English Spelling Makes Sense???

In my 9th year as an elementary teacher I started working with a resource called Real Spelling. It was through this resource that I first encountered the fact that the field of linguistics had long understood English spelling as a well-ordered system for representing meaning.

How could this be?

By working with teaching tools like the matrix (www.realspelling.com) and word sums I learned that in order to understand how spelling works, I had to move beyond my long held assumption that the primary job of spelling is to represent the sounds of words. I learned that instead, the job of any spelling system is to represent the meaning of words to speakers of that language.

Morphology & Phonology

Conventions for letter-sound correspondences are fundamental to English spelling and need to be addressed explicitly and accurately from the beginning of literacy instruction. However, those conventions operate within a system of meaning structure called morphology. This is the system by which morphemes -- the indivisible units of meaning (bases and affixes) -- combine to form words.

As linguist Richard Venezky pointed out long ago, "the simple fact is that the present orthography [spelling] system is not merely a letter-to-sound system riddled with imperfections, but, instead, a more complex and more regular relationship wherein phoneme and morpheme share leading roles" (Venezky, 1967, p. 77).

To teach the role of sound in spelling accurately, we have to learn how letter-sound correspondences work within the morphological system. Consider the word <does>.

Is <does> really an irregular spelling?

All of my previous educational experiences and training supported the assumption that <*>duz> would be a better “more regular” spelling than <does>. Yet, the matrix and word sums (above, right) provided me and my students with a concrete representation of the interrelation of structure and meaning of the <do> and <go> word families. I had clear evidence that my long-held assumption was wrong.

With these tools I could understand (and teach!) why <does> is completely conventional and that <*>duz> would be irregular. This word is clearly built on the base word <do>. Only one spelling has this base and the suffix <*>es>. Instead of trying to help students memorize an irregular spelling, I was able to use words like this to teach my students how spelling works, and how to investigate the spelling and meaning connections in countless words.

Some basic spelling principles that can be introduced with this matrix and word sums

- Every word in English is either a base, or a base with something else fixed to it.
- Bases and affixes can have multiple pronunciations, but use consistent spelling to mark relations of meaning.
- For morphemes to use consistent spelling despite pronunciation shifts, English needs graphemes (letters) that can represent multiple phonemes (sounds).

Investigating the ‘letter-sound’ correspondences of <does>

My original false assumption was based on the fact that I thought <does> had irregular letter-sound correspondences. The matrix and word sums above helped me make sense of the spelling, but are these letter-sound correspondences used in other words too, or are they still irregular?

Questions like this can be used to send a teacher and students off on a scientific quest for evidence in data bases of words on-line, in books or wherever. Such investigations motivate students to look closely at the spelling, meaning and pronunciation of many words.

The evidence bank on the next page confirms that there is nothing irregular about the letter-sound correspondences in <does>. The grapheme <*>s> is very frequently used for /z/. It may not be common, but other words shown in the evidence bank use <*> for the ‘short u’ as well.
**Research on morphological instruction?**

Morphological instruction is an area of growing interest in literacy research. The most important kind of evidence to guide instructional practice comes from meta-analyses. These studies investigate the effects found over groups of studies. Our meta-analysis of 22 studies (Bowers, Kirby, & Deacon, 2012) found that instruction which targeted morphology brought better literacy effects (in word reading, spelling, reading comprehension and vocabulary) than instruction that did not. The effects were greater with younger children (pre-K—2 vs. Grades 3—8) and the biggest benefits were found for less able children (compared to more able children). Also see subsequent meta-analyses by Goodwin & Ahn (2010) and Carlisle (2010).

**Morphology - Vocabulary connection**

Morphology is about the structure and meaning of words. Thus it has been an area of particular interest for vocabulary learning and instruction. Our Grade 4/5 morphological intervention (Bowers & Kirby, 2010) used a structured word inquiry approach with the help of matrices, word sums and flow charts for the suffixing conventions. The steps of this approach can be described like this:

1. **Catch learners with an interesting spelling question.** (e.g., why <g> in <sign>?)
2. **Strategically present a set of words that makes the relevant pattern more salient.**
3. **Help learners hypothesize a solution from carefully presented evidence.**
4. **Guide testing of learners’ hypotheses and identify the precise pattern.**
5. **Practice the identified pattern with appropriate tools** (e.g., word sums, flow charts).

Compared to the control group, students who were taught about morphology using this approach gained in vocabulary, even for words they were not explicitly taught, but which were related to the base of words they studied.

For example, this <sign> matrix was used in our intervention. The word <significant> is part of this family, but is not included in this matrix. The experimental group provided better definitions of <significant> even though they were never exposed to this word.

Studying with matrices and word sums to learn how the spelling system marks meaning within morphological families resulted in children learning about words beyond those they studied.

Treating the English spelling system as an ordered system that can be investigated scientifically moves spelling instruction away from an emphasis on one-at-a-time memorization to a content for engaged critical thinking and problem-solving.

We can teach children how to become effective, independent word learners.

**A few links for teachers**

**Real Spellers:** [www.realspellers.org](http://www.realspellers.org)

This free website is a forum in which teachers, tutors and linguists ask questions about spelling investigations and share their learning with each other.

**WordWorks Literacy Centre:**
[www.wordworkskingston.com](http://www.wordworkskingston.com)

This free website is full of free resources, lessons, classroom videos to help teachers investigate spelling with students.

**Resources**

**Real Spelling Tool Box:** [www.realspelling.com](http://www.realspelling.com)

A comprehensive reference for teachers explaining how English spelling works.

**Teaching How the Written Word Works** (Bowers, P., 2009)


**LEX Grapheme-Phoneme cards**

A set of cards with most English graphemes, the phonemes they can represent.

[http://linguisteducatorexchange.wordpress.com/lex-educational-products](http://linguisteducatorexchange.wordpress.com/lex-educational-products)

**References**


www.WordWorksKingston.com