Learning Difficulties:

Factsheet 7: What is orthographic processing?

Becoming a fluent reader requires both the capacity to utilise sound-based decoding strategies and the ability to accurately recognise familiar letter patterns either as whole words (e.g. was) or within words (e.g. night). The ability to rely less heavily on sound-based decoding strategies is very much dependent on the development of orthographic processing.

Orthography refers to the conventional spelling system of any given language and includes rules around letter order and combinations as well as capitalisation, hyphenation and punctuation. Orthographic processing is the ability to understand and recognise these writing conventions as well as recognising when words contain correct and incorrect spellings.

Students with weak orthographic processing rely very heavily on sounding out common words that should be in memory, leading to a choppy and laborious style of decoding. These students are also more likely to have difficulty applying knowledge of root words in order to decode a variation of a word and confuse simple words like ‘on’ and ‘to’ when reading.

Delays in orthographic processing are also linked to ongoing difficulties in letter recognition and letter reversals. If the shape and orientation of a letter is not fully consolidated and stored in visual memory, then students are more likely to make reversal errors and be unable to recognise when they have made a mistake.

As skilled readers need to recognise words automatically, there is a heavy reliance on orthographic processing in the development of reading fluency. Delays in this area are likely to inhibit a student’s applied reading skills and ultimately affect his/her reading comprehension skills.

In addition, poor orthographic processing will almost certainly result in both a high rate of spelling errors and poor written expression. Students find it difficult to remember the correct spelling pattern for a particular word and don’t seem to benefit from the editing tool, “Does it look right?” Rather, they demonstrate the tendency to over-rely on phonological information, writing words like ‘rough’ as ‘ruff’ and ‘night’ as ‘nite’.

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