. ***Phonics.*** The subject of phonics continues to be controversial, with its defenders and disparagers still arguing. However, it can be used to some small extent in classroom work, if only to heighten students' awareness of what they are saying and hearing. Specific activities can begin with the dictation of nonsense words—e.g., *lamash, glothe, smurg-*

ing, words that show that many English locutions have predictable spellings based on frequent sound-letter combinations. Students should be made aware that they can depend on their ears to some degree.

Homonyms and their problems must be addressed at some point in any discussion of spelling. Thomas Pollock, who made an extensive study of about 50,000 misspelled words in high school English papers, found that the third largest group of spelling errors grew out of confusion of homonyms and near homonyms (1-2). When sound alone cannot help the student distinguish between two words, Virginia Irwin's advice is helpful. She says to select the easier of the two words to remember, learn how to spell it and when to use it, then use the second one on all other occasions (1-2).

5. ***Rules.*** The learning of rules and jingles is a less effective method of study than others described here because it is not inductive: it does not allow students to discover for themselves how a word "works." However, if instructors decided to use such techniques, I recommend they follow Thomas Foran's "rules about rules."

a. Some rules should be taught, but only a few, and only those that have few or no exceptions.
b. Teach only one rule at a time.
c. Teach a rule only when there is need for it.
d. Teach rules inductively, and integrate them with groups of words.
e. Review rules frequently.
f. Focus on the ability to use rules, not simply quote them (23-24).

Following the diagnostic quizzes, the discussion, and the skill-building exercises, there must be a final test. In such a "short course" it can take several forms. It can be given by the traditional "teacher calls out the words" process—a time-honored method, but one that does not necessarily test each student on his or her problem words. Coming a bit closer to that goal, the instructor can have pairs of class members test each other, following the drill pattern already established. Of course, the most highly individualized test is the one put on cassette tape for each student. This method is especially effective if the university has a well-equipped writing center.

The final test is not likely to reflect astonishing changes in student spelling. Every teacher knows that significant improvement is a long-term process, and a few weeks of study will not bring miraculous results. This program, however, has a number of aspects that recommend its use. From an instructor's point of view, it provides some individualized instruction without the need for expensive machines. It can be used with large groups or small ones. To teach it requires no special training or expertise, and it can be employed in the traditional classroom over a period of several weeks without seriously impeding other work that must go on there. From the students' point of view, such a program has even more positive aspects, because it gives them specific techniques by which they can continue to learn and improve long after the course is over. In a world that uses spelling as a criterion of judgment, having the means to develop basic spelling skills is no small advantage.

Works Cited

Allred, Ruel A. "Application of Spelling Research." *Curriculum Bulletin* 22 (1966). ERIC ED 061 218.

Anthony, Bobbie M. "Why Keep Spelling in the Curriculum?" *Education* 92 (1971): 130-133.

Carson, Elizabeth M. *English 9*. ERIC, 1974. ED 103 908.

Chomsky, Carol. "Reading, Writing, and Phonology." *Harvard Educational Review* 40 (1970): 287-309.

Clifford, Mary. "Teaching Spelling in High School." *Illinois Schools Journal* 48 (1968): 253-262.

Conely, James. "Speling." *College Composition and Communication* 25 (1974): 243-246.

Fernald, Grace. *Remedial Techniques in Basic School Subjects*. New York: McGraw, 1943.

Fitzsimmons, Robert J. and Bradley M. Loomer. *Spelling, Learning and Instruction*. Des Moines: Iowa State Dept. of Public Instruction, 1978.

Foran, Thomas. *The Psychology and Teaching of Spelling*. Washington, DC: Catholic Education Press, 1934.

Gates, Arthur I. "An Experimental Comparison of the Study-Test and Test-Study Methods in Spelling." *The Journal of Educational Psychology* 22 (1931): 1-19.

Hall, Norman. "Individualize Your Spelling Instruction." *Elementary English* 39 (1962): 476-477.

Hanna, Paul R. "Phoneme-Grapheme Correspondences as Cues to Spelling Improvement." Stanford University School of Education. Report number CRP 1991, 1955. ERIC ED 003 321.

Hendrickson, Homer. "Spelling: A Visual Skill, A Discussion of Visual Imagery and the Manipulation of Visual Symbols Basic Skills in the Ability to Spell." *Academic Therapy Quarterly* 1 (1967): 1-4.

Hill, L. A. "Delayed Copying." *English Language Teaching* 23 (1969): 238-239.

Hodges, Richard E. "The Psychological Bases of Spelling." *Elementary English* 42 (1965). ERIC ED 036 507.

Horn, Thomas D. "Research on Handwriting and Spelling." National Conference on Research in English, 1966. Articles reprinted by NCTE from the December 1964 and various 1965 and 1966 issues of *Elementary English* (1966). ERIC ED 089 362.

Irwin, Virginia. "Reds, Greens, Yellows Ease the Spelling Blues." *Missouri English Bulletin* 28 (1971): 1-8.

Pollock, Thomas Clark. "Misspelling in Grades 9-12." *English Record* 22 (1971). ERIC ED 059 190.

Radaker, Leon D. "The Effect of Visual Imagery Upon Spelling Performance." *The Journal of Educational Research* 56 (1963): 370-372.

Rowell, C. G. "Don't Throw Away Those Spelling Test Papers. . . Yet." *Elementary English* 52 (1975): 253-257.

Sharknas, Jenevie. "I Individualized Spelling." *Instructor* 79 (1970): 64.

"Spelling Made Difficult." *Nation's Schools and Colleges* 1 (1975): 20-21.

Stevens, William J. "Obstacles to Spelling Reform." *The English Journal* 54 (1965): 85-90.

Thompson, Dorothy. "Spelling's Day in the Sun." *Instructor* 85 (1976): 16.