Using spelling knowledge as a framework to improve students’ writing

By Lee Kindler and Jan Hagston

New research has challenged a number of established theories around how people learn to spell and provided us with more effective evidence-based strategies to assist learners. This article looks at some of the latest research and some practical ways to apply it.

Consider the writing sample on page 25 (Figure 1). What might be the most effective feedback that you could provide to this student? What activities might you give this student to build their knowledge of words and improve their spelling?

Drawing from current research, a number of literacy experts have advocated an approach to spelling instruction that draws on a range of linguistic skills. This idea is summarised well by Adoniou (2014): “An effective speller draws upon the entire rich linguistic tapestry of a word to spell it correctly.” And also by Daffern (2015): “Students need to become linguistic inquirers if they are to become autonomous and critical spellers.”

One of the ways to encourage this holistic approach to spelling is by helping students to develop a range of spelling knowledges. Adoniou (2014), for example, identifies five different spelling knowledges that competent spellers utilise: morphological, etymological, orthographic, phonological and visual knowledge. This approach has also informed the design of spelling components in the English Learning Area of the Australian Curriculum.

These spelling knowledges are a useful framework for teachers to assess students’ strengths and weaknesses in spelling and identify areas where students can improve their spelling by building their linguistic know-how.

Let’s have a look at these five spelling knowledges and then think about how we might use them to provide feedback to the writer of this writing sample.

**Morphemic knowledge**

Morphemes are the smallest meaningful linguistic units of a word. They include base words, suffixes and prefixes and indicate changes in verb tense, possession and plurality. For example, the word ‘reacted’ has three morphemes. The prefix ‘re-’ meaning to repeat, withdraw or return, the base word ‘act’, and the suffix ‘-ed’ which makes the word past tense.

While letter-to-sound correspondences can be tricky in English (for example the long ‘e’ sound can be made by the letters ea, ee, ie, ei, e, ey, or y), morphemes are much more consistent. Understanding how a prefix or suffix can change the meaning of a word can be a powerful tool. A good example is the suffix ‘-ed’ which can have the sounds /id/ as in ‘blasted’, /d/ as in ‘seemed’ or /t/ as in ‘jumped’. Knowing that the suffix ‘-ed’ makes a word past tense can eliminate errors made by sounding out.

**Etymological knowledge**

English has adopted spelling patterns from a range of languages including French, German, Latin, and Greek and words with similar origins often can have similar spelling patterns. Understanding etymology can help students make generalisations, identify the meaning of word roots and account for silent letters and irregular spellings.

**Phonological knowledge**

Phonological knowledge relates to the sounds of language and letter-sound relationships (phonics). It includes the ability to hear and manipulate individual phonemes
(phonemic awareness) as well as the knowledge of the different ways that letters go together to make different sounds. It also includes knowing how to chunk parts of words into sound segments.

While phonics is a valuable tool for students, there are twenty-six letters and forty-four sounds in English so knowing which letters or letter combinations make which sounds can be difficult. Only about 50% of all words can be spelled using phonological knowledge (Devonshire, Morris, & Fluck, 2013) so other strategies need to be used for some types of words.

**Orthographic knowledge**
Orthographic knowledge includes an understanding of which letter combinations are possible, how letters are used in particular ways and other spelling conventions. For example, when you add a suffix that starts with ‘e’ (-ed, -er, -es, -est) to a word that ends in ‘y’, change the ‘y’ to an ‘i’. There is a strong overlap with this knowledge and phonological, morphemic and etymological knowledge.

**Visual knowledge**
Visual knowledge involves thinking about whether a word looks right – that is, observing, memorising and recalling the appearance of words or parts of words.

Using visual knowledge can include memorising a word as a pattern, letter sequence, or shape, or remembering part of a word and using other strategies to spell the other parts. It also involves checking that a word ‘looks right’ after it is written.

**Applying the spelling knowledges**
Let’s look at the example of work above using the framework of these five spelling knowledges. When you are working with a student you will gain a more comprehensive understanding of the spelling strategies they use by looking at multiple pieces of work and discussing with them the strategies they use, including for words that are spelled correctly.

**Phonological knowledge**
The student is strongly reliant on phonological knowledge, which is shown in the spelling of the words ‘people’ (peeple) ‘dinner’ (dina), ‘sausages’ (sosages), ‘every’ (evry), ‘salad’ (salid), ‘seemed’ (seemd), ‘photographs’ (photigrafs). They show an ability to analyse the sounds in words correctly and a good understanding of sound-letter relationships.

![Figure 1](image)

For this week, we had 15 people over for dinner. We had a BBQ with sausages and burgers, and we got everyone to bring a salad.

Everyone seemed to have a good time. There were some great photographs on Facebook. We had so much fun left to use the using letters for a week.

However, they have not always chosen the correct letter combinations, such as in ‘though’ (tho).

There are letters in these words that we can’t hear and sounds that follow irregular patterns, so the student could benefit from using other types of spelling knowledge alongside their phonological knowledge.

**Orthographic knowledge**
The student has shown knowledge in this area, representing sounds in letter combinations that are correct.

**Morphemic knowledge**
The student could benefit from building morphemic knowledge. There are several examples where this could have helped to spell words correctly:

- ‘dinner’ (dina) – it would be useful to know that dinner is related to the word dine. The student could then add the suffix ‘-er’. *This is a tricky one because ‘diner’ is very close and often confused with ‘dinner’.*
- ‘everyone’ (evry one) – identifying the base word ‘ever’ would be useful here and then adding the suffix ‘y’. The student would also benefit from knowing that words can be put together to make compound words.
- ‘seemed’ (seemd) – again, it would be useful for the student to find the morphemes in the word (the base word ‘seem’ and the suffix ‘-ed’). It is important for the student to know that the suffix ‘-ed’ makes a word past tense.
Etymological knowledge
The student could have benefited from using etymological knowledge with these words:
• ‘salad’ (salid) – this word can’t be spelled using only phonological knowledge. Etymological knowledge might help to spell it correctly. It comes from the French word ‘salade’ and there are lots of other English words that come from French that have this ending like ‘esplanade’, ‘charade’, ‘facade’, ‘balustrade’. The student will need to remember to drop the ‘e’.
• ‘photographs’ (photigrafs) – this word has the Greek roots ‘photo’ meaning light and ‘graph’ meaning to draw or write. Knowing this might help students to make connections with other words with the same roots and pay attention to the two morphemes in the word.

Visual knowledge
There are some frequently used words in this writing sample that are spelled incorrectly e.g. ‘people’ (peeple), ‘though’ (tho) and ‘were’ (wer). Memorisation techniques that build visual knowledge could be used to spell these words correctly. While there are limitations to using only visual knowledge, forming a memory-bank of frequently used words will improve fluency.

What learning activities would this student benefit from?
In the writing sample, the student has shown that they could improve their spelling by building their morphological and etymological knowledge. Research shows that adult literacy learners often have morphological knowledge but may need assistance to apply it when they are producing texts (Binder et al., 2015). Some activities that could help to do this might include:
• introducing the concepts of prefixes, base words and suffixes
• investigating how words can be built from base words using prefixes and suffixes
• investigating sounds that ‘-ed’ can make and looking at how this suffix changes the meaning of a word
• using base words to make compound words
• identifying spelling rules that can be used when joining morphemes
• observing the spelling patterns of words from different origins
• investigating everyday words that have Greek and Latin roots
• finding the meaning of word roots.

Using visual knowledge and memorisation strategies might also help to build the student’s recall of frequently used words. These could include:
• using the ‘Look, Say, Cover, Write, Check’ technique
• repeated use of the words
• including the words in games
• using a mnemonic for the tricky letters in a word e.g. people eat oranges for the word ‘people’
• overenunciation e.g. saying “p-e-o-ple” when spelling the word.

These ideas are taken from a very small writing sample and to get a better understanding of student needs, it would be best to look at a range of their work. It is also crucial to engage in discussions with students about the strategies and types of spelling knowledge they are using.

The ideas presented in this article are taken from the book Spelling – a strategic approach developed by Lee and Jan and which is available through Multifangled Publications.

References

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In developing *Spelling – a strategic approach*, Lee and Jan have attempted to marry their knowledge of educational theory and research with instructional design skills to produce a user-friendly evidence-based resource.

Image by Jason Leung (p.26) from unsplash.com

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