SPELLING RESEARCH

Research on Teaching Children to Spell

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II. Spelling Approaches

Phonemic Approach

Understanding the relationship between letters and their corresponding sounds is an important skill for successful reading and spelling performance. Within the context of reading, letter-sound correspondence (also known as phonemics) allows students to identify the sounds that correspond to the written symbols (letters) in printed reading passages. For spelling, students identify the written letters that correspond to the spoken sounds. Many words in the English language have regular phonemic patterns. Predictable patterns for regular words allow students to spell these words solely on the basis of their letter-sound relationships. For example, the word *hat* has three sounds /*h*/, /*a*/, and /*t*/ and can be correctly spelled using the three letters that correspond with each of those sounds (*h*, *a*, and *t*).

The designers of the ***Spelling Through Morphographs*** and ***Spelling Mastery*** curricula recognized the importance of explicit instruction in the letter-sound relationship to spell high-frequency, regular words accurately. Initial lessons in ***Spelling Mastery*** focus on directly teaching students letter-sound relationships. Even after students achieve mastery of phonemics, ***Spelling Mastery*** continues to provide opportunities to practice those skills while learning more difficult content. Although lessons in the ***Spelling Through Morphographs*** curriculum do not

Whole-Word Spelling Approach

The phonemic approach can be used to spell a large number of regularly spelled words (i.e., words that are spelled just like they sound, such as *hat* and *stop*). Unfortunately, not all words in the English language can be spelled correctly using letter-sound correspondence. For example, the word *phone* cannot be spelled correctly by sounding it out. For these irregularly spelled words, a different instructional strategy is required.

The whole-word approach to spelling typically uses some explicit or implicit learning strategy for students to memorize word spellings. In typical whole-word spelling programs, words are grouped together in a list based on some similarity (e.g., similar beginning sound, like /*wh*/ or /*th*/, or words belonging to a common theme, like words related to states or countries). Students are often required to memorize the words for a test given later in the week.

The whole-word approach to spelling instruction has both advantages and disadvantages. The primary advantage to the whole-word approach is that it works very well for words that are considered irregular. Irregular words are words that cannot be spelled by applying general spelling conventions. Some examples of irregular words are: *yacht*, *quiet*, and *friend*. The disadvantage to the whole-word approach is that it relies on rote memorization for all words, instead of taking advantage of phonemic rules that can simplify the task of spelling. Relying solely on rote memorization for spelling could be compared to requiring students to memorize the answers to all multi-digit subtraction problems instead of teaching them the rule for borrowing *(Dixon, 1993)*. To summarize, rote memorization is not the most efficient strategy for spelling instruction, unless the spelling words are irregular, meaning that they cannot be spelled by applying general spelling rules.

There are two fundamentally different approaches that underlie whole-word strategies for spelling instruction. Implicit approaches to instruction rely heavily on the philosophy that exposure to new concepts will lead to the learning of those concepts. Implicit approaches to spelling instruction give students the information that is to be learned *(exposure)*, but they may not provide much guidance on how to learn the information. The use of weekly spelling lists and tests often is an implicit learning strategy. In this approach, the students are provided a list of words to learn and a date to learn them by, but are not given specific instruction for how to learn them.

By contrast, explicit approaches to instruction follow the philosophy that students need to be guided by teachers through specific steps of instruction that lead directly to learning of a skill or concept.

For high-frequency, irregular words that cannot be spelled by applying phonemic rules, ***Spelling Mastery*** and ***Spelling Through Morphographs*** use an explicit, whole-word approach to spelling instruction. A typical whole-word lesson in ***Spelling Mastery*** begins by introducing students to a sentence that contains irregular words *(e.g., I thought he was through.)*. At first, the unpredictable letters or letter combinations are provided, and students must fill in the missing letters *(e.g., _ _ _ ough_ _ _ _ a_ _ _ _ ough)*.

Presenting the irregular words in this way teaches the students that even irregular words have some predictable elements. Gradually, the number of provided letters is decreased until students are able to spell all the words without visual prompts. Once the sentence is learned, variations are presented, so that students can apply the spelling of irregular words to various sentence contexts *(e.g., She thought about her homework throughout the night.)*. As can be seen, this explicit approach to whole-word spelling instruction leads students through gradual steps toward the goal of accurate spelling performance.

Technical Note: Whole-Word Spelling Approach

Two studies that examined an explicit spelling program, *Pratt-Struthers, Struther,* and *Williams (1983)* and *Struthers, Bartlamay, Bell,* and *McLaughlin (1994)* found that the explicit program was effective for increasing spelling accuracy. In the 1983 study, students increased the correct spelling of journal words from 0% to over 80%.

Morphemic Approach

A morphograph is the smallest unit of identifiable meaning in written English. Morphographs include prefixes, suffixes, and bases or roots. Many words in the written English language can be created by following a small set of rules for combining morphographs. For example, the word *recovered* is made up of the prefix *re*, the base *cover*, and the suffix *ed*. Using the principles that govern the structure of words, the morphemic approach to spelling instruction teaches students the spellings for morphographs rather than whole words and the rules for combining morphographs to

Spelling Through Morphographs and ***Spelling Mastery*** provide explicit instruction in the use of morphographs. Students are taught to spell a small set of morphographs and then learn to combine these morphographs into multisyllabic words. This first step is relatively simple and does not require knowledge of spelling rules. For example, students might learn to spell the morphographs *form + al + ly*, and combine them together to spell the word *formally*. The next step in the morphemic instructional approach requires students to form words that involve previously taught and thoroughly reviewed spelling rules. For instance, when a short morphograph ends with a consonant – vowel – consonant (C-V-C) letter sequence and the next morphograph begins with a vowel, the final consonant is doubled.

These combination rules help students to avoid common spelling mistakes. Students who lack skills using morphographs might have difficulty spelling the words *hopping* and *hoping* (adding the */ing/* suffix to the words *hop* and *hope*). Using the rules for dropping the final *e* and for C-V-C consonant doubling, students will consistently and accurately spell these words (*hop* becomes *hopping* while *hope* becomes *hoping*) and many others that conform to the same morphemic rules. This morphemic spelling approach continues, gradually increasing in difficulty with the addition of new spelling rules and new morphographs. Upon completion of either ***Spelling Through Morphographs*** or ***Spelling Mastery***, students are able to analyze new words that contain morphographs by applying their knowledge of multiple spelling rules.

Technical Note: Morphemic Spelling Approach

Various spelling studies have compared the characteristics of intact groups' spelling skills. These studies have found that better spellers have a significantly better knowledge of morphographs *(Bruck & Waters, 1990; Johnson & Grant, 1989; Waters et al., 1988)*.

Systematic Error Correction

Using the systematic and explicit instructional approaches of ***Spelling Through Morphographs*** and ***Spelling Mastery***, teachers are in a position to identify student spelling problems or errors *(Gersten et al., 1986)*. Error correction procedures provide immediate feedback that students can use to improve their performance *(Brophy & Good, 1986; Kinder & Carnine, 1991)*. Error correction procedures can include a variety of different strategies. Examples include circling incorrect responses on a worksheet or delivering a verbal cue, such as "Double-check your answer." Many curricula ignore the importance of teacher corrections for student mistakes, giving preference instead to allowing (even encouraging) students to discover and learn from their mistakes. Although this discovery learning approach may have some intuitive appeal, research has consistently demonstrated that students receiving teacher-directed programs like ***Spelling Through Morphographs*** and ***Spelling Mastery*** (programs that incorporate systematic error correction strategies) consistently outperform students in self-directed learning programs *(Becker, 1978; Becker & Gersten, 1982)*.

Several different error correction procedures have been used in effective spelling programs. In one program (*Pratt-Struthers, et al. 1983; Struthers, et al. 1994*)

IV. Comparisions

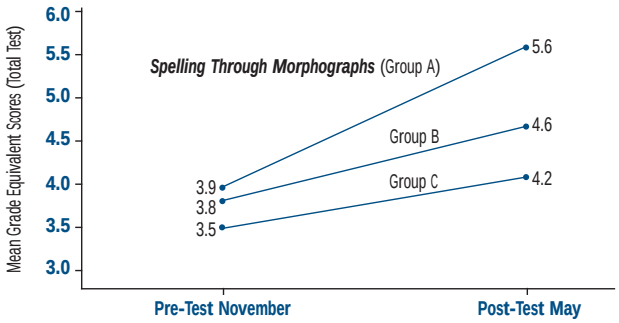
Comparing *Spelling Mastery* and *Spelling Through Morphographs* to Other Spelling Approaches

Students taught to spell using ***Spelling Mastery*** and ***Corrective Spelling Through Morphographs*** (now known as ***Spelling Through Morphographs***) consistently outperform students taught to spell through other spelling programs. *Darch and Simpson (1990)* found that students who received spelling instruction in ***Spelling Mastery*** outperformed students who were taught to use the strategy of imagining themselves correctly spelling words on a movie screen. *Gettinger (1993)* found that students spelled more words correctly after participating in a **Direct Instruction** spelling program (sharing several of the major components of ***Spelling Mastery*** and ***Spelling Through Morphographs***) than students participating in an inventive spelling program (i.e., an instructional approach that encourages students to spell all words phonetically, including words with irregular spellings). Comparisons with more traditional basal spelling curricula *(e.g., Earl, Wood, & Stennett, 1981)* have also demonstrated significant spelling gains for students receiving instruction in ***Spelling Mastery*** or ***Spelling Through Morphographs***.

Several other studies have demonstrated substantial gains in spelling performance by comparing performance both before and after instruction using the ***Spelling Mastery*** and ***Spelling Through Morphographs*** curricula *(Earl et al, 1981; Sommers, 1995)*. For example, *Maggs, McMillan, Patching, and Hawke (1981)* found that directly teaching spelling using ***Morphographic Spelling*** greatly enhanced spelling performance. Both general and special education students made 15-month and 11-month gains, respectively, in spelling performance during an 8-month period. Further, more substantial gains in spelling performance following instruction using ***Corrective Spelling Through Morphographs*** were retained by students 1 year after the end of spelling instruction *(Hesse, Robinson, & Rankin, 1983)*.

In addition, research studies have demonstrated the advantages of using ***Spelling Mastery*** or ***Spelling Through Morphographs*** for a variety of students including general education students at the elementary and middle school levels and students with significant delays in the area of spelling.

In one study, ***Spelling Mastery*** was compared to a district-approved whole word approach in a Title I school. ***Spelling Mastery*** w



Spelling is an important academic skill for students to learn in schools. Further, spelling can be taught directly and systematically. ***Spelling Mastery*** and ***Spelling Through Morphographs*** teach children to spell accurately through teacher-directed phonemic, whole-word, and morphemic instructional approaches. Several evaluations of ***Spelling Mastery*** and ***Spelling Through Morphographs*** have provided strong and compelling evidence for the adoption and sustained use of these curricula. Further these curricula have demonstrated substantial effects on the spelling development of children.

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