



To Whom It May Concern:

Northern State University's Reading Clinic is currently implementing strategies developed from Scientific Word Investigation (SWI). SWI is having a profound effect on the education of a growing community of students, teachers, and tutors from all around the world. The premise of SWI is simple: children attempt to learn to read and write through instruction that accurately represents how their writing system works.

Given the evidence presented by Jeffrey and Peter Bowers (2017), Gina Cooke (linguisteducatorexchange.com), and others, some basic principles guide instruction of the written word. For example, literacy instruction should facilitate the following understandings:

- 1) The primary job of English spelling is to represent the meaning of the language to those who already speak the language.
- 2) English orthography is so well ordered for this purpose that the spellings of words can be investigated through scientific investigation.

I was prevented from envisioning these two principles as a possibility by my experience as a student in K-12, then later as an undergraduate in teacher education, and eventually as an educator using teacher resources. As an elementary teacher, I was a dreadful speller (I am most likely dyslexic.). Like most teachers, students, or parents, I assumed that the purpose of spelling was to represent the sound of words, but that English spelling had many spelling exceptions. Based on this false assumption, the only thing I could do as a teacher was rely heavily on rote memorization to teach children to read and spell.

I proudly carried this assumption into my role as a university instructor for fifteen years. In my sixteenth year as a university professor, I encountered a teacher resource called Real Spelling that led me to drop my unproven false assumption about the reading and spelling of English.

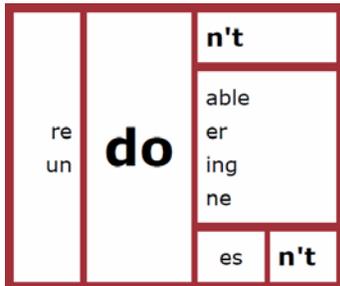
The author of Real Spelling, Michel Rameau, is a linguist with a rich awareness and knowledge of English spelling. He was also remarkably willing to, and very effective at it as well, communicate that knowledge through various individual symposiums and the group 'Spellinars' delivered through synchronous technology.

Real Spelling helped me understand that English spelling is well ordered. Furthermore, everyone should practice the correct construction of meaning (spelling) and the reconstruction of meaning from the structures of an existing text (reading).

Gina Cooke, the author of linguisteducatorexchange.com, taught me, through her 'Lexinars', that morphological structure and written words with word sums and matrixes (a lexical map of a set of words that share the same base) make it possible for children, as young as 5 years of age, to interact and learn the concepts of lexical spelling. Young children, and teachers like myself, are

finally able to understand how spelling works. Word sums and matrixes make sense of many words that I had previously been explicitly taught not to think about, but to memorize because they were irregular and, consequently, not logical. For example, people, friend, and two.

Another word of interest is 'does'. Most educational resources I have seen present the word 'does' as an "irregular" spelling. Pete Bowers, the author of wordworkskingston.com, showed me that it is a perfectly logical spelling. Word sums and matrixes make it evident to young children that this spelling makes sense (do + es → does).



The investigation of families of words (a group of words that share the same base—do, does, done—and are not a group of words that rhyme) is a way of familiarizing children with the principles of how morphophonemic oral language is represented in spelling.

Teachers and children around the world and the United States are learning to refer to morphemes, not by pronouncing them, but by naming them with their spelling. This is so because a base or stem does not have a specific pronunciation until you know which ending goes with it. For example, consider the base <sign> with the word signature <sign + ate + ure> or <cause> and the word because <be + cause>.

The amount of research conducted on morphological instruction has been growing. The initial meta-analysis has found that not only does morphological instruction benefit all learners, but the largest benefit is for the youngest, as well as struggling readers and spellers. This is a contradiction of decades of suppositions suggesting that, morphological instruction should be postponed for struggling spellers and readers, and younger children (Bowers, Kirby, & Deacon, 2010).

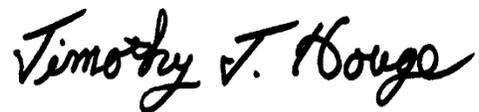
The developments in the research on this instruction are exciting, but the results which were most exciting for me have been in observing children joyously diving into developing their understanding of our writing system through scientific investigation. Indeed, a recent encounter at our reading clinic with a third grader investigating the base element <sect> (to cut) was encouraging. She discovered that an intersection (using the prefix <inter-> (between)) was not something that consisted of stop signs, but rather was something where one road cuts between another. Imagine her excitement when she discovered that an insect is referred to as an insect because it is cut into parts or notches. Suddenly, she said, "Ah, this makes so much sense!"

Anecdotal evidence and testimonials should be considered with some skepticism. Nonetheless, I think we would agree that this comment signals the kind of learning that can only happen when students are introduced to the logic of English spelling.

Most people see my work with teachers and children as primarily being about literacy instruction, but my real passion is offering an experience that deepens their understanding of our unique, rich, well-ordered language.

Currently the South Dakota State Department of Education (DOE) has set a mission to prepare all students for success: that is, all students will graduate from high school ready for college, a career, and life. Consequently, all educators in South Dakota share this mission. The South Dakota DOE has set an aspirational goal of having students entering fourth grade proficient in spelling and reading. The achievement of this aspiration can be partially or even totally realized through the implementation of SWI, beginning with children as young as 5 years of age.

Yours faithfully,

A handwritten signature in black ink that reads "Timothy T. Houge". The signature is written in a cursive, flowing style.

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References:

- Bowers, J. S. & Bowers, P. N. (2017). Beyond phonics: The case for teaching children the logic of the English spelling system. *Educational Psychologist, 52*, 1-18.
- Bowers, P. N., Kirby, J. R., & Deacon, S. H. (2010). The effects of morphological instruction on literacy skills: A systematic review of the literature. *Review of Educational Research, 80*, 144-179.