READING EGGSPRESS SPELLING PROGRAM

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"What is required for automaticity of recall is spelling instruction that is explicit and systematic, focusing on exploring patterns that can be detected in the sound, structure, and meaning features of words, and thus reinforcing and consolidating children's understanding of how the spelling system works." (Mullock, 2012, p.173).

The challenges of learning to spell in English are widely documented in literature (Goswami, 2005, Graham Morphy, Harris, Fink-Chorzempa, Saddler, Moran, Mason, 2008; Mullock, 2012; O'Sullivan, 2000; Reed, 2012; Westwood, 2013). Up to one third of students fail to read and spell to a reasonable standard (Graham et. al., 2008; Westwood, 2008). A lack of understanding can make the English language seem like a chaotic and formidable mountain to climb (Simonsen & Gunter, 2001). However there are consistencies, regularities and patterns that provide some scaffolding and order to the learning experience (Invernizzi & Hayes, 2004; Kessler, 2009; Kessler & Trieman, 2003; Mullock, 2012).

Studies illustrate the need to teach spelling in a systematic and explicit way. A growing body of research links positive benefits in using multimedia and online software to build and improve literacy skills (Chera & Wood, 2003; McKenna, Reinking, & Bradley, 2003) and particularly spelling improvement (Wanzek, Vaughn, Wexler, Swanson, Edmonds, Kim, 2006; Wu & Zhang, 2010). The **Reading Eggspress Spelling program** provides teachers with the ability to individualise instruction for the multitude of varying needs that exist inside their classrooms. The **Reading Eggspress Spelling program** is explicit and systematic with a focus on spelling patterns, structure and meaning features. The lessons allow students to learn, practise and consolidate their understanding of how the spelling system works. The program offers interactive online activities as well as printable worksheets that consolidate student learning.

The process of spelling

English has 1120 spellings of 44 phonemes that are represented by only 26 letters (Devonshire, Morris & Fluck, 2013). Graves (2004) estimates that books children read at school expose them to an excess of 100 000 words (p.117), Bloom (2002) puts the number at between 40 000 and 60 000 (p.25). These estimates illustrate the enormity of the task encountered by students. Rote learning this number of spellings is an inconceivable task. Learners need a systematic way of encoding to equip them to spell new words across many domains.

Though reading and spelling are inextricably linked they are two different cognitive processes (Fletcher-Flinn, Shankweiler & Frost, 2004; O'Sullivan, 2000). Reading involves grapheme-to-phoneme matching whereas spelling needs phoneme-to-grapheme mapping. The phoneme-to-grapheme mapping required for spelling is more ambiguous than grapheme-to-phoneme mapping needed for reading (McGeown, Johnston & Moxon 2014). In other words, matching the sounds you hear to written spelling is harder than reading the same words in print.

Approaches to spelling instruction

Whole-word, phonemic knowledge and morphological awareness approaches

Westwood (2013) synthesised international research on spelling and the dominant three approaches to spelling instruction. The *whole-word approach* focuses on common words that are phonetically irregular. This relies on the memorisation of high-frequency words (Goswami, 2005). The *phonemic knowledge approach* promotes identifying patterns and generalising these into rules that can be applied to similar words (Goswami, 2005). The *morphological awareness approach* looks at teaching spelling using meaningful units of words and then stringing these together to create multisyllabic words (Devonshire & Fluck, 2010). Through sustained explicit morphological instruction, students are made aware of the layers of the English language.

Strategic approach

Learning to spell requires knowledge of all three areas of the English spelling system as part of a continuum of learning about language. *The strategic approach* integrates the three metalinguistic skills (Westwood, 2013) and is well-documented in literature (Faber, 2010;

McMurray, 2006; O'Sullivan, 2000; Schlagal, 2002). Systematic explicit teaching of all three metalinguistic skills provides students with a how-to approach where they learn to analyse new words and steadily improve their spelling capabilities.

Features of the Reading Eggspress Spelling Program

Systematic explicit teaching

The Reading Eggspress Spelling program was created as a continuum of systematic instruction in line with contemporary research (Invernizzi & Hayes, 2004; Schlagal, 2002). It acknowledges that spelling needs to be consciously studied, taught and practised as a key linguistic skill (Bear, Invernizzi, Templeton, Johnston, 2004; Ganske, 2000; McNeil & Kirk, 2013). There are 216 lessons in the program focused on common spelling rules and strategies developed in a logical sequence to ensure students are consistently building on their prior knowledge. Each lesson begins with explicit teaching in video format which can be used as a whole class teaching tool or watched by individual students in class or as part of assigned homework. Accompanying each lesson is a pair of worksheets that are tailored to the spelling list and the spelling strategy taught in the lesson. These help to reinforce the lesson and also provide the muscle memory practise that handwriting words provides.

Uses all three metalinguistic skills

Whole-word

The whole-word approach works well for words which do not conform to a regular spelling pattern and are difficult to learn using phonemic or morphemic knowledge. **The Reading Eggspress Spelling program** uses a range of memorisation games to help students visualise these high-frequency words. This method is used selectively as visual recall alone has a high cognitive load (McMurray, 2006).

Phonemic knowledge

The Reading Eggspress Spelling program develops phonemic awareness by building students' abilities to hear and recognise the individual phonemes in words and then encode that knowledge into spelling (Beck, 2007, p.18). Approximately 80% of English words can be encoded if you look at commonly occurring letter sequences (Westwood, 2013, p.19). This approach is used for groups of words that follow similar patterns.

Morphemic knowledge

Morphemic knowledge is seen as a critical skill in helping not only with spelling but also meaning and grammatical function (Bowers, Kirby & Deacon, 2010; Carlisle, 2003; McMurray, 2006). There is consensus in literature and studies that morphemic knowledge is advantageous for spelling improvement (Bowers et al., 2010; Devonshire & Fluck, 2010; Nunes & Byrant, 2006). **The Reading Eggspress Spelling program** uses this approach when examining groups of words with the same root word and the multitude of ways affixes affect words.

Graded differentiated word lists

Research shows that carefully crafted word lists help children learn how to spell words when they are well-organised (Schlagal, 2002). Mullock (2012) identified that word lists based on the regularity of orthographic features "facilitate awareness, understanding and application of spelling patterns" (p.181). The **Reading Eggspress Spelling program** uses carefully crafted word lists, each one based around the sound, structure or meaning features of words. These are organised into a program of work that is systematic and explicit and aimed to increase students' awareness and understanding of the regularities of the English language.

Programs can have adverse effects if they do not match the developmental level of students (Mullock, 2012, 174). Fresch's (2003) study saw teachers acknowledge the need for differentiated word lists and programs of study. In the **Reading Eggspress Spelling program**, teachers have the ability to assign their students to any level within the program – with content graded from Level 1 – 6. Supplementary to the online program are worksheets for each lesson at each level. These activities are scaffolded by including the core list words as well as an additional challenge section for students who need to extend their spelling knowledge.

Adaptive

Randi & Corno (2005) assert the success of any educational program is dependent on instruction that is responsive to the needs of students. Spelling instruction is a space where the adaptations made for students can affect the trajectory of their future writing success

(Graham et al., 2008). What is most challenging is how to differentiate for learners across a wide spectrum of needs. Technology that adapts to personalise instruction for each student is advantageous for teachers (Hassel & Hassel, 2012; Wolf, 2010). In **the Reading Eggspress Spelling Program** each lesson begins with a core list. Once students achieve competence with this basic core list, they progress to a more difficult set of words. These harder words follow the same rule or generalisation. Students who need additional extension can progress to a third challenging list of words to stretch their spelling skills further.

Reading Eggspress Spelling strategies

The **Reading Eggspress Spelling program** uses a focused set of spelling activities to build a range of strategies. Students learn and manipulate these strategies online in interactive tasks as well as through printable worksheets that accompany each lesson. Both practice opportunities afford students time to use the key skills below, each of which is rooted in sound pedagogical research. The core activities used in the **Reading Eggspress Spelling program** include:

Proofreading

Kervin (2002) argues the benefits of proofreading as a powerful strategy to help develop competent and confident spellers. Kervin connects proficiency in proofreading to assisting the other major areas of literacy development of reading and writing. We chose to integrate this strategy into our program as it is a self-directed, learner-centred approach with proven results for success.

Visual memory

We included the *Look-say-cover-write-check* as an online and worksheet component as research outlined the benefits of this strategy (Westwood, 2008). As well as creating a visual memory of the word, this skill serves a dual purpose in creating a self-correction aspect and developing a kinaesthetic memory which Schlagal (2002) highlighted as being of paramount importance.

Definitions

Schalagal (2002) asserts that though having morphemic understanding of words is important, looking up dictionary meanings where meaning will not add to the understanding of a word is ineffective. We have integrated this knowledge and included a selection of words for definition where the etymology and morphological structure will benefit orthographic understanding.

Word families

Westwood (2008) identified analogies as strong strategies for helping to encode and decode words. In particular he highlighted the appropriate and effective use of word families to boost spelling through recall of common elements in words (Westwood, 2008, p.39). In taking this information on, words were grouped together in families to accentuate visual and morphemic commonalities to aide accurate spelling encoding.

Word sorts

Ganske (2006) identifies categorising as one of our basic forms of cognitive abilities. This categorising skill is pertinent to word sorts which Mullock (2012) & Ganske (2006) perceive to be of optimal importance for spelling development. Word sorts have been integrated into the program as the concept of grouping together like ideas or objects helps learners make sense of the world around them.

Conclusion

There is a broad research base for best practise in spelling instruction. Research supports the explicit and systematic teaching of key spelling strategies to assist children to become more proficient spellers. The **Reading Eggspress Spelling program** is explicit and systematic with a focus on spelling patterns, structure and meaning features. The lessons allow students to learn, practise and consolidate their understanding of how the spelling system works. With the growing usage of technology in the classroom, studies show that online software can benefit literacy skills and teachers need programs that can be tailored to the individual needs of each student. The **Reading Eggspress program** effectively allows teachers to simultaneously teach, monitor and assess students on an independent basis for the multitude of needs that exist inside their classrooms.

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