

# Learning to spell, 5–8 years: why phonics on its own isn't enough

McMurray, S. (2020). Learning to spell for children 5–8 years of age: The importance of an integrated approach to ensure the development of phonic, orthographic and morphemic knowledge at compatible levels. *Dyslexia*, 26, 442–458.

August 2026

## THE RESEARCH

A summary of Sharon McMurray's research on how phonology, orthography and morphology need to develop together and the implications for teaching spelling.

## HOW TO READ THIS DOCUMENT

Blue panels carry direct evidence and findings from research. Pink panels flag warning signs in children's spelling that call for closer attention. Plain text summarises McMurray's argument.

### EXAMPLE OF SPELLING ERRORS MADE BY CHILDREN 5-6 YEARS OF AGE

~~siad~~ / ~~sed~~ → **said**      ~~brghte~~ / ~~brot~~ → **brought**      ~~becuse~~ / ~~becos~~ → **because**

Each error says something about what a child knows. "siad", 'brghte' and 'becuse' demonstrate developing orthographic awareness of what the word should look like. "Sed", brot and becos are phonologically plausible spelling errors that do not demonstrate orthographic awareness of what the word should look like. McMurray (2020) flags phonologically plausible spelling errors as a warning sign that the child may not be developing orthographic knowledge. Treiman et al. (2019) found that orthographic correctness at 5–6 years of age predicts later spelling ability, Treiman et al (2019) and McMurray (2020) provide evidence that difficulties with orthographic processing can be identified as early as 5-6 years of age. Orthographic processing difficulties lead to difficulties with reading fluency and spelling accuracy.

Children learn to spell by drawing on three sources of knowledge together: phonology (the sounds in words, at phoneme, onset, rime and syllable level), orthography (which letter patterns are used to write those sounds) and morphology (word meanings and meaningful word parts, e.g., the suffix "ed"). McMurray advises that development of these three side by side, is essential for normal spelling development.

Where teaching focuses on sounding out words phoneme-by-phoneme, children who don't pick up spelling patterns from reading (children with orthographic processing difficulties), spell drawing on phoneme-to-grapheme correspondences only, and as a result their phonologically plausible spelling errors become fixed in memory and hard to remediate.

## • Three sources of knowledge

*"It is an oversimplification to label young children as sound-based spellers."*

TREIMAN & BOURASSA (2000), QUOTED IN MCMURRAY (2020)

### ADDED ILLUSTRATION — THE THREE SOURCES OF SPELLING KNOWLEDGE

#### Phonological

**Phonemic:** Hearing and breaking words down into individual sounds, then matching each sound to a letter. b-e-s-t → best

**Onset and rime:** b/est

**Syllable:** in/ter/est/ing interesting

#### Orthographic

Knowing which of several possible spellings "looks right" — the visual patterns of English print.

"because", not "becos"

#### Morphemic

Understanding the meaning of words (free morphemes) e.g. help, foot, ball and bound morphemes (affixes) e.g. un-help-ful. Free morphemes can also be joined together e.g. football.

## • Why a phonics-only approach is not enough

In English there are phonemes that can be spelled different ways, e.g., the 'oo' sound in **flew**, **blue**, **shoe**, **room**, **through**, and letters that can represent more than one sound, e.g., the letter 'a' is pronounced differently in, *want*, *can*, *late*, *draw*. The child has to know what the word looks like (orthographic knowledge) to spell the word correctly. Children with good orthographic processing ability pick orthographic knowledge up implicitly when learning to read. Children who are insensitive to patterns in print, or who have working-memory difficulties, cannot do this. They require intentional teaching which can be done effectively through learning to spell.

25–26% of children consistently failed to meet the reading standard set for the end of Year 2 in England (equivalent to Year 3 in Northern Ireland) from 2016 onwards. This is made up of 9% who failed the phonics test, and a further 16% who passed the phonics test but still failed to meet the reading standard.

DFE PHONICS SCREENING CHECK AND END OF KS1 READING STANDARDS, CITED IN MCMURRAY (2020)

## ● An optimum window: 5–8 years

McMurray's three-year study points to 5-8 years of age being the optimum period for connecting phonemic, orthographic and morphemic knowledge. This timeframe is essential for the successful development of sensitivity to patterns in print, which is necessary for development of orthographic knowledge..

ADDED ILLUSTRATION — THE THREE-YEAR STUDY PERIOD



## ● Two children, two starting points

**Child A: standardised spelling score - 121 at 5-6 years**  
*picked up patterns implicitly*

**121 → 130** (standardised spelling score increase)  
Already showed orthographic and morphemic awareness at 5–6 years — spelling errors like "brghte" for brought demonstrate developing orthographic knowledge, compared with a misspelling like "brot" which does not show orthographic awareness. Reached the test ceiling (130) by 7-8 years.

**Child B: standardised spelling score - 80 at 5-6 years**  
*needed pattern recognition to be taught explicitly*

**80 → 109** (standardised spelling score increase)  
Spelled purely by sound at first ("cilt" for killed), with no orthographic awareness. A gain of 29 standard points followed sustained, explicit teaching of pattern and meaning, not sound alone. Standardized spelling score was 109 by 7-8 years.

*All of the children using the CSP Spelling and Language Programme increased their standardised spelling score from Year 2 (5–6 years) until the end of Year 4 (7–8 years). The effect size was 1.19 and the p-value was  $p < 0.0001$ . The average standardised spelling score at the end of the study was 113, almost one standard deviation above the mean.*

TO UNDERSTAND EFFECT SIZES AND P-VALUES, PLEASE SEE THE LEAFLET EXPLAINING WHAT THESE STATISTICS MEAN.

## ● What this means in the classroom

- Ensure that children develop pattern recognition from 5-6 years through teaching onset and rime patterns . (Stage 1, CSP Spelling and Language Programme. [www.readwritecompany.com](http://www.readwritecompany.com).
- When teaching onset and rime patterns, teach the associated morphemic knowledge — for example, the orthographic rule for adding the morpheme "-ed" and "-ing" to regular verbs. (Stage 2, CSP Spelling and Language Programme .[www.readwritecompany.com](http://www.readwritecompany.com).
- From 5-6 years of age, if words a child can read are spelled using letters that do represent the sound, but they are the wrong letters, then this is a warning signal that the child cannot acquire orthographic knowledge implicitly from reading experience, e.g. high-frequency words spelled purely by sound. If the child can read 'said' but spells it, 'sed' then this is a warning signal. Unlike the incorrect spelling 'siad' which shows developing orthographic awareness.

## REFERENCES

McMurray, S. (2020). Learning to spell for children 5–8 years of age: The importance of an integrated approach to ensure the development of phonic, orthographic and morphemic knowledge at compatible levels. *Dyslexia*, 26, 442–458.

Treiman, R., Kessler, B., and Caravolas, M. (2019). What methods of scoring young children's spelling best predict later spelling performance? *J. Res. Read.* 42, 80–96. doi: 10.1111/1467-9817.12241