

Promoting Fluency by Building the Sight Word Lexicon: Direct Phoneme-Grapheme mapping and other Techniques that Facilitate the Process of Orthographic Mapping

Research interest: building and developing students' orthographic lexicons (sight word vocabularies) so students have a growing number of words they are able to read instantly and effortlessly, to support

Reading researcher David Kilpatrick states that once a reader makes these connection with specific words, they do not forget them

If a student forgets words they previously learned, it suggests the words weren't truly learned in the first place because they were not stored for later retrieval

It can be argued that fluency is not based on a reader's speed of recall but on whether the words are truly learned/known.

Instructional Implications

Understanding the process of how children turn unfamiliar words into familiar words that are easily and instantly accessed has broad implications for reading instruction and remediation.

How do words go from being unfamiliar to instantly recognizable?

Linnea Ehri has coined the term "orthographic mapping". The process requires readers to fully analyze sounds in spoken words and to match those sounds to printed words

Spelling becomes mapped onto pronunciations and these "mapping connections" serve as the glue to hold these words in memory

Definition of orthographic mapping: The mental process used to store words for immediate, effortless retrieval. It is the mechanism for sight-word learning."

Involves the unitization of a sequence of letters to where the word is read instantaneously
Not the same thing as memorizing whole words

Good orthographic mappers can easily distinguish between visually similar words such as *fathom, father, farther, fatter, farmer*. It is the sequences of letters they pay attention to

Orthographic mapping starts with the sound and moves from:

1. The word's oral pronunciation, to
2. A segmented representation of the oral word, to
3. The alphabetic characters that align with that segmented pronunciation.

Print to Speech vs Speech to Print

Conventional phonic decoding involves information flowing from letters to sounds

Orthographic mapping benefits from this but involves information flowing in the opposite direction

Speech to Print

Traditional reading instruction has been print-to-speech

Necessary but speech-to-print needs to be taught as well

Involvement of Vision and Hearing in Reading

Emphasis on reading as primarily visual activity dominated reading instruction for decades

Visual memory is used in learning letters and their sounds

Once letters are learned, orthographic memory takes over

The brain does not store words based on visual images

The Big Discovery Regarding Orthographic Mapping

The oral "filing system" is the foundation we use for reading words

There is no separate visual dictionary

We input words visually, but we store them phonologically

Orthographic Mapping is critical to reading fluency and comprehension!

What type of instruction facilitates spontaneous orthographic mapping?

1. Students need the knowledge and skills to enable connections between sound and spelling:
 - Grapheme-phoneme correspondences (letter-sound skills)
 - Phonemic segmentation
 - Strategies for reading unfamiliar words
2. Students need to practice specific skills when reading and spelling words, such as:
 - Decoding/pronouncing unfamiliar words when reading independently
 - Segmenting phonemes in words and matching them to spellings
 - Practicing segmenting, pronouncing and writing syllables
 - Practicing spelling words through oral or written exercises
 - Practicing reading minimal pairs of words that are close in spelling to target words

Applied Research in the Use of Phoneme-Grapheme Mapping & Word Analysis

Gaskins & colleagues (1996/1997)

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