

## Cognitive Linguistic Features Underlying Spelling Development in a Second Language: A Case Study of L2 Spellers in South Africa

**Authors :** A. Van Staden, A. Tolmie, E. Vorster

**Abstract :** Research confirms the multifaceted nature of spelling development and underscores the importance of both cognitive and linguistic skills that affect sound spelling development such as working and long-term memory, phonological and orthographic awareness, mental orthographic images, semantic knowledge and morphological awareness. This has clear implications for many South African English second language spellers (L2) who attempt to become proficient spellers. Since English has an opaque orthography, with irregular spelling patterns and insufficient sound/grapheme correspondences, L2 spellers can neither rely, nor draw on the phonological awareness skills of their first language (for example Sesotho and many other African languages), to assist them to spell the majority of English words. Epistemologically, this research is informed by social constructivism. In addition the researchers also hypothesized that the principles of the Overlapping Waves Theory was an appropriate lens through which to investigate whether L2 spellers could significantly improve their spelling skills via the implementation of an alternative route to spelling development, namely the orthographic route, and more specifically via the application of visual imagery. Post-test results confirmed the results of previous research that argues for the interactive nature of different cognitive and linguistic systems such as working memory and its subsystems and long-term memory, as learners were systematically guided to store visual orthographic images of words in their long-term lexicons. Moreover, the results have shown that L2 spellers in the experimental group (n = 9) significantly outperformed L2 spellers (n = 9) in the control group whose intervention involved phonological awareness (and coding) including the teaching of spelling rules. Consequently, L2 learners in the experimental group significantly improved in all the post-test measures included in this investigation, namely the four sub-tests of short-term memory; as well as two spelling measures (i.e. diagnostic and standardized measures). Against this background, the findings of this study look promising and have shown that, within a social-constructivist learning environment, learners can be systematically guided to apply higher-order thinking processes such as visual imagery to successfully store and retrieve mental images of spelling words from their output lexicons. Moreover, results from the present study could play an important role in directing research into this under-researched aspect of L2 literacy development within the South African education context.

**Keywords :** English second language spellers, phonological and orthographic coding, social constructivism, visual imagery as spelling strategy

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