

# Writing Pedagogy in the Senior Primary Classes

## Knowledge, Skills and Processes for Writing

Dr. Eithne Kennedy  
Institute of Education, DCU

Dr. Gerry Shiel  
Educational Research Centre

# WRITING PEDAGOGY in the SENIOR PRIMARY CLASSES

## Knowledge, Skills and Processes for Writing

**Eithne Kennedy & Gerry Shiel, 2019**

*A book is made from a tree. It is an assemblage of flat, flexible parts (still called "leaves") imprinted with dark pigmented squiggles. One glance at it and you hear the voice of another person, perhaps someone dead for thousands of years. Across the millennia, the author is speaking, clearly and silently, inside your head, directly to you. Writing is perhaps the greatest of human inventions, binding together people, citizens of distant epochs, who never knew one another. Books break the shackles of time--proof that humans can work magic.*

*(Carl Sagan)*

### Introduction

Writing is a fundamental human activity. We write to fulfil many purposes in life: to create, amuse, inform, stay in touch, explain, understand, persuade, remember, learn, report, influence or discover new insights. As Sagan in the quote above notes, writing records our thinking, reaches through the mists of time and leaves our unique imprint (print or digital) on the world for generations to come.

Ireland is known the world over for its literary tradition and contributions to the literary canon. While few will become literary giants, writing plays a fundamental role, be it major or minor, in whatever career path we choose in life. The capacity to write well is also fundamental to success in school, which in turn supports individuals in discovering and reaching their potential in life. In 2003, the US National Commission on Writing (p.11) argued: ‘disciplined writing is the most valuable job attribute of all: a mind equipped to think. Writing today is not a frill for the few but an essential skill for the many’.

Troia, Lin, Monroe & Cohen (2009, p.77) contend that almost forty years ago a ‘paradigm shift occurred in writing instruction’ when process writing approaches (e.g. Graves, 1981, 1983, 1994; Calkins, 1986, 1994) rooted in the complexities of real classrooms were disseminated. Neuman and Shanahan concur and in a review of the 13 most influential studies in literacy (1997, p.209) argue that:

*before Donald Graves's research (1981), elementary writing, if taught at all, was dominated by grammar, spelling, and usage...At a time when many teachers were wondering what to do with this long-neglected aspect of the curriculum, Graves's research dramatically created an attractive approach to elementary writing instruction.*

In Ireland, though process-based approaches to the teaching of writing have formed part of the national curriculum for the past twenty years (e.g. NCCA/DES, 1999; NCCA, 2015; NCCA 2019), the teaching of writing using such approaches has been identified as a challenge (DES, 2005; NCCA, 2005; Eivers et al., 2010). More recently, surveys of teachers participating in the National Assessments of English and Mathematics (Kavanagh et al., 2015) found that almost half of pupils (44%) were taught by teachers who reported that professional development

for the teaching of writing was a high priority for them. In the same study, just over half (51%) of pupils were taught by teachers who indicated that they were confident teaching writing as a process. The remainder were taught by teachers who reported they were somewhat confident (46%) or not confident (4%). Dimensions of writing development which teachers indicated they would like support with include creative writing, the writing process, writing genres, development of an English writing plan, and engaging boys in writing (Kavanagh et al., 2015). With the current revision of the primary curricula underway, it is timely to review recent research and practice in relation to the pedagogy of writing.

This paper is divided into four major sections. The first section examines theoretical models of the writing process, the role of self-efficacy in writing and genre theory. The second section explores the implications of the models for writing pedagogy and explores research on effective evidence-based practices for implementing a process-based approach to writing in the senior classes of primary school. The third section addresses formative and summative assessment of writing. Drawing on the research presented in this paper, the final section highlights key recommendations for the pedagogy of writing.

## **Section One: Writing Models and Role of Self-Efficacy in Writing**

*[A] writer can confront a staggering hierarchy of problems, including how to generate and organize task-relevant ideas; phrase grammatically correct sentences that flow; use correct punctuation and spelling; and tailor ideas, tone, and wording to the desired audience (Deane et al., 2008).*

According to Graham, Gillespie and McKeown (2013, p. 4), writing is “a goal directed and self-sustained cognitive activity requiring the skilful management of (a) the writing environment; (b) the constraints imposed by the writing topic; (c) the intentions of the writer(s); and (d) the processes, knowledge, and skills involved in composing”. Hence, writing is a complex problem-solving process (McCutchen, Teske, & Bankston, 2008) and depends, at least in part, on the writer’s understanding of and experience with the writing process and with the various skills involved in composing a text. This section describes the knowledge, skills and processes involved in writing.

### **Models of the Writing Process<sup>1</sup>**

A series of models of the writing process have been published since the early 1980s (e.g., Hayes & Flower, 1980; Bereiter & Scardamalia, 1987; Berninger & Swanson, 1994; De La Paz & Graham, 2002; McCutchen, 1996; McCutchen, 2000). These models provide an internal representation of how writers write. They describe how such processes as planning, translating, reviewing interact at different stages and the order in which they are acquired. Such information can help teachers to support writers in developing such knowledge, skills and strategies and in understanding learning outcomes for writing in the curriculum (NCCA, 2019). Summarising these models, Alamargot and Fayol (2009) note that writing (as composition) involves:

---

<sup>1</sup>The models considered in this section are cognitive or process models. Instructional models for teaching writing are examined in the second main section.

- drawing on two main types of knowledge – the knowledge required by the topic of the text; and linguistic knowledge (lexical, syntactical and rhetorical knowledge)<sup>2</sup>
- short-term memory, to maintain and re-organise information
- a dynamic interaction, whereby the text being produced depends on the goals that have been set, the intended audience, the conditions of the writing task, and the text that has been produced so far
- engagement in key processes of planning, *translating* ideas into mental linguistic representations, *transcribing* those representations into words, and revising
- the co-ordination and management of the writing task to ensure that processes are implemented appropriately, and writing is fluent.

### **Key Writing Processes: Translating and Transcribing**

*Translating*, turning ideas into language, is reliant upon the linguistic experience and knowledge of the writer; without adequate knowledge and experience with words, sentences and larger discourse (text) units, young writers will have difficulty translating their ideas or meaning into correct grammatical strings.

*Transcribing*, a sub-process of translating, is the act of putting the grammatical strings onto paper (or screen). It plays a crucial role in early writing development. Young writers need to develop fluent and automatic handwriting, keyboarding, and spelling skills to make transcription more automatic.

Writing models are often represented pictorially. Figure 1 shows Berninger and Swanson's (1994) revision of Hayes and Flower's (1980) model, adapted to better describe younger children's writing processes. This model highlights the distinction between pre-planning (advanced planning) and the planning that writers engage in as they write or review words and sentences (more localised planning). Pre-planning typically involves a consideration of the requirements of the writing task (topic, audience and plans for writing, such as drawing on knowledge of specific genres or discourse types) and results in the generation of ideas, organisational schemas and goals (Berninger, Fuller & Whitager, 1996). Online (during writing) or offline (post-writing) planning involves making decisions on word choice, sentence structure, and/or discourse structure. Offline planning (post-writing) may also result in revisions to writing.

In their model, Berninger and Swanson include translating or mapping ideas into grammatical strings of language, which are then transcribed into text by applying rules of spelling and good writing form (capitalisation, punctuation, well-formed letters etc.). For adult writers, the translation process can be a bottleneck that slows down writing fluency as they struggle to come up with new ideas. For children, transcription can be a bottleneck (for example, if they are emergent writer or struggle with handwriting and/or spelling in senior classes) (Hayes & Olinghouse, 2015).

---

<sup>2</sup> Lexical knowledge refers to the meaning of words in a writer's lexicon. Syntactical knowledge is the knowledge of how words are combined in phrases and sentences (e.g., the order in which words are spoken or written); rhetorical knowledge refers to a writer's understanding of the audience, purpose or context of writing.

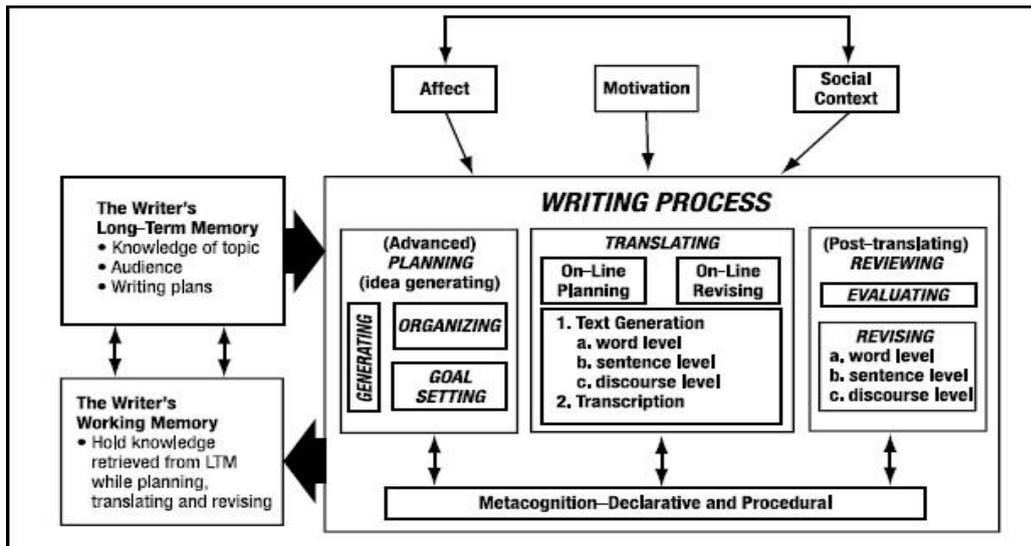


Figure 1: Berninger and Swanson's (1994) model of writing, adapted from Flower and Hayes (1980)

A useful distinction in thinking about children's writing processes is that between *long-term memory* and *working memory*. Long-term memory comprises knowledge of topic, audience and writing plans (often based on previous reading and writing experiences). Working memory holds knowledge retrieved from long-term memory, and is drawn on during planning, translating and revising (see left side of Figure 1). Young children with limited experience of writing may not have the short-term memory capacity to plan or revise their writing as they focus their efforts on transcription. Conversely, it has been argued that efficient management of the processes of writing within the limits of short-term memory is essential to producing good-quality texts (Breetvelt, van den Bergh, & Rijlaarsdam, 1994; Levy & Ransdell, 1995).

The *knowledge* required for writing (sometimes described as writing schemas) is typically stored in long-term memory. Included are strategies for producing texts; knowledge about the properties of the text to be written (genre, length, format, tone); and knowledge of the properties of genres (arguments, narratives, expositions etc.). Knowledge for writing will accrue over a number of years, and may include misconceptions. Classroom instructional practices (for example, teaching schema for narrative and informational texts) are highlighted in section 2 below: evidence-based practices for writing.

*Goal setting* is another important aspect of writing (see Figure 1, Planning). Goals guide all aspects of the writing process and strongly influence decision-making about what to write and how to write, while setting goals during writing may help children to ensure that they produce writing that is consistent with the task, purpose and audience (Hayes & Olinghouse, 2015). Examples of goals for writing include plans for writing a report, developing a writing plan, planning for revising an existing text, and planning to write a future piece of text (see Tables 4-9 below for classroom examples).

Other important aspects of writing include the roles of *affect* (attitude) and *motivation*, and the *social context* in which a writing task occurs (see the top of Figure 1). Motivation is important at each stage of the writing process (planning, translating, revising), but its key role is getting

the writer to write in the first place. Activities to build motivation include pupil choice of topic, connecting to pupils’ personal interests, cultures and communities; and writing for real purposes and audiences, including observing the teacher as a writer.

Finally, Berninger and Swanson note the role of *metacognition* in managing the interaction or co-ordination between writing processes such as planning, translating and reviewing.<sup>3</sup> Here, metacognition refers to the writer’s awareness of writing processes. Declarative metacognitive knowledge refers to information about writing processes, while procedural knowledge refers to knowledge of procedures for planning, composing and evaluating/revising texts. The role of metacognition in writing is supported by research by Harris and Graham (1996), who found that providing students with self-regulated strategy development (SRSD) instruction significantly increased both students’ effort and their intrinsic motivation. Children may become metacognitively aware as they discover that the benefits of planning a piece of writing in the pre-writing phase (by, for example, consulting a range of source texts) can lead to fewer interruptions (and hence to greater fluency) during transcription (Beauvais, Favart, Passerault & Beauvais, 2012).

### Processes for Writing in the Primary Language Curriculum

Many of the attitudinal and cognitive processes found in models of writing are also evident in the language curriculum (NCCA, 2015, 2019). These are often represented in learning outcomes which we can map onto developing communicative relationships through language (e.g., engagement, motivation and choice), understanding the content and structure of language (e.g., conventions of print and sentence structure, spelling and vocabulary) and exploring and using language (e.g., purpose, genre and voice, writing processes, response to author’s intent, and handwriting and presentation (see Figure 2).

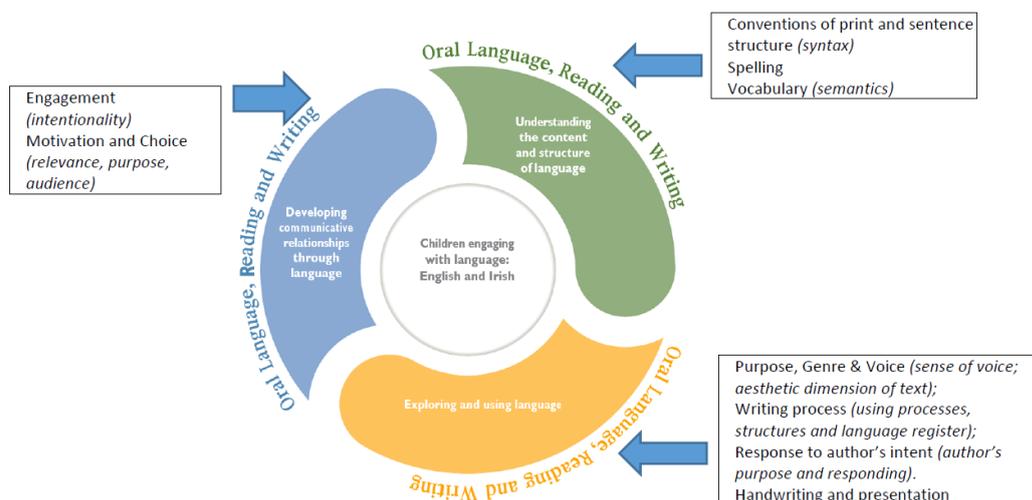


Figure 2: Key Learning Outcomes in Writing Mapped onto the Elements of Language Learning (Adaptation to NCCA, 2019: Figure 3)

The curriculum also provides insights into relationships between oral language, reading and writing when it maps the learning outcome labels (concepts, dispositions and skills) for all

three strands onto the elements of language learning (NCCA, 2019: Table 1). For example, the learning label ‘purpose, genre and voice’ is mapped onto both reading and writing (Table 1, below). This suggests that there are crossovers between reading to writing and vice versa. Supporting children to identify key characteristics of a particular text genre during reading may also enable them to draw on that knowledge as they write in the same genre. Similarly, ‘vocabulary’ (semantics) appears under the Understanding element for all three curriculum strands. Based on this, we might expect to see crossover in vocabulary usage or word choice between oral language, reading and writing.

Table 1: Links between the Content and Processes of Oral Language, Reading and Writing in the Primary Language Curriculum

| <b>Strand</b> | <b>Communicating</b>  | <b>Understanding</b>  | <b>Exploring and Using</b>   |
|---------------|---|---|--|
| Oral Language | Engagement, listening and attention<br>Social conventions and awareness | Sentence structure and grammar<br>Vocabulary<br>Demonstration of understanding  | Requests, questions and interactions,<br>Categorisation,<br>Retelling and elaborating<br>Playful and creative use of language<br>Information giving, explanation and justification<br>Description, prediction and reflection |
| Reading       | Engagement<br>Motivation and choice                                     | Conventions of print<br>Phonological and phonemic awareness<br>Phonics, word recognition and word study<br>Vocabulary | Purpose, genre and voice<br>Comprehension<br>Fluency and self-correction<br>Response and author’s intent   |
| Writing       | Engagement<br>Motivation and choice                                     | Conventions of print and sentence structure<br>Spelling and word study<br>(Writing) vocabulary                        | Purpose, genre and voice<br>Writing process and creating text<br>Response and author’s intent<br>Handwriting and presentation  |

Source: Table 1 (NCCA, 2019); also see NCCA (2015: Tables 3, 4 and 5);

As well as direct crossovers between oral language, reading and writing, there are some reciprocal relationships between these strands. Hence, there are associations between phonics and word recognition in reading, and spelling in writing, and between comprehension in reading and text structure in writing, though such relationships are not always simple as the underlying processes may develop at different speeds, or become less relevant over time (see Shanahan, 2016; Kim, Petscher, Wanzek & Al Otaiba, 2018).

### **Progression in Children’s Writing**

Several authors have described the development in children’s writing through the primary and post-primary classes. According to De Smedt and van Keer (2017), writers in Grades 5 and 6 often struggle to engage in pre-writing planning, may have difficulties in generating sentences fluently (meaning that they may not have the cognitive capacity to attend to broader text-level

issues) and struggle to revise their texts as they focus for the most part on surface features. This represents a challenge to teachers in terms of ensuring that pupils develop proficiency in basic transcription processes, and also have an opportunity to engage in meaningful writing from an early stage. Teachers may also need to recognise that children will continue to develop as writers well beyond the end of primary schooling (Berninger, Fuller & Whitaker, 1996).

Bereiter and Scardamalia (1987) compared less-skilled and more-skilled writers. They found that skilled writers often engaged in a strategy they called *knowledge transforming*, where they developed elaborate writing goals, particularly goals related to content and form, which require complex processing strategies and ongoing adjustments until the text matches rhetorical and pragmatic goals. Less-skilled writers, on the other hand, engaged in a simpler *knowledge telling* approach, where they generated content through association, with one idea prompting the next. Whereas less-skilled writers' strategies tended to be inefficient and restricted to a knowledge-telling approach, skilled writers could move with ease between knowledge telling and knowledge transforming.

According to Almargot and Chanquoy (2001), expertise in writing, such as that described by Bereiter and Scardamalia, depends on progress in the main writing processes (planning, translating and reviewing), and expanding knowledge about writing including domain-specific information (content area knowledge) and linguistic and pragmatic knowledge. They further note that, while the development of expertise in many domains often means doing something more quickly or more efficiently, expert writers typically take longer to write than novice writers, as they deploy more complex processes. Almargot and Chanquoy characterise the difficulties faced by young or novice writers as being related to a lack of awareness about writing problems (such as the consideration of a writing aim or audience), limited automatised of appropriate procedures (including processes) and lack of experience in recognising errors. They further note that the development of expertise in writing can be related to an increase in working memory, arising from general cognitive development and a practice/training effect from implementing different writing processes more strategically.

Hayes (2011) described the strategies used by writers of expository text in Grades 1-9. Similar to Bereiter and Scardamalia, these begin with knowledge-telling strategies and move to more complex elaboration strategies:

- The *flexible focus strategy*, whereby writers start by commenting on the relevant topic, but soon comment on their comments rather than on the topic. It results in a 'stream-of-consciousness' essay that may lack a co-ordinating theme. This was used most frequently by pupils in the first to third grades.
- The *fixed topic strategy*, whereby every sentence the writer produces is about the given topic. This was the most frequent strategy in First to Sixth grades.
- The more complex *topic elaboration strategy*, whereby the writers maintains an overall focus on the provided topic, but also includes subtopics as well. This was most frequently used in Grades 6-9.

Hence, as students progress in writing, they move from mainly using a flexible focus strategy to mainly using a topic elaboration strategy.

In presenting their model of writing development for children (Figure 1, above), Berninger and Swanson (1994) describe how writing development progresses through three stages:

1. during the lower primary grades (1-3), low-level transcription processes such as handwriting, and high-level writing processes such as planning, translating, and reviewing gradually emerge but operate on a very local level
2. during upper primary grades (4-6), transcription gradually becomes automatic, reviewing (revision) starts to operate on higher-level aspects of text, and planning prior to writing begins to emerge, though it may not yet guide generation of text;
3. during lower secondary schooling, all writing processes interact and become more complex, with metacognitive knowledge beginning to play a more prominent role.

Berninger and Swanson (1994) note that, at first, planning for beginning writers tends to be local – sentence-by-sentence – before being more global and encompassing larger units of text. Similarly, for beginning writers, the reviewing process would first involve word-level activities, before moving on to larger units of discourse – sentences, paragraphs and texts. In their model of writing for the early primary classes (Figure 3 below), Berninger and Swanson depict pre-planning, transcription and revising as being separate from one another, with writers initially deploying these processes at word level.

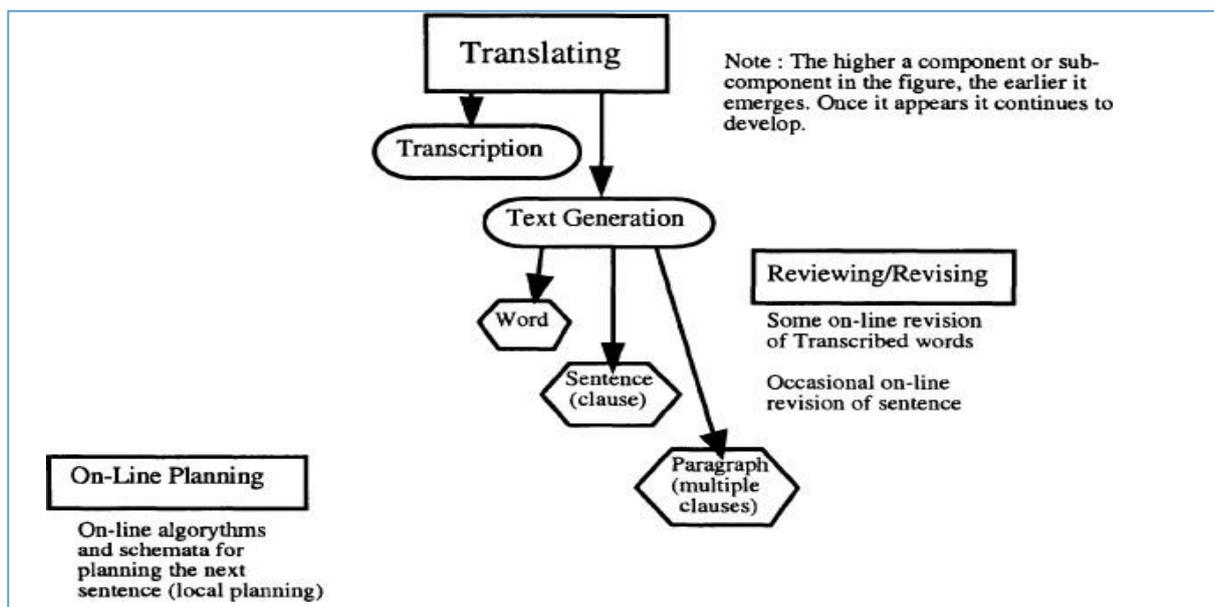


Figure 3: Berninger and Swanson's model of writing in the early primary classes. Source: Berninger and Swanson (1994, Figure 1)

By the senior primary classes (Figure 4), working memory is playing an increasing role, transcription has become more automatized, and text generation is now occurring at the discourse level, as well as at lower levels. Planning (and pre-planning in particular) is not yet fully integrated into the writing process, while revision is more often at the paragraph than at the whole text level.

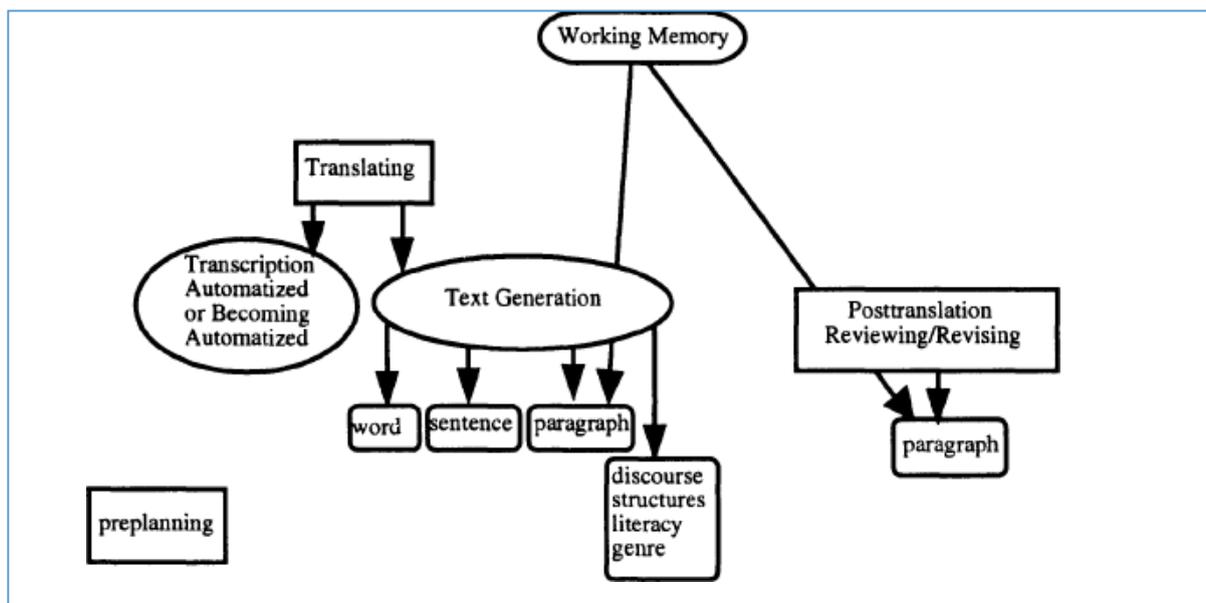


Figure 4: Berninger and Swanson's model of writing in the Upper Primary Classes; Source: Berninger and Swanson (1994, Figure 2)

While these models reflect children's general development as writers, they do not necessarily reflect the outcomes of a process approach to teaching writing, which may well expedite children's acquisition and development of key writing processes and strategies. Helping children move from a knowledge telling to a knowledge transforming approach and deepening the sophistication of their writing is addressed in the sections below on practical classroom applications of process writing instruction related to planning, evaluating, revising, editing and publishing writing (see also Tables 5-10 below).

### Genre - A Knowledge Source for Writing

The Primary Language Curriculum (NCCA, 2019) defines genre as 'a selection of oral and written forms in order to recount, explain, entertain, inform, give instructions, narrate, persuade and justify opinions' (p. 20). Hence, genre refers to a range of purposes for speaking and writing. This understanding is reinforced when genre appears in the 'Exploring and Using Language' element of the learning outcomes for oral language, reading and writing. For example, in writing, children in Third to Sixth classes are expected to 'Use, analyse and evaluate the typical text structure and language features associated with a wide variety of genres across the curriculum' (p. 31). Genre is also referred to in the progression milestones and progression steps.

Another key term in the curriculum document is text structure. This is defined as 'the way information is organised in different types of texts, for example, chapter headings, subheadings, table of contents, indexes and glossaries, overviews, introductory and concluding paragraphs, sequencing, topic sentences, taxonomies, cause and effect' (p. 59). Hence, genre can be viewed as relating to the broad social purpose of composing a text, as well as its broad format (e.g., a narrative text, an explanatory text, a persuasive text etc.), while text structure refers to within-text language features designed to achieve coherence within a specified genre (for example, how to sequence ideas with a historical recount).

Genre theory, the theoretical approach underpinning genre-based instructional approaches, has been a focus of international research since the early 1980s. It was originally inspired by Halliday’s (1978, 1985) systemic functional linguistics, which posits that any text is contextualised within a particular environment, and the text’s interaction with and influence on the environment leads to social action. According to Halliday, the register of a text is based on a combination of field, tenor and mode, which can be defined as they relate to functions of language (Table 2).

Table 2: Functions of Language and Corresponding Features and Examples of Field, Tenor and Mode

| Function of language              | Feature of situational context (register)   | Example: Letter of complaint to local council re. threat of loss of playground space.                                     |
|-----------------------------------|---|---|
| <i>Ideational</i> metafunction    | <i>Field</i> : What the text is about (the subject matter being developed)  | <i>Field (topic) of the text/letter</i> : Threat of loss of playground space.   |
| <i>Interpersonal</i> metafunction | <i>Tenor</i> : Relationship between speaker/writer and listener/reader; the tenor is based on interpersonal language choices. | <i>Tenor</i> : A formal style reflecting the relationship between the writer (student) and the reader (council member);   |
| <i>Textual</i> metafunction       | <i>Mode</i> : How the text is constructed   | <i>Mode</i> : A written text ( <i>the channel chosen</i> ) organised as a letter ( <i>how the language is organised</i> ) |

Adapted from Ewing (1994)

In Halliday’s view, children who fail to achieve at school often do so because they do not understand the functional uses of language in the range of ways that the school (or curriculum) demands. In this view, language is a social process, and, in learning to make meaning through language, language users become members of a particular cultural group. Moreover, any text that children create will be a product of a culture and situation. Hence, different situations require the use of different language patterns (or registers), which give rise to different text forms.

In the early 1980s in Australia, Martin and colleagues extended Halliday’s theory to describe how the curriculum encompasses a variety of social purposes for using language (e.g. Martin, 1984; Rothery, 1996; Christie & Martin, 1997). Curriculum activities involved students in using language for such purposes as explaining, describing, arguing, reviewing, recounting, and storytelling. Martin described these as ‘genres’ – social practices designed to achieve specific goals. In a review of the impact of genre theory on literacy education in Australia, Derewianka (2015) notes that the introduction of process writing in Australian schools was characterised by an over-reliance on narrative texts and recounts, and that the advent of genre-based teaching facilitated a broadening in writing content. Furthermore, its introduction was intended to provide more disadvantaged students with insights that would enable them to access the curriculum as they gained familiarity with the range of genres used to communicate that curriculum and the language resources underpinning those genres. Understanding of genre, often combined with process writing, was developed via a cycle based on a release of responsibility model, whereby

teachers provided intensive support in the early stages of teaching a new genre, and gradually reduced that support as students became more independent learners.

Over the course of a teaching/learning cycle, students gain an increased understanding of the language of the genre. Initially, they draw on language linked to familiar everyday experiences, before beginning to use more generalised, abstract language that is often associated with academic success. This is especially relevant in the context of disciplinary literacy (see Shanahan, 2019 for a discussion), where children can acquire the language of specific subject areas through learning about the genres in which those subjects are written (or spoken) about (for example, recounting the procedures and outcomes of a science experiment).

A number of concerns have been raised about genre-based approaches to teaching writing. For example, it has been claimed that the stages in teaching a genre can be formulaic, leading children to implement them in a lock-step manner (e.g., an over-emphasis on analysing elements of a genre and extensive teacher modelling, with little time allocated to children writing in the genre). Derewianka (2015) points out that, while the main elements of a genre are relatively predictable (because of their function), there is ample room for creativity within their less-predictable sub-elements, allowing for flexibility and choice. It has also been argued that a narrow interpretation of the term 'genre' may lead to an instructional focus on a limited number of genres. Here, Derewianka argues that attention should be given to subgenres such as historical recounts (under the broad umbrella of recounts), rather than focusing only on major genres. Finally, genre may be taught without attention to the register – to developing the language of the topic (field), the language for effective personal interaction (tenor) and the language and resources needed to compose coherent texts (the mode). Clearly, the latter criticism can be addressed by attending to these important elements of language, in the context of listening to, reading and writing texts in different genres.

Teachers in Ireland will be familiar with genre through working with programmes such as First Steps (Education Department of Western Australia, 2005, 2013). Many teachers will also be familiar with documentation provided by the PDST (2014), which outlined strategies and resources for teaching six genres: narrative writing, recount writing, procedural writing, report writing, explanation writing and persuasive writing. Suggestions were also provided for assessment. In the context of the new Primary Language Curriculum, attention may need to be paid to integrating genre instruction more fully into the writing process (i.e., planning, translating, reviewing), ensuring that instruction includes a stronger focus on the social purpose of each genre, and developing the language structures associated with field, tenor and mode, both in English and Gaeilge lessons and across the curriculum. Most importantly, children need to be immersed in writing in different genres in ways that enable them to draw on their own interests and experiences from the beginning of a genre study. In the Senior classes in particular, attention will also need to be paid to texts (oral, printed, digital) incorporating more than one mode and more than one genre.

## Self-efficacy Beliefs and Writing

*'Self-efficacy and writing competency work in tandem, and improving one requires improving the other'* (Pajares, 2007, p. 246)

While cognitive models of writing typically focus on the processes that children and adults engage in during writing and the linguistic requirements of writing, affective aspects of writing are also relevant. Self-efficacy (the confidence individuals have for performing in a given domain, Bandura, 1997) is a key affective factor associated with performance in any domain. According to Bandura, efficacy judgements 'vary across realms of activity, under different levels of task demands within a given domain, and under different situational circumstances' (p. 42). Self-efficacy is believed to influence choice of activities, effort expenditure, persistence and achievement (Schunk, 2001).

Bruning and Kaufmann (2016) note that self-efficacy for writing is important both because it can impact on whether a student will undertake a specific writing task, and whether the student will persist with the task if difficulties arise. Hence, the development of self-efficacy for writing should be a goal of writing instruction.

At a fundamental level, success in writing is the most basic way in which to develop writing self-efficacy (Pajares et al., 2007). Specific factors that have been associated with the development of self-efficacy that are relevant to writing, include:

- *mastery experience* (the most important criterion for developing self-efficacy in a domain); the impact of mastery experience may be linked to the quality of the information students receive when they perform successfully
- *vicarious experience* (e.g., observing others' performances and assessing one's own capabilities in relation to what is observed); fellow students and teachers can serve as models of writing. Models who demonstrate the ability to cope in the face of difficulties are more effective than models who exhibit complete mastery (Zimmerman & Kitsantas, 2002).
- *social persuasion* (e.g., others expressing beliefs that an individual can perform successfully). Teachers can offer suggestions for improvement and demonstrate their belief that the learner can improve; Bruning and Kauffman note that social persuasion should involve 'long term communication patterns in which teachers show their belief in learners' personal agency' (p. 160), rather than shorter pep-talks.
- *identifying and labelling physiological and emotional states linked to a domain* (e.g., identifying and addressing anxiety about writing in general, or about a particular writing task). Teachers can identify possible challenges to writing and seek to reassure students that they can overcome them.

Bruning and Kauffman (2016) identify a number of factors that need to be considered in understanding the development of writers' sense of self-efficacy, including writing goals and purposes related to a writing task; social, cognitive and linguistic contexts of a writing task; access to and use of resources for writing; form and frequency of feedback on writing;

interaction of the writer's knowledge and interest with writing tasks and genres; and teacher's own self-efficacy as a writer and teacher of writing.

Schunk and Zimmerman (2007) argue that self-efficacy in writing is not merely an outcome of writing successfully, but a consequence of how well students monitor how they are managing the writing process. They suggest that it is important to provide students with opportunities to observe a model writer because it helps with identifying the features of a writing task and its goals. In this regard, if particular writing strategies are taught, it would seem important to emphasise how to integrate and transfer them to independent writing. Modelling of strategies is most effective if it is followed up by independent practice.

Self-efficacy for writing is often examined with reference to self-regulation for writing. Self-regulation (or self-regulated learning) refers to self-generated thoughts, feelings, and actions that are designed to affect one's learning of knowledge and skills (Zimmerman, 2000, 2001). Activities designed to enhance writers' self-regulation may also impact positively on their self-efficacy (Santangelo, Harris & Graham, 2016). Zimmermann (1998) viewed self-regulation as involving three processes:

- The forethought phase which precedes actual performance and refers to processes that set the stage for action, such as goal setting, planning and modelling;
- The performance control phase which involves processes that occur during learning and affect attention and action, such as social comparisons, feedback, and use of learning strategies;
- The self-reflection phase which occurs after performance, as learners respond to their efforts by evaluating their progress towards goals and adjust their strategies as needed. Here, in the context of writing, teacher feedback can be expected to play an important role.

According to Santangelo et al. (2016), activities associated with the development of self-regulation (and therefore self-efficacy) for writing include: goal setting, modelling and tutoring, cognitive strategies instruction, use of self-evaluative standards (such as scoring rubrics), prewriting, and use of mental imagery.

Self-efficacy for writing can be assessed. For example, Pajares (2007) developed a Writing Self-efficacy Scale which has been used in numerous studies. The scale has a two-factor structure – self-efficacy for basic writing skills, and self-efficacy for advanced composition skills – and correlates significantly with other attitudinal measures (e.g., writing self-concept) and with writing achievement, for students in Grades 4 to 11. While such instruments are useful in describing self-efficacy for writing in a general sense, it may also be the case that writers make multiple judgements about their self-efficacy in the course of a single writing task (Bruning & Kauffmann, 2016), for example, when they receive an assignment, discuss ideas for writing with others, implement their writing plan and review their written texts.

In sum, the research reviewed here suggests that building pupils' writing self-efficacy involves ensuring that they experience progress and success with their writing, that they are presented with successful models of writing, and that they receive and reflect on feedback provided by their teachers, their peers and their own self-evaluation.

We turn now to the research on classroom studies and applications of theoretical perspectives in classrooms. Teachers require high levels of ‘content knowledge’ (**what** to teach) and ‘pedagogical content knowledge (PCK)’ (**how** best to teach this content) (Shulman, 1987). According to Shulman, it is this pedagogical content knowledge that differentiates the generalist from the specialist who can ‘blend [ing of] content and pedagogy into an understanding of how particular topics, problems or issues are organized, presented and adapted to the diverse interests and abilities of the learners and presented for instruction,’ (Shulman, 1987, p.8). Enhancing teachers’ PCK ensures that they acquire the particular content, terminology, and body of practices associated with their discipline or subject. Key content and pedagogical content knowledge for writing are the focus of the following sections.

## Section Two: Evidence-Based Practices for the Teaching of Writing

*'Everyone has the capacity to write; writing can be taught; and teachers can help students become better writers' (NCTE, 2016)*

Evidence-based practices for the teaching of writing can be drawn from meta-analyses (e.g. Graham et al.'s suite of studies), systematic reviews of the literature (e.g. Gadd & Parr, 2017), recently-published articles in peer-reviewed journals, research studies of effective teachers of writing (e.g. Gadd & Parr, 2017), national surveys of teachers' practice in writing (e.g. in the US: Gilbert & Graham, 2010; in the UK: Dockrell, Marshall & Wyse, 2016) and from researchers who spend long periods of time in classrooms carefully documenting their observations and interactions (e.g. Graves, 1994). It is important to note that meta-analyses draw on experimental and quasi-experimental research studies only, so findings from important smaller-scale qualitative studies and aspects of writing which are harder to research using experimental designs are not included. Researchers outline the selection of studies they include in meta-analyses and calculate effect sizes to determine strong, moderate or minimal evidence to support conclusions about effective approaches to the teaching of writing. Findings from these studies are interwoven into subsequent sections of this paper.

Graham et al.'s (2012) meta-analysis, which focused on teaching elementary students (K-6<sup>th</sup> grade) to be effective writers, examined research studies in relation to the writing process, fundamental writing skills, writing knowledge and the role of engagement in writing development. The findings are also applicable to very young writers when developmentally suitable approaches such as shared and interactive writing are used (e.g. McCarrier, Pinnell & Fountas, 2000) and applicable to students with learning difficulties when appropriate modifications are made. Four key recommendations arose from the meta-analysis:

1. Provide daily time for students to write.
2. Teach students to use the writing process for a variety of purposes
  - a. Teach students strategies for each component of the writing process
  - b. Teach students to write for a variety of purposes.
3. Teach students to become fluent with handwriting, spelling, sentence construction, typing, and word processing.
4. Create an engaged community of writers.

An earlier meta-analysis (Graham & Perin (2007), focused on adolescents in middle and high schools and established 11 key strategies to improve the writing of this age group which are summarised in Table 3 below).

Table 3: Summary of Research-based Classroom Practices in Writing (Upper elementary, Early Secondary derived from Meta-analysis: Graham & Perin, 2007

| <b>Practice</b>               | <b>Explanation</b>  |
|-------------------------------|---|
| <b>Writing Strategies</b>     | Teaching students strategies for planning, revising, editing their texts  |
| <b>Summarisation</b>          | Explicitly and systematically teaching students how to summarise texts  |
| <b>Collaborative writing</b>  | Using instructional arrangements in which students work together to plan, draft, revise, and edit their compositions. |
| <b>Specific product goals</b> | Assigning specific, reachable goals for the writing to be completed   |
| <b>Word processing</b>        | Using computers and word processors as instructional supports   |
| <b>Sentence combining</b>     | Teaching students to construct more complex, sophisticated sentences  |

|                                     |   |
|-------------------------------------|---|
| <b>Prewriting</b>                   | Engaging students in activities designed to help them generate or organize ideas for their composition  |
| <b>Inquiry activities</b>           | Engaging students in analysing immediate, concrete data to help them develop ideas and content for a particular writing task  |
| <b>Process writing approach</b>     | Interweaving a number of writing instructional activities in a workshop environment that stresses extended writing opportunities, writing for authentic audiences, personalized instruction and cycles of writing |
| <b>Study of models</b>              | Providing students with opportunities to read, analyse, and emulate models of good writing  |
| <b>Writing for content learning</b> | Using writing as a tool for learning content across the curriculum (can also improve reading comprehension)   |

Research into effective teachers has a long history, but it is only since the mid-1990s that there has been a renewed interest in the field of literacy in seeking out expert teachers of literacy and investigating not only their beliefs and attitudes but also just what it is these teachers do in the classroom that sets them apart from their more typical peers. Such studies have been conducted across the US (e.g. Pressley et al. suite of studies; Knapp, 1995); in the UK (e.g. Wray, Medwell, Poulson & Fox, 2002; Topping & Ferguson, 2005) and in Australia (e.g. Loudon et al., 2005) but are mostly focused on reading. Studies focused on writing are much rarer.

Table 4: Eight dimensions of effective literacy instruction (Gadd & Parr, 2017)

| <b>Dimension</b>                         | <b>Example</b>   |
|--|--|
| Expectations                             | Vision of achievement that teachers hold and communicate to learners   |
| Learning goals                           | What teachers do/ think about in setting goals for and with learners   |
| Learning tasks                           | What teachers do/ think about as they devise learning tasks for and with learners  |
| Direct instruction                       | Approaches/strategies used by teachers   |
| Responding to learners                   | How teachers feedback and feed forward to learners, nature of feedback, and how learners use it                                |
| Motivating/challenging                   | How teachers motivate learners, set sufficient level of cognitive challenge in tasks   |
| Organisation, differentiation management | What teachers do to organise, differentiate and manage instruction   |
| Self-regulation                          | Actions teachers take to cultivate sense of ownership in learners <b>and</b> support their development as independent learners |

One such recent study (Gadd & Parr, 2017) examined the practices of nine teachers in New Zealand who had been identified as exemplary teachers of writing and whose students had consistently made accelerated progress in writing as measured against national norms. In designing their study, Gadd and Parr conducted a systematic review of the literature of effective literacy teachers and identified eight major dimensions of effective practice which was further developed into 52 instructional moves arising from 12 studies (some of which overlap with the meta-analyses and the wider effective schools' studies noted above). The eight dimensions are summarised in Table 4 above.

As noted earlier, Graves' research (1983, 1994) had a profound effect on the teaching of writing internationally. It 'paved the way for the widespread adoption of process-oriented writing instruction and, in particular, writing workshop in elementary classrooms' (Troia et al., 2009, p. 77). Writing workshops typically include: a) daily mini-lessons focussed on the craft, process and skills of writing; b) daily time for students to write independently on self-selected topics during which time teachers conference with children and provide feedback as children are engaged in the act of writing; c) a daily share session in which children share their writing with peers and teacher. Such fundamental shifts in writing instruction provided the impetus for a rich and varied research agenda on the pedagogy of writing.

Each of these strands of research studies shed light on practices that are effective for writing pedagogy but also highlight the complexity of practice. No single practice on its own is sufficient for success, rather it is how teachers enact practices in combination in response to children's assessed needs in the moment-by-moment interactions in the cultural and social context of classrooms that supports development. As Hall & Harding (2003, p.42) posit it is a 'complex interaction of many components; an intelligent weaving together of a lot of skills instruction combined with voluminous reading and writing'. Thus, there is no recipe or roadmap which if followed guarantees success. Critical dimensions of writing practice derived from this body of research are elaborated in the sections that follow.

### **Time to Write**

Though provision of sufficient time to write is a critical dimension for the success of any writing programme (National Commission on Writing, US, 2003), there is minimal research evidence to support this recommendation, largely due to the fact that enough research has not been conducted to establish if providing daily opportunities to write improves the quality of writing more than less frequent opportunities. However, Graham et al. (2012) highlight that without daily time to write students are unlikely to develop writing to the level required for success in school and in life and they recommend a minimum of an hour a day from first grade. Provision of time alone is inadequate unless explicit teaching of relevant and developmentally appropriate skills, strategies and techniques occurs. Graham et al. (2012) recommend 30 minutes of the hour should be devoted to explicit teaching and the remainder for children to work on their texts. This block of time allows for deep engagement and for writers to 'talk, to read, to play, to imagine and inhabit, to dream, ponder and share ideas as well as to draft and reconstruct' (Grainger, Gooch & Lambirth, 2005, p.23). Furthermore, children can more readily revisit and redraft texts when they have daily consistent predictable routines available to them to engage in the act of writing (Calkins, 1998; Graves, 1994). Grainger et al. (2005, p.2) state that 'if children's writing is to demonstrate their creativity, individuality, voice and verve, then the seeds of their stories and other forms of writing need constant nurturing and support as well as time to evolve and reverberate.'

The 2014 National Assessments in Ireland (Kavanagh et al., 2015) indicate that on average, teachers of children in second class allocate 294 minutes to literacy (oral, reading and writing) (up by 29 minutes from 2009) in the week (58.8 minutes daily) and a further 149 minutes are allocated across the curriculum. It is clear that Irish classrooms fall far short of the hour for

writing recommended by Graham et al. (2012).

International surveys of writing practices among teachers indicate that students are not provided with sufficient time to write and in fact spend little time daily actually composing text (Cutler & Graham, 2008). Though allocation of time is a contentious issue in Ireland (NCCA, 2005, 2008), time for writing can be enhanced by integrating writing with reading and teaching writing genres when engaging in a range of curricular areas (Graham et al., 2012). However, it is critical that the extra time does not compromise the integrity of the discipline so that every lesson does not become a literacy lesson and conversely that an over focus on disciplines detracts from the study of literature and writing creativity. Embedding the teaching of mechanical skills into authentic writing removes time spent completing skills in isolation in workbooks. In addition to making good use of time, research also indicates that combining reading and writing instruction is more effective than teaching each in isolation or separately and that ‘literacy programs balancing reading and writing instruction can strengthen reading and writing and that the two skills can be learned together profitably’ (Graham, Liu, Aitken, Ng, Bartlett & Harris, 2018, p.279).

### **Teaching Students to Use the Writing Process for a Variety of Purposes**

Twenty-five studies in the Graham et al. (2012) meta-analysis provided strong evidence for teaching students to consider the purpose of writing and the intended audience for the text (Graham et al. 2012). These studies provided strong evidence for explicit instruction in a variety of strategies for each component of the writing process: how to plan, draft, revise, edit and publish writing. Furthermore, the National Council for the Teaching of English (US) in its position statement on the teaching of writing (NCTE, 2016, p.9) argue that when writers write for authentic audiences they:

*learn from each session with their hands on a keyboard or fingers on a pencil as they draft, rethink, revise, and draft again. Improvement is built into the experience of writing when writers revise, strategising ways to make their writing better.*

However, though teachers report that they are aware of and teach strategies for writing processes they do so infrequently (about once a month) which is not often enough to truly impact on the quality of writing (Graham et al. 2014; Dockrell et al., 2015).

Each of the major cognitive processes involved in writing will pose varying degrees of challenge for children depending on their stages of development. Though the processes of writing are presented in a linear sequence, in reality they are recursive and occur throughout the writing from selection of initial idea to final published version. Children should learn how to move back and forth through the various components as the writing takes shape and is honed and polished. As described earlier, theoretical models of writing (e.g. Hayes & Flower, 1980; Berninger & Swanson, 1994) attempt to capture the complexities of writing and offer a valuable lens for teachers to conceptualise and understand the processes of writing for children in primary school. This content knowledge can support teachers in developing powerful writing instruction that responds to students’ needs and also impacts on the quality of writing.

## **The Role of Strategy Instruction in Writing Pedagogy**

Graham et al., (2012, p.15) define a strategy as a ‘series of actions (mental, physical or both) that writers undertake to achieve their goals. Strategies are tools that can help students generate content and carry out components of the writing process’. Strategy instruction should utilise the Gradual Release of Responsibility model (GRRM, Pearson & Gallagher, 1983; Fielding & Pearson, 1994; Duke & Pearson, 2002) which has its roots in research related to reading comprehension. There is also strong support in the literature for using the model in relation to writing strategy instruction (Graham et al., 2012). Self-Regulated Strategy Development (SRSD: Graham & Harris, 1996) utilising the GRRM has been tested in a wide range of interventions (discussed above in relation to motivation and self-efficacy), with a wide variety of class levels and with both typically achieving and struggling writers (e.g. Tracy, Reid & Graham, 2009; Glaser & Brunstein, 2007; Harris, Graham & Mason, 2006; Garcia-Sanchez & Fidalgo Redondo, 2006). Overt modelling of strategies enables the teacher to provide instruction within the child’s ‘*zone of proximal development*’ (Vygotsky, 1978, p. 87). It is essential that students have the background knowledge they need to utilise the strategy and that the strategy is relevant to their stage of development (see earlier discussion in relation to progression in writing).

Exponents of process approaches to writing recommend teaching mini-lessons within a writing workshop (Graves, 1994; Calkins, 1994). Mini lessons scaffold development in the processes, skills and craft of writing whereby ‘writing is seen as an apprenticeship, and the teacher’s job is to help the children develop the art of writing’ (Kennedy, 2014, p.112). It is important that mini-lessons are kept mini, so that there is sufficient time within the workshop for children to write independently. There are five critical steps within the gradual release of responsibility model which are illustrated in the following example:

### ***Step 1: Explain***

In the GRRM model, the teacher begins by explicitly naming and describing the strategy or writing technique, indicating why it is important, when it should be used, and how it facilitates or enhances the quality of writing. This essential step in the model emphasises the metacognitive dimensions of learning, bringing the strategy to a more conscious level so that the learner may better internalise it and call upon it if needed when working independently. For example, if the focus of the mini-lesson was on the use of more precise verbs, the teacher might begin by saying: *‘We have been working on making our writing more vivid so that our readers can really visualise what is happening. Last week we explored how adjectives can help to paint a picture. Good writers also think carefully about their verb choice and choose verbs that convey a precise meaning to ensure the writing is interesting and easy for the reader to visualise the action’*.

### ***Step 2: Demonstrate***

Second, the teacher explicitly models through thinking aloud, how to use the strategy or technique, highlighting for students the invisible-in-the-head processes and thoughts that guide the writer in implementing the strategy or thinking about the technique. In

the context of a craft lesson, whereby the teacher may model an author technique to enhance the quality of writing, such as a precise verb, a well-chosen ‘mentor text’ (Pytash & Morgan, 2014) is used to highlight the particular features of the technique. Mentor texts serve as models for developing writers and the think aloud dimension is critical if children are to emulate these authors and transfer the technique into their own writing. In thinking aloud, the teacher identifies the technique, underlines an example in the text and says why s/he thinks it is a good verb choice and how it helps the reader: *This is a piece of writing taken from Faraway Home by Marilyn Taylor. Let’s see how she uses verbs to help us visualise what is happening. Let’s look at this sentence here: **He picked up Rosas’s case and shepherded them down the gangway, onto the quay.** Underline precise verb ‘shepherded’ and think aloud: Hmm I think that is good verb choice because I can see in my mind’s eye the group of refugees coming down the gangway from the ship, maybe reluctantly, as they have been separated from their families and are now in a new country and this word shepherded conveys that they are being cared for and guided down the gangway, just like a shepherd minds his flock.*

### **Step 3: Guided Practice**

The next step is a guided practice whereby students try the strategy in pairs or small groups with scaffolding from the teacher: *With your partner read through the rest of the page and see if you can find any more examples and be able to say how they help the reader visualise.* The teacher circulates as children attempt to put into practice what they have been taught and monitors their efforts, reinforcing and coaching as required and rectifying any misconceptions the children may have. It is important to document children’s level of understanding and to note who may need further practice in a follow up mini-lesson. Can children identify the precise verbs? Can they explain why they think it was an apt choice of word for the context?

### **Step 4: Application to Independent Writing**

Next students are encouraged to use the strategy in the context of their independent writing: *Take out your writing from yesterday and read it. Did you use a precise verb? Share it with a partner. If not can you find a place where you could use one and insert it? Then begin your writing. Pick up where you left off yesterday and try to remember to consider the precision of verbs in your writing today.* In this way, children are invited to immediately transfer what they have learned to their own writing and are practising application of the skill in an authentic manner, rather than through skill and drill worksheets. The new technique is embedded in the ongoing work of the writing workshop. As the children write, the teacher spends time conferencing with students (see assessment section below).

### **Step 5: Reflect and Set Goals**

Finally, at the end of the writing workshop after the share session, the students are guided to reflect on the strategy, how it supported their writing, consider what was easy or challenging for them and set goals for their writing in the next session. The teacher may question and scaffold their thinking: *What did we learn about writing today? Why is it important to use precise verbs? How do precise verbs help improve the quality of our writing? Add to the Good Writers Chart*

A Think-Pair-Share activity (McTighe & Lyman, 1988) can facilitate this element of the model as through interaction with a partner, children learn to use the language of reflection, share their thinking, and identify personal goals for the next writing session. This is an ideal opportunity for the teacher to model decontextualized academic language and provide reflection stems to scaffold children's initial efforts with their partner. The linguistic structures associated with academic language knowledge are critical to success in school but are not encountered in typical every day discourse (Cregan, 2007; 2019; Snow & Uccelli, 2009) and are unlikely to be picked up by children who enter school with small vocabularies unless specifically targeted (Snow & Oh, 2011).

The addition of the reflection and goal setting to the GRRM (Fielding & Pearson, 1994) further supports the metacognitive dimensions of the model helping writers to become more aware of specific strategies and when and how to use them. In the field of reading, Paris, Lipson & Wixson et al.'s work (1994) suggests that metacognitively aware readers possess knowledge on three levels. The first of these is the *declarative level* in which the learner is aware of a particular strategy and that using it can enhance comprehension. At the *procedural level* the learner is aware of how to carry out the strategy. The third and more advanced level involves *conditional knowledge* whereby the learner is aware of when and why one uses a strategy and chooses to activate its use in independent reading. This last level indicates that the learner has achieved self-regulation in using the strategy. Similarly, in writing, metacognitively aware writers can flexibly choose and effectively use a range of strategies for each component of the writing process. Though declarative and procedural levels of metacognition are highlighted in Berninger and Swanson's model (1994) discussed above, a notable omission is the conditional and highest level which arguably is critical if writers are to value and internalise the strategies (Figure 1, above) and know when to use them. Self-regulation supports writers in a multiplicity of ways (Troia et al., 2009; Troia 2006; Harris & Graham 1992) enabling them to:

*'attain greater awareness of their writing strengths and limitations and consequently be more strategic in their attempts to accomplish writing tasks; reflect on their writing capabilities; adequately manage paralyzing thoughts, feelings and behaviours and empower them to make adaptations to composing strategies when necessary'* (Troia et al., 2009 p. 99).

Regardless of ability, all children need practice with new strategies but they will need varying levels of practice and may require further reinforcement of strategies or parts of strategies before achieving mastery (Graham et al., 2012). Key steps of the strategy can be recorded on anchor charts (Calkins, 2003) which can act as an aide memoire for students.

### **Importance of Feedback and Self-Regulation for Writing Development**

In order for strategy instruction and self-monitoring to benefit writers and impact on writing quality, it is critical that distinct goals are established throughout each of the processes and that peer and teacher feedback are specific to the process and product (see sub-section below in relation to strategies for scaffolding peer feedback) This is particularly important for struggling writers who find it difficult to self-monitor or evaluate particular strengths and weaknesses in their writing and who need multiple demonstrations and opportunities to transfer skills and strategies to their independent writing. Troia et al.'s study (2009) illustrated that without these

elements weaker writers are less likely to make sufficient progress to catch up with their higher-achieving peers. In that small scale, quasi-experimental study (2<sup>nd</sup>, 3<sup>rd</sup>, 4<sup>th</sup>, 5<sup>th</sup> grade: n=31) which examined writing achievement and instruction using a writing workshop approach, strong writers made statistically significant gains but while weaker writers made progress in writing, it was not statistically significant. There was however, variability in the quality of instruction in the classrooms. Though teachers in general had most dimensions of a writing workshop approach in place (daily time for writing, student choice in writing topics, teacher modelling and feedback, conferencing, checklists) they varied in the degree of attention and specificity given to goal setting and feedback. They also differed in relation to classroom environment and interactions (encouraging versus more punitive) and level of collaboration and agentic behaviour promoted (many versus few opportunities). This underscores the level of PCK that teachers require to effectively implement a writing workshop approach to writing instruction. Attention must be given to explicit strategy instruction, feedback and goal setting in relation to writing processes and the craft of writing across genres but equally attention to motivational aspects such as (choice of topic, children's agency, opportunities for collaboration, classroom environment) are critical. Thus, if writing workshop approaches are to be effective for all writers, specific attention must be given to each of these dimensions.

Another critical factor in the Troia et al. study was the low level of attention paid to transcription and spelling. As noted above in Section One (models of writing), translating ideas into words, sentences, and paragraphs is affected by the degree of automaticity and fluency children have in relation to letter formation, phoneme– grapheme knowledge, high-frequency words, and the capacity of their working memory. When these elements are less developed and automatic, the act of capturing thoughts on paper is more demanding and there is less capacity available to engage in planning and in revising writing (Berninger & Swanson, 1994). Putting strategies in place to help children with the mechanical aspects of writing is essential in order to free them up to concentrate on the content of their writing. This is best accomplished in a series of mini lessons tailored to children's individual needs as they demonstrate a need and a readiness for particular skills (see sub-section on conventions below). Development of transcription skills such as spelling is also linked to development phonology and word recognition (see Cregan, 2019; Kennedy et al., 2012).

### **Genre Specific Writing and Writing in the Disciplines**

It is important that writing experiences in school allow students to develop an understanding of the range of purposes for writing (e.g. inform, persuade, narrate, explain, amuse, entertain, learn, analyse and construct an interpretation) as well as an understanding of the genres (e.g. report, recount, fiction forms, poetry, persuasive forms, blog, email, text) suited to these diverse purposes (NCTE, 2016; Graham et al., 2012; NCCA, 2015, 2019). The academic language register and organisational structure associated with each genre should be taught explicitly but without resorting to constrained formulaic templates of what constitutes a representation of the genre type which has been identified as a limitation of genre study (Derewianka, 2015: see Section One Genre Theory above). Genre knowledge can expand students' concept of audience and appreciation of how the crafting of words, sentences and whole texts is influenced by one's purpose for writing. They can learn the nuances of word choice and how to adjust the tone of the

writing to resonate with their intended audience e.g. writing a letter of complaint to a manufacturer for a faulty product will be different to a Science report on an experiment or a recount of a recent school trip or a fantasy story from their imagination. Where possible, students should have the opportunity to engage with authentic purposes for writing and to share the text with a real world reader (other than the teacher). Students can also learn that there are several options open to them in considering the best genre for their text (Graham et al., 2012) e.g. might the theme of climate change be best represented in a traditional written report or a multimodal ensemble with audio and visual links or might it be just as powerfully conveyed in poetic form? Using a writing workshop approach Dalton and Smith (2011) and Dalton et al., (2015) found ‘students were highly engaged in designing multimodal pieces that would appeal to a peer audience and reveal their unique talents as multimodal storytellers’ (cited in Dalton, 2014, p.296).

More recently, the field of literacy has shifted from a content or generic genre approach to a more disciplinary focus (See Shanahan, 2019 for a discussion) which ‘strives to get students to participate – albeit at a low level – in the reading and discourse of a particular discipline, while content area literacy strives to get students to read and study like good students’ (Shanahan, 2012<sup>4</sup>). While the majority of studies have been conducted at secondary level, Shanahan has argued that it is never too early to start inducting students into the culture or essence of the disciplines so that over time they may develop an understanding that each is a discourse community with its own language, texts, and ways of knowing, doing, and communicating (O’Brien, Moje, & Stewart, 2001) bearing in mind the developmental nature of writing (See discussion on Figure 3 and 4 above). Disciplinary literacy involves developing knowledge of the ‘reading, reasoning, investigating, speaking, and writing required to learn and form complex content knowledge appropriate to particular disciplines,’ (McConachie & Petrosky, 2010, p. 16). Scientists, historians, mathematicians, artists read, write and think and discuss in different nuanced and disciplinary ways (Shanahan & Shanahan, 2008).

The following sections address classroom applications for each of the cognitive processes of writing and highlight ways in which children’s motivation, engagement, agency and self-efficacy may be enhanced within a writing workshop environment.

### **Teaching Writers to Plan and Draft Writing**

Planning for writing will be influenced by the child’s knowledge of the writing topic, knowledge of the genre, understanding of audience, the degree of autonomy provided in the choice of topic, and the quality of the child’s background knowledge of the particular topic (Berninger & Swanson, 1994; Hayes & Flower, 1980). As noted earlier, writers in Grades 5 and 6 may grapple with planning (De Smedt & Van Keer, 2017) particularly if they are assigned tasks they have no connection with or have insufficient background knowledge of the topic. When children have choice and control over writing topics, they are more likely to engage and invest in writing. This in turn provides opportunities to discover their own ‘voice’, which Graves (1994, p. 227) has suggested is the ‘imprint of the self on the writing’. Likewise, Andrews (1989, p. 21, cited in Grainger et al., 2005, p. 196) notes, ‘like a fingerprint [voice] reveals identity’. Creativity is nurtured as writers learn to look inward, drawing upon their own unique experiences for inspiration. Graves (1994) suggests that when time and choice are predictable elements of

classroom life, children engage more deeply and enter into what he terms ‘*a constant state of composition*’ (p. 104), experiencing what Csikszentmihalyi (1978, in Wigfield & Guthrie, 1997) calls ‘*flow experience*’ (p. 3), a loss of awareness of time passing as they become absorbed in writing.

While it is important to demonstrate to children how to choose a topic and how to execute a plan for it, it is also important not to confine them to a rigid prewriting process, as planning is also an on-line aspect of writing occurring as the writing is in progress. Indeed, Grainger, Gouuch & Lambirth et al. (2005, p.15) suggest:

*the nature of the final piece, however, will not always be known at the outset and the mental and practical activities through which the writing evolves need to remain open to the unexpected and be perceived as part of the creative process*

Nevertheless, for children who struggle with writing ideas and who have difficulties with text organisation, direct instruction in pre-writing and planning activities and goal setting can alleviate problems (see Table 5) and enhance the quality of writing (Graham, Harris & Mason, 2005; Saddler, Moran, Graham & Harris, 2004).

Table 5: Components of the Writing Process, Strategies and Practical Classroom Application

| <b>Components of Writing Process</b>  | <b>Writing Strategy</b>  | <b>Classroom Application</b>   |
|---|--|--|
| <p><b>Planning</b><br/>Choose writing topics; generate ideas; consider audience/purpose</p> <p><i>Genre specific:</i><br/>Inquiry Approach:<br/>Generate authentic questions; Draw on prior knowledge, take notes/research</p> <p>Set Goals</p> | <p>Genre specific graphic organisers e.g.<br/>Story<br/>Mountain/Character Profile<br/>Concept Map<br/>2 Column notes</p> <p>Order: Main ideas and supporting details<br/>Outlining ideas</p> <p>Self-regulate</p> | <p>Teacher models what, when how using GRRM</p> <p>Pick an idea<br/>Brainstorm ideas and populate the graphic organiser<br/>Test the topic on paper: do I have enough prior knowledge to write about this topic?</p> <p>Put ideas in a possible sequence by numbering each (print) or cutting and pasting (digital)<br/>Research/take notes: bullet point key nouns and verbs, interesting/surprising information</p> <p>Check progress against goals.</p> |
| <p><b>Drafting</b><br/>Create first draft to match ideas and goals of the writer</p>  | <p>Sentence generation</p>   | <p>Get all ideas down on paper, write quickly, don't stop to check for correctness (errors can be corrected when revising/editing/publishing)</p>  |

*Adapted from Graham et al., 2012; Graham & Harris, 2005; Graves, 1994; Harvey, 1998; Kennedy & Shiel, 2014;)*

<sup>4</sup> <https://www.cdl.org/articles/disciplinary-literacy-is-not-the-same-as-content-area-reading/>

### ***Teaching planning and drafting of informational texts***

In relation to writing informational, persuasive or disciplinary texts children need opportunities to engage in inquiry-focused lessons so that they can develop authentic questions and acquire the processes and research skills needed to investigate, source and ‘analyse immediate, concrete data to help them develop ideas and content for a particular writing task’ (Graham & Perin, 2007, p.19). This requires high levels of reading comprehension which Goldman and colleagues (2016) have captured in their model of reading comprehension of multiple texts. They extend Kintsch’s (1998) construction integration model of comprehension to address the further challenges posed when key concepts are investigated across multiple texts. They propose the addition of three levels to the Kintsch model: the task model, the integrated model and the intertext model. The *task model* guides the other two levels as it supports the reader in holding their goals for reading central and in selecting appropriate strategies to succeed in accomplishing these goals. The *integrated model* highlights the need to establish a global understanding of the phenomena across texts and to create inferences and interrelations across texts. Finally, the *intertext model* highlights the need to adopt a critical stance to text (Who created it? When? For what purpose? From what perspective?) and to detect and resolve conflicting or contradictory information. Adopting a critical lens highlights for children that texts are not neutral and that they should be cognisant of the language used to convince or persuade, an author’s level of expertise, and language used which may convey bias or a particular perspective. Critical thinking ‘means thinking for yourself. It is the opposite of receiving information passively. It means looking at something from all sides and weighing up the evidence before adopting a particular stance,’ (Roche, 2015, p.15). Analysis of multiple perspectives interrogates and ‘disrupts the normal’ dominant discourse (Leland, Harste & Smith, 2005, p.264). Furthermore, when students ‘engage in critical literacy from a young age they are prepared ‘to make informed decisions regarding issues such as power and control; to engage in the practice of democratic citizenship and develop an ability to think and act ethically’ (Vasquez, Janks & Comber, 2019). Such skills are critical in contributing to making the world a more equitable and socially just place. The implications of these dimensions of reading are just as important in the context of writing. Students can be guided to research their informational topic carefully and to consider their point of view when writing up their research and in deciding the presentation mode.

Students will require support in researching their topics and in selecting and accessing a range of print and digital sources. Reliable note taking is a skill in itself and Graves (1989, 1994) suggests that students should be taught to record only concrete nouns and active verbs (see Table 4, above). If longer excerpts are copied from a text, students should learn to reference appropriately (Graves, 1994). Students also need to learn how to take effective notes in response to their research questions, and to cross reference, evaluate and synthesise information across sources (print, digital, visual, primary and secondary). They should note Tier 3 (disciplinary, domain-specific terminology) vocabulary (Beck, McKeown & Kucan, 2008) and examine the graphics, captions, charts and tables they encounter. Limiting note taking to key words and phrases means students will then have to generate their own sentences and are more likely to imbue their writing with their own voice and style rather than relying on the source. In this way, they create their own unique author voice while learning the norms of writing within the discipline. They can also be guided to productively transfer the craft of writing learned in fiction to non-fiction (see word choice below).

## Teaching Writers to Evaluate Writing

Accomplished writers critically evaluate their choice of words and add and delete sentences and paragraphs as they try to shape the writing to match the original intention seen in the mind’s eye. Reflecting on audience is critical if writers are to adjust their language register and sharpen their writing to ensure it meets their goals and is effective in conveying their intention to readers. It requires the ability to detect ‘dissonances between the author’s intended meaning and the text produced’ (Philappokos & McArthur, 2016, p.419). Evaluating and revising do not come naturally (de Smedt & Van Keer, 2017) and may require repeated explicit demonstrations for children with many opportunities for scaffolding and experimentation. Before writers can be expected to revise they must learn to evaluate their writing.

Through mini-lessons within writing workshops children are taught to consider their word choice, sentence structure, character development, leads and genre structure, and are encouraged to write with clarity and originality. Reading and writing are seen as reciprocal processes that support and strengthen each other (Kennedy & Shiel, 2014). Learning how to evaluate the strengths and weaknesses of their work is a critical first step for young writers. Using the learning from mini-lessons paves the way for students to begin to engage in actual revision (Table 6).

Table 6: Evaluating Strategies and Practical Classroom Application

| <b>Components of Writing Process</b>   | <b>Writing Strategy</b>  | <b>Classroom Application</b><br>Teacher models what, when how using GRRM   |
|--|--|--|
| <b>Evaluating</b><br>Rereading text: examining if it matches intention and meets goals | <b>Self- evaluation</b><br>Noting strengths and areas for revision at:<br><br>word,<br>sentence<br>discourse level<br><br>Learn revision/symbols to mark sections of text for later revision | <b>Sample Questions to Ask</b><br><i>Focus on quality of writing: Did I</i> <ul style="list-style-type: none"> <li>• Use apt precise words?</li> <li>• Use an appropriate level of vocabulary?</li> <li>• Vary my sentence structures?</li> <li>• Vary the complexity of my sentences?</li> <li>• Engage the reader?</li> <li>• Use an appropriate genre language register?</li> <li>• Use a range of craft mini-lessons suitable to the genre?</li> </ul><br><i>Focus on ideas/clarity</i> <ul style="list-style-type: none"> <li>• Are my ideas clear?</li> <li>• Does the writing make sense?</li> <li>• Are my ideas in a sequence?</li> <li>• Is there a clear structure: beginning, middle, end?</li> <li>• Are there any gaps or confusions?</li> <li>• Does the writing capture the ideas I had in my mind’s eye?</li> </ul> |
|  | Self-monitoring<br>Self-regulation   | Did I meet my goals for this draft? If not, what do I need to change? <ul style="list-style-type: none"> <li>• Identify priorities</li> <li>• Keep a written record of goals</li> <li>• Keep a checklist of goals achieved</li> </ul>  |

*Adapted from Graham et al., 2012; Graham & Harris, 2005; Graves, 1994; Harvey, 1998; Kennedy & Shiel, 2014.*

### ***Peer feedback***

Further ways to support an evaluative stance is to provide opportunities for children to engage in peer feedback. Graham, Harris and Hebert (2011) reported an effect size .71 derived from six studies in relation to peer review. Studies in which opportunities for reciprocal peer-review were provided whereby students both give and receive feedback (e.g. Philippakos & McArthur 2016; Boscolo & Ascorti, 2004) have found that such students make more substantive revisions to their writing resulting in improved quality. Success is contingent on modelling these processes for students and engaging them in using relevant evaluation criteria (see assessment section below). It is helpful ‘for writers to discuss with peers what they have done, partly in order to get ideas from their peers and partly to see what they, the writers, say when they try to explain their thinking’ (NCTE, 2016, p.14). Providing feedback to a peer can sharpen students’ understanding of audience, as when questioned writers come to the realisation that the writing may require greater clarity or further elaboration. Students are more likely to be able to detect macro-level issues in another student’s text than in their own but benchmarking a peer’s work against criteria familiarises children with evaluation criteria and this can further enhance their own first drafts (Philippakos & McArthur, 2016).

### ***Evaluating Writing: Influence of Quality Literature on Word Consciousness across Genres***

Developing writers will revise at the word and sentence level initially as these levels are more manageable for them and are a good place to begin with evaluating and revising (Kennedy, 2014; Berninger & Swanson, 1994). It is an opportunity for teachers to link with work in the reading workshop. Students should be encouraged to notice when words have been used in interesting ways in texts they are reading, to record these in vocabulary notebooks and to utilise these words in appropriate ways in their personal writing. Adopting the stance of first the reader and then the writer helps children to value the precision and apt use of language (Graves, 1994; Calkins, 1986; Hansen, 1987; Barr, 2000). As Calkins (2003, p.360) notes ‘good readers the world over pause as they read, to gasp, weep, imagine and remember’.

Guiding children to discuss and consider an author’s word choice in craft mini-lessons in writing workshops puts a focus on the literary, aesthetic, and creative dimensions of writing. It fosters a ‘word consciousness’ amongst children which creates a positive disposition toward noticing and acquiring new words (Graves & Watts-Taffe, 2002). Mini-lessons using mentor texts (Pytash & Morgan, 2014) can explore how published authors have crafted words, phrases and sentences so that readers can connect, visualise, infer, question, predict; consider why the authors might have chosen particular words; and how and why they create a mood, setting or believable character. These are concepts students encounter in relation to reading comprehension and can be guided to transfer to writing. Through direct instruction using the GRRM, teachers can highlight for students the techniques they can emulate from authors. Making these dimensions visible for students through visual displays, anchor charts and a good writers’ checklist is an important step in raising children’s awareness of the features of highly engaging and effective writing.

As students progress through primary and secondary school, they need opportunities to continue to explore words and grow the sophistication of their vocabulary. Ensuring growth in vocabulary requires systematic attention to Tier 2 and 3 words (Beck, McKeown & Kucan, 2008) during

reading time in school but can also be enhanced in Writing Workshop as teachers can ensure the mentor text chosen to support the mini-lesson is at grade level and contains sufficiently challenging vocabulary in the context of the genre. As Aronson (a historian who writes for children) notes:

*'too much nonfiction has basically serviceable prose. In other words, in the mind of the author, what matters is the content. So they're basically getting you to the content in an okay way. They're sort of adding the bricks and then you have a wall. I think an author who pauses to really look at why is it this word and that word, why is it the cadence of that sentence against this sentence? the care of how the author crafts a sentence...I think of my books really more as symphonies, as compositions, and I really try to feel the unfolding of the melody. (Aronson, no date).*

Teacher knowledge of high-quality literature is critical to this process and teachers need to know how to stay up to date in relation to recent publications for children across the curriculum. Style and text organisation matter. High-quality informational books will have:

*Style—writing is interesting, stimulating, reveals author's enthusiasm for subject; curiosity and wonder encouraged, appropriate terminology, rich language*  
*Accuracy—facts current and complete, balance of fact and theory, varying point of view, stereotypes avoided, author's qualifications adequate, appropriate scope, authenticity of detail (NCTE Orbis Pictus Award Criteria, cited in Duplass, 2011, p. 237.)*

Students can be taught to transfer skills learned from narrative and fictional writing to non-fiction genres to avoid the trap of 'serviceable prose' and to allow students to develop their voice. Heard (2013), drawing on reader response theory (Rosenblatt, 1978), suggests supporting students to respond to written texts by adopting efferent and aesthetic stances. An efferent stance entails reading for information while an aesthetic stance is responding to the literary quality of the text and how it makes the reader feel or engage with the text.

Table 7: Examples of non-fiction writing

|  |   |
|--|---|
| <a href="http://justfunfacts.com/interesting-facts-about-seals/">http://justfunfacts.com/interesting-facts-about-seals/</a>  | <i>See what a seal can do</i> (Butterworth, 2014)<br>Adapted  |
| <p>Seals are fin-footed, semiaquatic marine mammals...All seals share some general physical characteristics. They all have streamlined bodies for moving through the water and four flippers. Their bodies are covered in soft fur, and under their skin all seals have a layer of blubber which helps insulate them from cold temperatures. Seals spend most of their lives in the water.</p> | <p>If you are down by the sea one day you might spot a seal, lying about like a fat sunbather or flumping along the sand...seal spends most of his time in the sea...His body is just the right shape to shoot through the water: sleek, smooth and pointed at both ends...Seal slips through the seaweed forest-big eyes searching the gloom. His sharp ears hear dolphins whistle and a ferry-boat's engine chugging... he has two fur coats that keep him waterproof and a thick layer of fat under his skin that wraps around him like a duvet.</p> |

Consider the two examples (Table 7 above), both of which seek to inform the reader about seals. In reading the first text with an 'efferent stance', we learn facts about seals, including a domain

specific definition, where they live and their physical characteristics. In reading the same text with an ‘aesthetic stance’, we can notice the author’s choice of words and sentence structure. While there is some description, there is little ‘voice’ or evidence of passion about the subject. The second text, on the other hand, connects with the reader through a range of literary devices. It opens by speaking directly to the reader. Apt verbs such as *flumping* enable the reader to visualise the seal on land while *shoot* and *slip* enable us to visualise the seal moving in the water. Precise adjectives *fat sunbather, sleek, smooth, pointed at both ends* enable us to visualise what a seal looks like. The author also appeals to our senses describing what the seal sees and hears within his dark habitat (*seaweed forest, gloom*). The use of a simile *thick layer of fat under his skin that wraps around him like a duvet* enables us to conjure up an image of plumpness, comfort and protection. Possible mini-lessons that the texts could be used for include: figurative language, active precise verbs or imagery, apt adjectives or domain specific vocabulary. The first text contains a discipline-specific word ‘blubber’, while the second refers to it as a thick layer of fat. Though teaching children to write in a way that hooks and engages the reader is important, equally important is teaching them to notice and utilise disciplinary language so that they build domain specific terminology and concepts. Thus, there is a delicate balance to be struck between literary and disciplinary language in creating informational texts, bearing in mind the audience for whom the text is intended. Guiding children to read their own creations (print, multimodal, digital) with both an efferent and an aesthetic stance supports them in evaluating and later revising their writing.

### ***Evaluating Writing: Influence of Quality Literature on Text Structure, Connectives and Transitions***

Quality literature can also be used to help writers to develop flow and fluency into their texts which children in upper primary may find challenging (de Smedt & Van Keer, 2017). Transitional phrases are important in signalling critical information to the reader within paragraphs. They are also key to signalling the text structure (e.g. compare/contrast; cause/effect; problem/solution; chronological order) and important facts, as in the text below which compares and contrasts river turtles with tortoises:

*River turtles live in all sorts of freshwater habitats, from still, shallow waters to rushing rivers. They are very **similar** to their relatives, the tortoises, which live on land. **Like tortoises**, they have a solid outer shell, **as well as** a bony skeleton inside their bodies. The shell of a river turtle is usually flatter and lighter **than** the shell of a tortoise. It is also **a more** streamlined shape, which helps the turtle to glide quickly through the water.*

Expectations in relation to utilising more sophisticated connectives and transitional phrases (e.g., consequently, by comparison, by contrast, furthermore) can be increased as children progress through primary school and exemplified in the level of mentor text utilised for the lesson. Students can also be encouraged to use such phrases and high-level vocabulary in oral presentations and discussions.

Explicitly teaching connectives can be achieved in mini-lessons whereby teachers illustrate how they combine ideas to make a more complex sentence and vary sentence length in a text. Studies explicitly teaching sentence combining (e.g. Saddler et al., 2004) show positive influence on writing quality. However, reducing this to an exercise and combining sentences in isolation is

not the goal. Rather students need to learn how this strategy can be used to make their writing more interesting and to flow better and to utilise it when drafting and revising their own work. Examining and analysing mentor texts with a variety of sentence structures and articulating those moves explicitly can illustrate for students the potential and impact of sentence structure on maintaining reader interest. Focusing on these dimensions supports development in evaluating and revising, and expands knowledge about of domain-specific information and is critical if students are to develop expertise in writing (Alamargot & Chanquoy, 2001).

Story leads are critical in fiction writing and often determine whether the reader turns the first page. They are just as critical in disciplinary texts. How to craft a powerful opening page and to hook the reader is an important craft lesson for writers to learn regardless of genre, as highlighted by Aronson:

*When I wrote my biography of Robert Kennedy, one of the challenges I had is Robert Kennedy was so defined by his place in the family that I did not feel I could begin the book with 'Robert Fitzgerald Kennedy was born on...' because that would be as if he was an individual. So the way I wrote that first page, he is not mentioned until the very last word on the first page. The page is about his brothers...because you need to feel how overwhelmed he was by the family that surrounded him (Aronson, interview, no date: [www.readingrockets.org](http://www.readingrockets.org))*

Consider the text (Figure 5:) which demonstrates an appreciation of and understanding of how to orchestrate a range of techniques to create a highly effective lead.

|  |  |
|--|--|
| <p><i>A Journey Through the Sea</i></p> <p>Deep within the ocean, where an underwater world lies, a variety of marine mammals hunting for their prey. Swirling shoals of fish danced pass the vibrant colours of the coral, but in the darkness of the ocean, a pair of worried eyes saunter through the sea meadow.</p> <p>A small lonely turtle, lost in the tangles of the seaweed. Only a baby, shell is as soft as cotton. She eats like a ravenous beast. You'd mistake her for a bottle top. She's flying underwater as she finds her supper. Then she disappears back into her seaweed cavern. Years later, she is as big as a dinner plate. She rises to the surface and takes a large gulp of air.</p> | <p><b>A Journey Through the Sea</b></p> <p>Deep within the ocean, where an underwater world lies, a variety of marine mammals are hunting for their prey. Swirling shoals of fish dance past the vibrant colours of the coral, but in the darkness of the ocean, a pair of worried eyes saunter through the sea meadow.</p> <p>A small lonely turtle, lost in the tangles of the seaweed. Only a baby, shell is as soft as cotton. She eats like a ravenous beast. You'd mistake her for a bottle top. She's flying underwater as she finds her supper. Then she disappears back into her seaweed cavern. Years later she is as big as a dinner plate. She rises to the surface and takes a gulp of air.</p> |
|--|--|

<sup>1</sup>Figure 5: Information text lead: A Journey to the Sea: 6<sup>th</sup> Class Writer<sup>2</sup>

<sup>1</sup> Writing sample (Write to Read project: source Brett, 2019).

In this example, we see a writer who took part in a writing workshop intervention, draw the reader in with a variety of literary devices: setting the scene, creating mystery, alliteration (*swirling shoal*); descriptive detail (*worried eyes, small lonely turtle, you'd mistake for a bottle top*); vivid verbs: *saunter*; similes (*shell as soft as cotton, eats like a ravenous beast, as big as dinner plate*). Yet this writer also presents important facts about the young turtle and how it grows and develops. Disciplinary sentence construction such as writing in the present tense is also employed.

### **Teaching Writers to Revise Writing**

Revision requires the writer to stand back, adopt a reader stance and consider audience reaction. It requires high levels of reflection, awareness of the craft dimensions of writing and a willingness to explore alternatives. It is linked to the writer's content knowledge of their topic and passion for it. As Graves (1994, p.219) notes:

*Until a writer discovers a subject and decides what interests him, the nouns will often be thin and colourless, and the verbs lifeless and imprecise. Until I discover what my subject is and have some conviction about it, how can I have verbs that will march across the page with force and energy?*

As mini-lessons accumulate and students develop their knowledge of the various crafts they can employ to enhance their writing and as they learn to evaluate the strengths and identify weaknesses in their writing they can begin to consider alternatives at word, sentence and discourse level. Encouraging students to write on every second line when composing a first draft allows space for revision at the word level to occur on the first draft. This is a good entry point for primary school students and teachers can explicitly model through thinking aloud how they make choices to replace words and sentences in their own compositions in order to hone, clarify and polish the writing.

It is important to remember the developmental pathways that occur in relation to revision (See Section One above, Progression in Writing) as capacity to revise at the word level develops before revision at the sentence or whole text level (Berninger & Swanson, 1994). Partner work for the revision and editing process has also been shown to be effective in the research literature (Younger, Warrington, & McLellan, 2002; Graham et al., 2012). Developing students understanding of writing strategies to a metacognitive level is essential for self-regulation and for storage in long-term memory so they may be called upon and utilised when need is perceived (Graham & Harris, 1996). This gives children control over their learning, fosters independence, and builds academic resilience and feelings of self-worth as children successfully orchestrate multiple strategies to improve writing quality. This contributes to positive sense of self-efficacy which has been identified as essential for progress in writing (Pajares et al. 2007).

Table 8: Revision strategies and practical classroom application

| Components of Writing Process   | Writing Strategy  | Classroom Application<br>Teacher models what, when how using GRRM  |
|---|---|--|
| <p><b>Revising/Editing</b><br/>Cognitive activity where the writer makes conscious decisions to revise and reorder text to make it more effective</p> | <p>Rework text at the:</p> <ul style="list-style-type: none"> <li>• word</li> <li>• sentence</li> <li>• discourse level</li> </ul> <p>Polish writing</p> <p>Create anchor charts for each craft element</p> <p>Utilise self-evaluation, peer and teacher feedback</p> <p>Choose most effective way to communicate ideas (e.g. a poem or a report)</p> | <p>NOT EVERYTHING should be revised.</p> <p><i>Revision Word Level: How precise is my word choice?</i></p> <ul style="list-style-type: none"> <li>• Replace overused words with more apt verbs, nouns</li> <li>• Insert adjectives/adverbs, where necessary</li> <li>• Use imagery (similes/metaphors) and sensory detail where appropriate</li> <li>• Use tier 3 (domain specific) vocabulary in informational/persuasive texts.</li> </ul> <p><i>Revising Sentence Level</i></p> <ul style="list-style-type: none"> <li>• Refine level of connectives and transitions between sentences (varying according to genre and class level expectations)</li> <li>• Vary sentence length</li> <li>• Introduce elaborated clauses to extend sentences</li> <li>• Rework order and precision of sentences within paragraphs</li> </ul> <p><i>Revising Text Level</i></p> <ul style="list-style-type: none"> <li>• Rework sequence/chronology of overall text to ensure coherence</li> <li>• Consider more elaborate or sophisticated structural forms to engage the reader (e.g. cause/effect; time twists foreshadowing)</li> <li>• Add further detail (number new insertions in text write new text on a separate page; number facilitates the writer in remembering where to insert new information)</li> <li>• Delete redundant detail</li> </ul> |

*Adapted from Graham et al., 2012; Graham & Harris, 2005; Graves, 1994; Harvey, 1998; Kennedy & Shiel, 2014*

It is also important not to insist on revision of every piece of writing, as it is not a good use of time given that not everything is worth revising (Graves, 1994). Rather, revision and proof-reading for publication should occur at regular intervals and children should have control over which piece they will polish up and correct, but only after the processes of critique and evaluation have been modelled.

### Teaching Writers Proof-Reading and Writing Conventions

Writing workshop and process approaches have been criticised for variability in attention to spelling and transcription which Troia et al., (2009, p.99) suggest rarely receive ‘more than a passing nod’ within the classroom. This occurs when reading and writing instruction are not integrated and when ‘constrained skills’ (Paris, 2005) are not systematically and explicitly

taught. However, over-focusing on lower-level skills at the expense of creativity and expression can stymie students' writing and experimentation with new genres and crafts of writing and can also impact negatively on students' sense of self-efficacy and quality of their writing. Kennedy & Shiel (2010, 2014) have demonstrated that within a cognitively challenging balanced literacy framework where attention to constrained and unconstrained skills is balanced, reading and writing are integrated and assessment informs instruction, that a writing workshop approach is effective in both motivating children to write and in improving the quality of their writing. Thus, there is a delicate balance to be negotiated between fostering creativity in writing and explicitly supporting skill work. Daffern, McKenzie & Hemmings (2017, p.84) concur and argue 'one of the key challenges is to ensure instruction in spelling, grammar and punctuation are carefully balanced with other important aspects of written text creation, such as text structure, vocabulary usage and handwriting'. Thus engaging children in writing continuous texts, should not be delayed until they have achieved full mastery of spelling, grammar and other skills, as these can be effectively addressed in the context of writing instruction. Furthermore, within reading contexts, teachers can ensure systematic attention to phonics and word-identification strategies are linked to spelling development (see sub-section on spelling below)

When formative assessment is built into the writing workshop, teachers are gathering valuable data on children's strengths and weaknesses in writing. Lower level skills can be taught when children demonstrate a readiness for the skill in their independent writing. Resolving particular issues with skills such as spelling, punctuation and grammar is best addressed in small groups using children's writing as the context. Graves (1994) terms these skills 'conventions' of writing and suggests demonstrating to children that they are signposts that enable the reader to read the writing as the author intended. In this way, children begin to see punctuation marks as purposeful and begin to understand how they contribute to fluent reading; they also begin to internalise when and how to apply them to their own writing. They can begin to see punctuation as a craft of writing as well as a necessary skill when presenting writing to an audience. As teachers gather assessment data daily they can plan to differentiate teaching based on children's needs identified through conferences, rubrics and portfolios (see assessment below).

As with any process of writing, teaching proof-reading strategies to students is essential (Table 8). Research-supported strategies such as COPS (Graham & Harris, 2005) support students in identifying surface level errors in their writing. As students in older classes tend to write longer texts, it is useful to devote some time daily towards the end of the writing workshop to proof-reading e.g. in the last 2-3 minutes prior to the share session, students can be directed to stop and reread what they have written so far that day and to fix up errors they notice using editing symbols (Table 9) and a coloured pen (Kennedy, 2014). This keeps the task manageable for students, as if it is left until they are publishing a text, it can be a more onerous task.

Table 9: Proof-reading Strategies and Practical Classroom Application

| Components of Writing Process | Writing Strategy  | Classroom Application<br>Teacher models what, when how using GRRM   |
|-------------------------------|---|---|
| Proof-reading                 | <p><b>Prepare text for publication</b></p> <p>Identify surface features interfering with meaning</p> <p>Clean text for grammar, spelling, punctuation</p> <p>Sentence combining</p> | <p><i>Proof reading symbols</i></p> <p>Insert a carat for missing words: ^</p> <p>Delete extra words: /</p> <p>Circle spelling for checking: ○</p> <p>New paragraph ¶</p> <p>Fix grammar/syntax </p> <p><i>COPS strategy (Graham &amp; Harris):</i></p> <ul style="list-style-type: none"> <li>• <u>Capitalise</u> first word in sentence and proper nouns</li> <li>• Check <u>overall</u> appearance of paper</li> <li>• Use commas/end <u>punctuation</u> correctly</li> <li>• Check <u>spellings</u> and correct</li> </ul> |

*Adapted from Graham et al., 2012; Graham & Harris, 2005; Graves, 1994; Harvey, 1998; Kennedy & Shiel, 2014*

As noted earlier, writers go through three major processes while writing (planning, translating and reviewing/evaluating) and working memory is involved in all three of them (Hayes-Flower, 1980; Berninger & Swanson 1994). As highlighted in Section One above, working memory particularly affects young writers at the translating and evaluating stages as their transcription skills are not yet sufficiently automatic to free up their cognitive resources to attend to the higher-order messages of the writing such as the structure, word choice and overall message. Putting strategies in place to help children with these mechanical aspects of writing is essential and can free them up to concentrate on the content of their writing and to engage in more substantial revision and evaluation. Children in senior primary classrooms who still struggle with these basic skills require tailored small-group support to overcome their difficulties. Research has established the magnitude of the effect of transcription skills on variation in writing output and quality. It explains two-thirds of the differences in writing fluency and up to 40% of writing quality in upper-elementary and early secondary school students (Graham, Berninger, Abbott, Abbott & Whitaker, 1997).

### **Grammar**

Students who do well on worksheets and workbook pages focused on skills such as grammar and punctuation may not transfer these skills to authentic meaningful independent writing contexts (Graham, 1999; Graves, 1994). Graham & Perin, (2007) found negative associations between writing quality and a focus on traditional grammar instruction concluding that it was ‘unlikely to help improve the quality of student writing. Such findings raise serious questions about some educators’ enthusiasm for traditional grammar instruction as a focus of writing instruction for adolescents’ (p.21). However, they note that teaching sentence combining (see

above sub-section) can also enhance students' syntactic knowledge in addition to improving the craft of the writing. Such findings have implications for the Irish context where workbooks and teaching skills in isolation tends to dominate instruction. In relation to writing in UK, Dockrell et al., (2015, p. 426) found that 'teachers of older students focussed more on complex aspects of spelling such as word roots, punctuation such as commas, colons, semi-colons and the teaching of word classes and grammatical functions of words' compared with teachers in junior classes. This is likely due to the specification in the UK curriculum which stipulates grammar, spelling and punctuation requirements for each of the key stages of primary which are formally tested nationally.

The content of whole class, group and individual mini-lessons should be based on ongoing formative assessment of children's learning needs derived from anecdotal records taken during conferences with children, interactions amongst children in the share sessions and assessment of writing samples (Kennedy & Shiel, 2014)

### ***Spelling in the context of writing***

Spelling is an integral part of the orthographic knowledge that underlies efficient, automatic generation of words during writing, and efficient, automatic perception of words during reading (Kennedy et al., 2012). Snow, Griffin, and Burns (2005) note, 'spelling and reading build and rely on the same mental representation of a word. Knowing the spelling of a word makes the representation of it sturdy and accessible for fluent reading' (p. 86).

Huxford (2006) argues that early phonics (reading) is really spelling in the early stages of literacy development, and this argument is borne out by the early research base. Liberman, Shankweiler, Fischer & Carter's work in the 1970s demonstrated that phonemic segmentation (required for spelling) is necessary for the development of phonic blending (required for reading). In addition, Frith's (1985) model of literacy development suggests that it is in fact a precursor to its development. Phonemic awareness training has been found to improve the spelling ability of good readers across grade levels (strongest in relation to children in kindergarten) but not to be effective in improving the spelling of older readers with learning difficulties, who traditionally have trouble in mastering this skill (NRP, 2000).

A study in the UK (Savage, Carless, & Ferraro, 2007) which sought to predict curriculum and test performance at age 11 years from pupil background, baseline skills and phonological awareness at age 5 years found phonological awareness (e.g. rhyme, onset and rime, phoneme blending and segmentation) to be a 'unique predictor of general curricular attainment independent of pupil background, early reading ability and letter-knowledge. Gender predicted performance in writing, the English test, and English teacher assessment, with girls outperforming boys' (p.732).

An Australian study (2017) examined the influence of grammar, spelling and punctuation on the writing quality of four cohorts of students in upper primary (years 3,4,5,6). They found that 'between approximately 24% and 43% of the variance in written composition was explained by the three language convention measures and that spelling was the main predictor of written

composition for each cohort' (Daffern et al., 2017). Difficulties with spelling can negatively influence writing quality as it may affect a student's motivation, sense of self-efficacy and confidence to write (Snowling, 2000) and may limit word choice as students are less likely to choose ambitious words they can't spell (Graham et al., 2012). When teachers communicate to children that they are primarily interested in what they have to say and that the secretarial skills can be addressed when publishing, anxiety is relieved, experimentation is encouraged, and children are more confident to take a risk and have a go.

Given the influence of spelling on writing quality it is critical that students learn the alphabetic principle (26 letters (graphemes) and 44 phonemes (sounds) map on to each other) and how they combine to spell individual words. Students should be systematically taught to acquire this knowledge using a range of research-based approaches. The current practice of the Friday test which proliferates in classrooms and which focuses on rote learning and memorisation of words has not been found to be effective for spelling development. Putnam (2017, p.25) in a review of the literature on spelling, referred to the weekly test 'as Friday test, Monday miss,' and highlighted research (Abbott, 2001; Beckham-Hungler & Williams, 2003; Gill & Schrarer, 1996; Kernaghan & Woloshyn, 1995; Loeffler, 2005; Robinson, 2005; Templeton & Morris, 2000) which found 'that students often learned to spell the words correctly for the tests but failed to retain or generalize this knowledge to writing or other language activities'.

Research on spelling development (e.g. Gentry, 1982; Bear & Templeton, 1998) has contributed to our understanding of the stages of development children go through on their way to becoming competent writers. Spelling difficulties can arise when students do not integrate knowledge of letter name, sound and shape. Adopting a multisensory approach (visual, auditory, tactile and kinaesthetic) helps students to internalise and consolidate knowledge. Specific actions for addressing students' spelling development will arise from an analysis of the errors they make (in the context of their writing) and can provide insights for teachers into children's phonic and morphological knowledge. In designing instruction that is appropriate and relevant for each individual, the teacher can consider the developmental level at which the student is currently functioning, and the skills required to reach the next level. This requires that teachers have an understanding of the structure of the language. Research highlights that English is logical rule-based language system and spelling is about 84% predictable (Hanna, Hanna, Hodges, & Rudolf, 1966). Table 10 presents the developmental expectations for students arising from research by Bear, Invernizzi, Templeton, & Johnston (2012).

Table 10: Stages of spelling development (adapted from Words Their Way: Bear, Invernizzi, Templeton, & Johnston, 2012).

| Stage of Development                    | Age Range     | Example  |
|---|---------------|--|
| Stage 1 Emergent Spelling               | 3-5 year olds | Scribble, strings and letter like forms;<br>No phoneme association to mark making        |
| Stage 2 Letter Name Alphabetic Spelling | 5-7 year olds | Represents phonemes in words with letters; short vowels, blends and digraphs in evidence |
| Stage 3 Within Word Pattern Spelling    | 7-9 year olds | Long vowel sounds appear, may confuse meat/meet  |

|   |                 |  |
|---|-----------------|--|
| Stage 4 Syllables and Affixes Spelling  | 9-11 year olds  | Uses knowledge of one syllable words to spell multi-syllabic words; uses inflectional endings                    |
| Stage 5 Derivational Relations Spelling | 11-14 year olds | Learn to use Greek and Latin roots; Notices that words similar in meaning have similar spelling: nation/national |

The Words Their Way programme draws on several kinds of word sorts which are relevant to spelling development: sound sorts (e.g. sorting by rhyme, number of syllables), pattern sorts (e.g. sorting by word families, rimes, vowel and consonant sounds), and (for older children) meaning sorts (e.g. sorting by homophone, roots, stems, affixes). Word sorts actively engage the students in discovering patterns and reading, writing and spelling words using the patterns in a range of interactive activities over the course of a week. Teachers can assess students' level of spelling development and group children appropriately so that spelling is differentiated and ensure they teach visual, auditory and morphological strategies to children for spelling.

The ability to proofread is an integral part of the spelling process but is not necessarily a skill that every child will acquire naturally (Alamargot & Chanquoy, 2001). Successful proof-reading requires two distinct steps; writers must first be able to locate the errors within their work, and then be able to access strategies to correct them. By teaching these steps to the child, the teacher can guide progress in spelling, so that the child becomes an autonomous, purposeful, and confident speller (Rosencrans, 1998). In the context of a writing workshop, students can be encouraged to keep an alphabetised writer's notebook in which they record words used often in their writing and words they have corrected. In addition, a few minutes at the end of the workshop prior to commencement of the share session, children can be encouraged to read over what they have written, to proof-read for spelling errors. Misspellings can be corrected by consulting word walls in the classroom, writer's notebook, spelling partners or a dictionary.

Graham et al., (2012) recommend teaching students to touch type fluently and to compose on the computer which supports students with handwriting difficulties. They note that the National Assessments of Educational Progress (NAEP, 2013) require 4<sup>th</sup> grade students to complete the writing assessment on the computer and that being able to type is a valuable life skill. Teaching children how to use the spell checker can also support the struggling speller.

### **Social Context: Classroom Talk to Support Writing Development**

A number of reviews of the literature on discussion-based approaches (e.g. Nystrand, 2006) and meta-analyses of existing studies (e.g. Murphy et al., 2009, Soter et al., 2008) have been published. Studies in the field have examined the efficacy of a variety of discussion-based approaches e.g. efferent, aesthetic/expressive, critic/analytic to promote discussion and their contribution to reading comprehension development. Characteristic of these approaches is the creation of a conversational environment whereby authentic discussion is facilitated through book clubs or literature circles. Children often have choice over texts chosen for exploration and the teacher's role is the facilitation of high-quality discussion and scaffolding as needed. Other features include creating opportunities for exploratory talk (Mercer, 1995, 2000) to develop whereby children 'chew on' ideas, co-reason, build and share knowledge collectively. Children

engage in ‘accountable talk’ (Hampton & Resnick, 2009) and are held accountable to explore perspectives, negotiate meaning, critically question authors and infer the ‘big ideas’ in the book and reflect deeply. They are encouraged to ground their discussions in evidence from the book and in listening and responding to their peers’ contributions. Discussion-based approaches create ‘interpretive space’ and open the floor to the students to co-construct meaning (Serafini, 2008). They share the potential to influence children’s understandings of what it means to be a real reader and can shape their attitudes towards reading as a pleasurable and worthwhile activity in and outside school, ultimately laying the foundations for the habit of life-long reading to be established. They are rooted in socio-cultural perspectives on learning and apprenticeship models (Vygotsky, 1978; Rogoff, 1990) which recognise the role of interaction in shaping the construction of knowledge and higher-order thinking through regular participation in a literary community.

Though less-widely researched, there is also evidence that oral language is critical to writing development (Dockrell et al., 2015; Van der Heide 2017) and that writing ‘has a complex relationship to talk’ (NCTE, 2016). Like writing, talk varies according to each discipline’s structure, goals, ways of thinking and learning, vocabulary, and texts. ‘Accountable talk’ has also been found to support disciplinary learning (Michaels, O’Connor, Hall & Resnick, 2002). As Zygouris-Coe (2002)<sup>6</sup> asserts ‘according to this type of talk, everyone is accountable to the development of meaning by all and for all’ and accountable to knowledge building, providing sufficient evidence for assertions and rigorous thinking. The teacher’s role is to model, promote and facilitate disciplinary talk.

Social interaction and oral language development can be fostered in many ways during the writing workshop as children can discuss their writing topics, collaborate in the writing of texts, work together to revise and edit a piece of work, and share their writing product with the whole class in the share session through the Authors’ Chair (see Table 9 below for examples of ways in which oral language can be used to support writing development as writing is shared within the writing workshops). Providing such opportunities promotes a positive classroom experience and stimulating environment, key factors identified as contributing to the efficacy of writing workshop approaches to writing (Troia et al., 2009). Experiencing a responsive audience daily can be an empowering experience for the author. It is a powerful motivator for children as they gauge the reaction of the audience to their choice of topic and to their words (Kennedy, 2014; Kennedy & Shiel, 2014). As Guthrie and Anderson (1999) suggest, ‘when students can talk to each other about their writing, they learn an acute sense of audience and authorship’ (p. 36). Students need to learn to listen for details, ask questions and state what they like about the piece of writing.

The share session creates opportunities for teachers to model appropriate language structures in response to the writing and for children to develop their vocabulary and oral language (Kennedy, 2015: NCCA/Support material). Feedback should increase in sophistication as children progress through primary school and they should be able to notice examples of craft mini-lessons in their peers’ writing and respond to them using appropriate academic language.

Table 11: Social dimensions and practical classroom application

| <b>Components of Writing Process</b>  | <b>Writing Strategy</b>  | <b>Classroom Application</b>   |
|---|--|--|
| <p><b>Sharing</b><br/>Communicating with peers and teachers; giving and receiving feedback</p>    | <p><b>Peer sharing</b><br/>Authors' chair<br/>Establishing trust and tone of classroom</p> <p>Facilitate feedback in pairs, small groups or through the Authors' Chair</p> <p>Create anchor charts with sentence starters for the academic language register</p> | <p>Teacher models what, when how using GRRM</p> <p>Create a community of writers through the daily share session<br/>Teach students to listen carefully to each other</p> <p>Create a supportive environment for sharing<br/>Students respond sensitively to each other's writing using a structured format:</p> <ul style="list-style-type: none"> <li>• Begin with what they like</li> <li>• Ask questions to clarify (enables writer to understand that the reader needed more information)</li> <li>• Notice specific elements of writing (imagery, word choice, character, argument etc.)</li> <li>• Offer suggestions</li> </ul> <p>Teacher models academic language (specific to the genre) and responsive feedback</p> |
| <p><b>Publishing</b><br/>Presenting a written oral, multimodal or digital text to an audience</p> | <p>Public sharing of work</p> <p>Celebrate the work</p>  | <p>NOT EVERYTHING a student revises should be published.</p> <p>Present a range of publishing options: Print, digital, multimodal</p> <p>Binding techniques</p> <p>Celebrations of writing (e.g. a poetry café/school assemblies/sharing in other classes)</p> <p>Display in the classroom</p>   |

*Adapted from Graham et al., 2012; Graham & Harris, 2005; Graves, 1994; Harvey, 1998; Kennedy & Shiel, 2014*

As noted earlier, during the mini-lesson the teacher can model the kinds of language and thinking s/he wants students to notice and use at each point of the GRRM model. Paying explicit attention to the academic language register linked to each genre provides students with further practice in acquiring and using language in authentic interactions (e.g. proposition, corroborating evidence, counterclaim: argumentative writing).

Teacher conferencing with students during the workshop as students are engaged in the act of writing is a further way of supporting talk in the classroom (NCTE, 2016; Graves, 1994). Conferences can be with individuals and/or small groups of children as they are composing. The hallmark of a good conference is 80% child talk and 20% teacher talk (Graves, 1994) whereby the teacher 'nudges details from the writer, seeks to understand what the writer is attempting, and scaffolds them in doing so' (Kennedy, 2015: NCCA/Support material). The key is to respond to the writer and to resist the urge to 'fix' the errors that may jump out on the page.

Van der Heide adopting a genre theory and socio-cultural lens in relation to argumentative writing (2017, p. 342) contends that 'learning to write should be a social process in which students learn to make the writing moves of a genre by talking about writing with others and

through trying out and hearing talk moves in conversation'. The ways in which teachers are able to structure talk and provide opportunities for students to talk within writing workshops is pivotal as the talk moves act as a verbal rehearsal for the writing moves. Teachers need a repertoire of skills to facilitate such talk including higher-order questioning, prompting, revoicing, recasting contributions and employing wait time for students to formulate their thoughts.

A further way for students to engage in authentic oral language is in considering an oral presentation rather than a written publication in publishing their writing using 'technologies such as voice recording apps on smartphones and audio editing tools...as students create podcasts, videos, or other multimedia work in which they share their writing through oral production' (NCTE, 2016, p.15).

---

<sup>6</sup> Retrieved: <https://www.cdl.org/articles/disciplinary-literacy-and-accountable-ta>

## **Section Three: Assessment of Writing**

*Whether children do see themselves as writers, and behave as writers, cannot be judged simply by the product of their writing. Observations of them engaged in writing and in discussions about writing provide valuable evidence (Allott, 2019).*

As noted above, assessment is a key element of writing instruction. The feedback children receive from assessment, and the feedback they generate themselves through self- and peer-assessment, can have a profound effect on the quality of the writing, their self-efficacy in writing, and their ability to self-regulate or manage their writing in the future.

### **Formative and Summative Assessment**

In this section, we look at two components of writing assessment – formative and summative assessment. Formative assessment occurs on a day-to-day basis as the teacher (or the pupils themselves) generate assessment information and use it as a basis for planning revisions to a piece of text or planning a mini-lesson. Summative assessment is typically used at the end of a period of study, such as a term or year, and involves assigning a score to a piece of writing that reflects its quality across one or more dimensions. Summative assessment is often implemented using a scoring rubric.

In practice, formative and summative assessment may not be mutually exclusive. For example, a scoring rubric could be used by the teacher or by students to assess a piece of writing across one or two dimensions. The outcomes can then be used by the teacher as a basis for planning instruction in specific aspects of writing where additional support is required. For example, a rubric on the organisation of expository texts might point to pupil strengths and/or needs in such areas as the internal structure of the text, the effective use of sequence and transition words, and the inclusion of appropriate introductory and final paragraphs.

### **Assessment of Writing in the Primary Language Curriculum**

The learning outcomes in the Primary Language Curriculum (NCCA, 2019) describe children's expected learning in Writing. The curriculum also provides the Primary Language Toolkit which supports planning, teaching and assessment for all aspects of language learning, including writing. Examples of children's writing in the Toolkit illustrate learning across a number of learning outcomes. Further support for planning is offered through the Progression Continua. The progression steps in the Continua can also be used as reference points for assessment, within a broad approach to assessing children's writing capabilities. At one point in the school year, a teacher might assess vocabulary used by pupils in their writing and provide instruction in that area based on the findings. On another occasion, a different outcome, such as spelling or engagement in the writing process might be selected as the focus of assessment. The Progression Continua are useful in the context of formative assessment, enabling the provision of targeted feedback to children on their progress in Writing. The PLC (NCCA, 2019) states clearly that there is no expectation that individual children will be tracked using the Continua. Instead, teachers may use the Continua to focus on the progression of Writing capabilities of a particular group of children (e.g., those struggling with writing or more proficient writers whose work might be extended further).

It should be noted that use of the Continua requires the teacher to observe children engaged in

the process of writing. Other assessments focus on the quality of texts produced by pupils but do not take the instructional context in which the text was produced into account.

### **Gathering and Using Assessment Information**

Teachers will gather information about children's engagement with writing and the quality of their writing in a broad range of contexts. In addition to information gleaned through using the assessment resources in the curriculum, information can be gleaned from share sessions, where children read and answer questions on aspects of their writing; from writing conferences, where the teacher and pupils gather to discuss strengths of one or more pieces of writing and aspects that could be improved; and from children's ongoing work as writers, where the teacher can observe their use of strategies and the quality of the work produced, bearing in mind that a child may be working on an early draft rather than on a finished piece of work.

Teachers' observations on their pupils' writing can be recorded in several ways: by taking anecdotal records of important events as they occur – for example, a teacher may record that a pupil has successfully completed a letter to the Taoiseach requesting more funding for a school building, or that a pupil is struggling to structure a report on the effects of burning fossil fuels; or by completing a checklist indicating the extent to which important writing strategies have been implemented. Teachers may also find value in collecting children's writing samples at different points in time and using them to show children how they have improved and where further improvement might be made. Where appropriate, children can help with selecting texts to include in their writing portfolios.

There has been relatively little use of conferences to teach writing in primary schools in Ireland. As noted earlier, Kavanagh et al. (2015) reported that conferences were used by teachers of 9.8% of pupils on a weekly basis (in Second class) and 15% on a monthly basis. The formative assessment information gathered by teachers can be used as a basis for planning whole-class, small-group or individual mini-lessons, in which an aspect of writing that has been identified as being in need of improvement is emphasised.

### **Using Rubrics to Assess Writing**

Scoring rubrics are descriptive scoring schemes developed to assess aspects of pupils' performance, including writing. According to Kavanagh et al. (2015), relatively little use is made of scoring rubrics in Irish primary schools, with published rubrics used weekly by 1% of teachers and by 2% on a monthly basis. Use of teacher-designed rubrics is also modest, with teachers of 2.7% of pupils using them weekly, and teachers of 15.7% using them monthly.

Most rubrics for assessing writing are based on the seminal work conducted in the 1960s, which identified key traits in college students' writing (see Diederich, French & Carlton, 1961). In recent years, rubrics for lower- and upper-primary classes have been developed here in Ireland (see Kennedy & Shiel, 2014) and the United States (Culham, 2018). Teachers in Ireland, especially those working in DEIS contexts, may also be familiar with the First Steps Writing Continua (Education Department of Western Australia, 2005, 2013), which can also function as scoring rubrics.

One example of a scoring rubric is Culham's 6 + 1 traits, each of which is scored on a 1-6 scale. There are 7 rubrics in all, focusing on:

- *Ideas* – the central message and details that support it
- *Organisation* – the internal structure of a text, including creating the lead (opening), using sequence and transition words, structuring the body and ending with a sense of resolution
- *Voice* – the tone of the text – a personal stamp of the writer that is achieved through an understanding of purpose and audience.
- *Word choice* – the specific vocabulary the writer uses to convey meaning and enlighten the reader. It includes use of 'strong' verbs, selecting striking words and phrases, and using language effectively.
- *Sentence fluency* – the flow of words through a text. It includes crafting well-built sentences, varying sentence patterns, and breaking the rules to create fluency.
- *Conventions* – the mechanical correctness of the text including correct use of conventions such as spelling, capitalisation, punctuation, paragraphing, and grammar and usage)
- *Presentation* (the +1) – the physical appearance of a piece. Elements include applying handwriting or word processing skills, and incorporating text features such as headings, page numbers and bullets.

In addition to 'generic' rubrics that can be applied to all pieces of writing, Culham has produced scoring guides for specific genres (or 'modes of writing') such as narrative writing, expository/informational writing, and persuasive writing (opinion/argument). These are especially important for senior classes where the instructional emphasis on genre-specific elements of texts can be expected to increase.

The writing rubrics developed by Kennedy and Shiel (2014) include sub-traits of writing as well as overall traits. For example, voice is subdivided into audience, risk taking (creativity or invention) and style. The sub-traits enable teachers to take a more in-depth look at and provide more detailed feedback on particular aspects of writing. Kennedy and Shiel also include genre-specific indicators within their traits. Their rubrics are based on a 14-point scale, covering the full range of writing abilities from Junior Infants to Sixth class.

Over time, pupils can be expected to identify the traits of effective writing, as they receive feedback from teachers and other pupils on the quality of their writing, and they observe examples of more- and less-effective writing in the texts they read. Pupils in the Senior class can benefit from developing their own scoring rubrics for particular aspects of writing and applying those rubrics to their own writing. Self-assessment can promote greater awareness of the elements of effective writing, and support the development of self-efficacy.

In some schools, there may be value in developing a shared understanding of a scoring rubric. This can be done when groups of teachers come together to discuss the quality one or more pieces of writing, and rank order them based on the descriptive criteria in a scoring rubric. The understanding of writing quality developed by the teachers can then be called on as they score writing samples of pupils in their own classrooms.

## **Multiple Approaches to Assessing Children's Writing**

Clearly, there is no single approach to assessing children's writing. In order to implement a process approach to developing children's writing, teachers will need to implement a range of assessment methods. In particular, there will be a focus on formative assessment, with the goal of identifying aspects of writing that might benefit from further work, at the whole-class, group and individual levels. A range of tools including anecdotal notes, checklists, writing portfolios, progression milestones and scoring rubrics can be used to identify strengths and weaknesses, provide appropriate feedback to pupils and plan future instruction. As they progress through the senior primary classes, pupils can become adept at applying these tools to their own writing, and identifying aspects that need to be revised or on which further support is needed.

## **Section Four: Recommendations for the Pedagogy of Writing**

Arising from the literature reviewed in this paper, the following is a set of recommendations for teaching and assessing writing that are consistent with the new Primary Language Curriculum:

1. Acknowledge the developmental nature and complexity of writing. It takes time to develop and reach maturity, depth and sophistication in writing. Pinpoint each child's stage of development to identify an entry point to instruction.
2. Provide time daily for children to engage in the act of composing text. Without daily time to write, children are unlikely to develop writing to the level required for success in school and in life. Provision of adequate time supports children in discovering their own 'voice' and unique way of putting words on paper. Consider how you are currently using time in the classroom and how this extended time for writing could be facilitated.
3. Combine the teaching of the forms of language – oral language, reading and writing – rather than teaching them in isolation or separately. They are reciprocal processes and can support and strengthen each other. For example, pupils may discover the same genres in oral language, reading and writing.
4. Avail of opportunities to link oral language, reading and writing within the disciplines (e.g., history, geography, science, art, physical education). Aspects of language that can be taught in these contexts include vocabulary and word choice, comprehension skills, knowledge of genre, and writing processes.
5. Develop the motivational aspects of writing alongside the cognitive and metacognitive aspects in the writing workshop. Motivation is important at each stage of the writing process (planning, translating, revising). Put conditions in place to enhance motivation to write and agency by providing children with opportunities to:
  - choose their own topics
  - engage in writing across a range of genres and disciplines on topics of personal interest and curiosity
  - collaborate at various stages of the process
  - build confidence and sense of self efficacy as it is linked to level of effort and engagement in writing
  - set and achieve goals with an optimal level of challenge
  - see you as a teacher engage in the act of writing for authentic purposes; Be a role model
6. Respond to children's writing often. Response can be in the form of a daily share session. Audience is a powerful motivator for children. Set the tone and establish a climate of respect for each writer. The process of responding to writers should be modelled by the teacher. Conferencing daily with pupils provides a useful opportunity to respond to writers as they are engaged in the act of writing.
7. Explicitly teach strategies for each stage of the writing process using the gradual release of responsibility model. Strategies will differ depending on the particular genre. Support children in acquiring the research skills (print and digital) they require to plan and inform their writing.
8. In teaching a range of strategies, make children aware of the purpose of the strategy, and when and how to use it. This will build their metacognitive awareness.

9. Teach short mini-lessons on the craft, processes and skills of writing. In planning these lessons, teachers should draw on their knowledge of genre and the writing process, and on the assessed writing needs of their pupils.
10. Use a range of summative and formative assessment practices to inform mini-lessons and feedback to children. Model for children how to self-assess their writing by engaging them in the development and application of rubrics based on mini-lessons taught.
11. Use high-quality literature to underpin and support mini-lessons. Exploring a range of mentor texts helps children to identify each author's particular style and use of genre, and emulate these techniques in their own writing.
12. Put the emphasis on the content and form of the writing. Communicate that spelling, grammar and punctuation can be addressed when proof-reading. Teach these aspects of writing using a discovery approach with small groups convened on the basis of assessed needs.
13. Teach spelling and keyboarding skills explicitly to improve transcription. Care should be exercised to ensure that formal spelling instruction is not at the expense of time for composing whole texts.
14. Communicate high expectations for pupils and support them in reaching those expectations.
15. Encourage children to publish in print, digital and multimodal forms and sharing their writing with both children and adults.

## References

- Abbott, M. (2001). Effects of traditional versus extended word-study spelling instruction on students' orthographic knowledge. *Reading Online*, 5(3).
- Alamargot, D., & Chanquoy, L. (2001). Development of Expertise in Writing. In G. Rijlaarsdam (Series Ed.), *Through the models of writing* (Vol. 9, pp. 185–218; [https://doi.org/10.1007/978-94-010-0804-4\\_7](https://doi.org/10.1007/978-94-010-0804-4_7)
- Alamargot, D. & Fayol, M. (2009). Modelling the development of written composition. In R. Beard, D. Myhill, M. Nystrand, & J. Riley (Eds), *Handbook of writing development* (pp. 23-47). London: Sage.
- Allott, K. (2019). *Assessing children's writing: A best practice guide for primary teaching*. London: Sage.
- Applebee, A. N., & Langer, J. A. (2011). A snapshot of writing instruction in middle and high schools. *The English Journal*, 100(6), 14–27.
- Aronson, M. (n.d.). Transcript from an interview with Marc Aronson. Accessed at: <https://www.readingrockets.org/books/interviews/aronson/transcript>
- Bandura, A. (1997). *Self-efficacy: The exercise of control*. New York: Freeman
- Barr, M. (2000). The reader in the writer. *Reading*, 34(2), 54–60.
- Bear, D. R., & Templeton S. (1998). Explorations in developmental spelling: Foundations for learning and teaching phonics, spelling and vocabulary. *The Reading Teacher*, 52, 222–243.
- Bear D.R., Invernizzi, M., Templeton, S. & Johnston F. (2012). *Words their way: Word study for phonics, vocabulary and spelling instruction* (5<sup>th</sup> ed.). Essex: Pearson Educational Limited.
- Beauvais, L., Favart, M., Passerault, J.-M., & Beauvais, C. (2014). Temporal Management of the Writing Process: Effects of Genre and Organizing Constraints in Grades 5, 7, and 9. *Written Communication*, 31(3), 251–279. <https://doi.org/10.1177/0741088314536361>
- Beck, I. L., McKeown, M. G., & Kucan, L. (2008). *Creating robust vocabulary: Frequently asked questions*. New York: Guilford.
- Beckham-Hungler, D., & Williams, C. (2003). Teaching words that students misspell: Spelling instruction and young children's writing. *Language Arts*, 80, 299-309.
- Bereiter, C., & Scardamalia, M. (1987). *The psychology of written composition*. Hillsdale, NJ, US: Lawrence Erlbaum Associates, Inc.
- Berninger, V. W., & Swanson, H. L. (1994). Modifying Hayes and Flower's Model of Skilled Writing. In E. Butterfield (Ed.), *Children's writing; Toward a process theory of development of skilled writing* (pp. 57-81). Greenwich, CT: JAI Press.
- Berninger, V. W., Fuller, F., & Whitaker, D. (1996). A process model of writing development across the life span. *Educational Psychology Review*, 8(3), 193–218. <https://doi.org/10.1007/BF01464073>
- Breetvelt, I., van den Bergh, H., & Rijlaarsdam, G. (1994). Relations between writing processes and text quality: When and how? *Cognition and Instruction*, 12(2), 103-123. [http://dx.doi.org/10.1207/s1532690xci1202\\_2](http://dx.doi.org/10.1207/s1532690xci1202_2)
- Boscolo, P., & Ascorti, K. (2004). Effects of collaborative revision on children's ability to

- write understandable narrative texts. In L. Allal, L. Chanquoy, & P. Largy (Eds.), *Revision: Cognitive and instructional processes* (pp. 157–170). Dordrecht, The Netherlands: Kluwer.
- Brett, S. (2019). *Enhancing engagement in non-fiction writing through explicit teaching of literary devices using mentor texts*. Unpublished M. Ed. Thesis. Dublin: Dublin City University Institute of Education.
- Bruning, R. H. & Kauffman, D.F. (2016). Self-efficacy beliefs and motivation in writing development. In C. MacArthur, S. Graham, & J. Fitzgerald (Eds.), *Handbook of writing research* (2nd ed., pp. 160-173). New York, NY: Guilford Press.
- Butterworth, C. (2013). *Sea what a seal can do*. London: Walker Books.
- Calkins, L. M. (1986). *The art of teaching writing*. Portsmouth, NH: Heinemann.
- Calkins, L.M. (1994). *The art of teaching writing* (New ed.). Portsmouth, NH: Heinemann.
- Calkins, L. M. (2003). *The art of teaching reading*. Portsmouth, NH: Firsthand Heinemann.
- Christie, F. & Martin, J.R. (Eds.). (1997). *Genre and institutions: Social processes in the workplace and school*. London: Pinter.
- Cregan, A. (2007). *From difference to disadvantage: Talking posh. Sociolinguistic perspectives on the context of schooling in Ireland*. Dublin: Combat Poverty Agency.
- Cregan, A. (2019). Promoting oral language development in the primary school. Dublin: NCCA. Accessed at: <https://www.ncca.ie/media/4019/promoting-oral-language-development-in-the-primary-school-dr-%C3%A1ine-cregan.pdf>
- Culham, R. (2018). *Teaching writing well. How to assess writing, invigorate instruction and rethink revisions*. Portland, ME: Stenhouse Publishers.
- Cutler, L., & Graham, S. (2008). Primary grade writing instruction: A national survey. *Journal of Educational Psychology*, *100*(4), 907-919.  
<http://doi.org/10.1037/a0012656>
- Dalton, B. (2012). Multimodal composition and the Common Core standards. *Reading Teacher*, *66*(4), 333-339.
- Dalton, B., Robinson, K., Lavvorn, J., Smith, B. E., Alvey, T., Mo, E., Uccelli, P. & Proctor, C. P. (2015). Fifth-grade students' digital retellings and the common core: modal use and design intentionality. *Elementary School Journal*, *(115)*4, 548–569.
- Daffern, T., Mackenzie, N. M., & Hemmings, B. (2017). Predictors of writing success: How important are spelling, grammar and punctuation? *Australian Journal of Education*, *61*(1), 75–87. <https://doi.org/10.1177/0004944116685319>
- Department of Education and Science Inspectorate. (2005). *An evaluation of curriculum implementation in primary schools*. Dublin: Stationery Office.
- De La Paz, S., & Graham, S. (2002). Explicitly teaching strategies, skills, and knowledge: Writing instruction in middle school classrooms. *Journal of Educational Psychology*, *94*(4), 687-698. <http://dx.doi.org/10.1037/0022-0663.94.4.687>
- Derewianka, B.N. (2015). The contribution of genre theory to literacy education in Australia. In J. Turbill, G. Barton & C. Brock (Eds.), *Teaching writing in today's classrooms: Looking back to looking forward* (pp. 69-86). Norwood, Australia: Australian Literary Educators' Association.
- De Smedt, F., & Van Keer, H. (2017). Fostering writing in upper primary grades: A study

- into the distinct and combined impact of explicit instruction and peer assistance. *Reading and Writing*, 10.1007/s11145-017-9787-4
- Diedrich, P.B., French, J.W., & Carlton, S.T. (1961). *Factors in judgements of writing ability*. Princeton, NJ: Educational Testing Service. Accessed at: <https://onlinelibrary.wiley.com/doi/epdf/10.1002/j.2333-8504.1961.tb00286.x>
- Dockrell, J. E., Marshall, C., & Wyse, D. (2015). Evaluation of talk for writing. [https://educationendowmentfoundation.org.uk/uploads/pdf/Talk\\_for\\_Writing.pdf](https://educationendowmentfoundation.org.uk/uploads/pdf/Talk_for_Writing.pdf). Accessed October 20, 201
- Dockrell, J.E., Backopolou, I., Law, J., Spencer, S., & Lindsay, G. (2015). Capturing communication supporting classrooms: The development of a tool and feasibility study. *Child Language Teaching and Therapy*, 31(3), DOI: 10.1177/0265659015572165
- Duke, N. K., & Pearson, P. D. (2002). Effective practices for developing comprehension. In A. E. Farstrup & S. J. Samuels (Eds.), *What the research has to say about reading instruction* (3<sup>rd</sup> Ed., pp. 205–242). Newark, DE: International Reading Association.
- Duplass, J.A. (2011). *Teaching elementary social studies: Strategies, standards and internet resources* (3<sup>rd</sup> ed.). Belmont, CA: Wadsworth.
- Education Department of Western Australia (2005). *First Steps writing continuum* (2nd Ed.). Perth: Rigby.
- Education Department of Western Australia (2013). *Writing map of development*. Perth: Author.
- Eivers, E., Close, S., Shiel, G., Millar, D., Clerkin, A., Gilleece, L., & Kiniry, J. (2010). *The 2009 national assessments of mathematics and English reading*. Dublin: Stationery Office. Retrieved from [http://www.erc.ie/documents/na2009\\_report.pdf](http://www.erc.ie/documents/na2009_report.pdf)
- Ewing, R. (1994). What is a functional model of language? *Pen*, 95. Accessed at: [https://www.petaa.edu.au/iMIS\\_Prod/PETAA\\_Docs/PPs-open/095F.pdf](https://www.petaa.edu.au/iMIS_Prod/PETAA_Docs/PPs-open/095F.pdf)
- Fielding, L. G., & Pearson, P. D. (1994). Reading comprehension: What works. *Educational Leadership*, 51(5), 62–68.
- Frith, U. (1985). Beneath the surface of developmental dyslexia. In K. E. Patterson, J. C. Marshall, & M. Coltheart (Eds.), *Surface dyslexia: Neuropsychological and cognitive studies of phonological reading* (pp. 301–330). Hillsdale, NJ: Erlbaum.
- Gadd, M., & Parr, J. M. (2017). Practices of effective writing teachers. *Reading and Writing*, 30(7), 1551–1574. <https://doi.org/10.1007/s11145-017-9737-1>
- García-Sánchez, J.-N., & Fidalgo-Redondo, R. (2006). Effects of two types of self-regulatory instruction programs on students with learning disabilities in writing products, processes, and self-efficacy. *Learning Disability Quarterly*, 29(3), 181–211.
- Gee, J.P. (2005). *An introduction to discourse analysis: Theory and method* (2<sup>nd</sup> ed.). London: Routledge.
- Gentry, R. J. (1982). An analysis of developmental spelling in GNYS at work. *The Reading Teacher* 36, 192–200.
- Gilbert, J., & Graham, S. (2010). Teaching Writing to Elementary Students in Grades 4–6: A National Survey. *The Elementary School Journal*, 110(4), 494–518. <https://doi.org/10.1086/651193>

- Gill, C.H., & Scharer, P.L. (1996). "Why do they get it on Friday and misspell it on Monday?" Teachers inquiring about their students as spellers. *Language Arts*, 73, 89-96.
- Glaser, C., & Brunstein, J. C. (2007). Improving fourth-grade students' composition skills: Effects of strategy instruction and self-regulation procedures. *Journal of Educational Psychology*, 99(2), 297-310.
- Goldman, S.R., Britt, M.A., Brown, W., Cribb, G., George, M., Greenleaf, C., Lee, C.D., Shanahan, C., & Project READI. (2016). Disciplinary literacies and learning to read for understanding: A conceptual framework for disciplinary literacy. *Educational Psychologist*, 51(2), 219-246.  
<http://dx.doi.org/10.1080/00461520.2016.1168741>
- Graham, S., & Harris, K. R. (1996). Self-regulation and strategy instruction for students who find writing and learning challenging. In C. M. Levy & S. Ransdell (Eds.), *The science of writing: Theories, methods, individual differences, and applications* (pp. 347-360). Hillsdale, NJ, US: Lawrence Erlbaum Associates, Inc.
- Graham, S., Berninger, V. W., Abbott, R. D., Abbott, S. P., & Whitaker, D. (1997). Role of mechanics in composing of elementary school students: A new methodological approach. *Journal of Educational Psychology*, 89(1), 170-182.  
<http://dx.doi.org/10.1037/0022-0663.89.1.170>
- Graham, S., Harris, K.R., & Mason, L. (2005). Improving the writing performance, knowledge, and self-efficacy of struggling young writers: The effects of self-regulated strategy development. *Contemporary Educational Psychology*, 30(2), 207-241. <https://doi.org/10.1016/j.cedpsych.2004.08.001>
- Graham, S. & Harris, K.R. (2005). *Writing Better: Effective strategies for teaching students with learning difficulties*. Baltimore, MD: Paul H. Brookes Publishing Co.
- Graham, S., & Perin, D. (2007). A meta-analysis of writing instruction for adolescent students. *Journal of Educational Psychology*, 99(3), 445-476.  
<http://dx.doi.org/10.1037/0022-0663.99.3.445>
- Graham, S., Harris, K. R., & Hebert, M. (2011). It is more than just the message: Presentation effects in scoring writing. *Reading and Writing*, 27(6), 1015–1042.  
<https://doi.org/10.1007/s11145-013-9495-7>
- Graham, S., Bollinger, A., Booth Olson, C., D'Aoust, C., MacArthur, C., McCutchen, D., & Olinghouse, N. (2012). *Teaching elementary school students to be effective writers: A practice guide* (NCEE 2012-4058). Washington, DC: National Center for Education Evaluation and Regional Assistance, Institute of Education Sciences, U.S. Department of Education. Retrieved from  
[http://ies.ed.gov/ncee/wwc/publications\\_reviews.aspx#pubsearch](http://ies.ed.gov/ncee/wwc/publications_reviews.aspx#pubsearch)
- Graham, S., Gillespie, A., & McKeown, D. (2013). Writing: Importance, development, and instruction. *Reading and Writing*, 26(1), 1–15. <https://doi.org/10.1007/s11145-012-9395-2>
- Graham, S., Capizzi, A., Harris, K. R., Hebert, M., & Morphy, P. (2014). Teaching writing to middle school students: A national survey. *Reading and Writing*, 27(6), 1015–1042. <https://doi.org/10.1007/s11145-013-9495-7>
- Graham, S., Liu, X., Aitken, A., Ng, C., Bartlett, B., Harris, K. R., & Holzapfel, J. (2018).

- Effectiveness of Literacy Programs Balancing Reading and Writing Instruction: A Meta-Analysis. *Reading Research Quarterly*, 53(3), 279–304.  
<https://doi.org/10.1002/rrq.194>
- Graham, S. (2009). Almost 30 years of writing research: Making sense of it all with the Wrath of Khan. *Learning Disabilities Research and Practice*, 24(2), 58-68.
- Grainger, T., Goouch, K., & Lambirth, A. (2005). *Creativity and writing. Developing voice and verve in the classroom*. Oxon: Routledge.
- Graves, D. (1981). A new look at research on writing. In S. Hanley James (Ed.), *Perspectives on writing in grades 1-8* (pp. 93-116). Urbana, IL: NCTE.
- Graves, D. (1983). *Writing: Teachers and children at work*. Portsmouth, NH: Heinemann.
- Graves, D. (1994). *A fresh look at writing*. Portsmouth, NH: Heinemann.
- Graves, M., & Watts-Taffe, S. M. (2002). The place of word consciousness in a research-based vocabulary programme. In A. E. Farstrup & S. J. Samuels (Eds.), *What the research has to say about reading instruction* (3<sup>rd</sup> Ed., pp. 140–165). Newark, DE: International Reading Association.
- Grainger, T., Goouch, K., & Lambirth, A. (2005). *Creativity and writing. Developing voice and verve in the classroom*. Oxon: Routledge.
- Guthrie, J. T., & Anderson, E. (1999). Engagement in reading: Processes of motivated, strategic, knowledgeable, social readers. In J. T. Guthrie & D. E. Alvermann (Eds.), *Engaged reading: Processes, practices, and policy implications* (pp. 17–45). New York: Teachers College Press.
- Hall, K., & Harding, A. (2003). *A systematic review of the effective literacy teaching in the 4–14 age range of mainstream schooling*. London: EPPI-Centre, Social Science Research Unit, Institute of Education.
- Halliday, M.A.K. (1978). *Language as social semiotic: The social interpretation of language and meaning*. London: Edward Arnold.
- Halliday, M.A.K. (1985). *An introduction to functional grammar*. London: Edward Arnold.
- Hanna, P. R., Hanna, J. S., Hodges, R. E., & Rudorf, E. H. (1966). *Phoneme-grapheme correspondences as cues to spelling improvement*. Washington, DC: U.S. Department of Health, Education, and Welfare.
- Hansen, J. (1987). *When writers read*. Portsmouth, NH: Heinemann.
- Harris, K.R., & Graham, S. (1992). Self-regulated strategy development: A part of the writing process. In M. Pressley, K. Harris, & J. Guthrie (Eds.), *Promoting academic competence and literacy in schools*. San Diego: Academic Press.
- Harris, K.R, Graham, S., & Mason, L. H. (2006). Improving the writing, knowledge, and motivation of struggling young writers: Effects of self-regulated strategy development with and without peer support. *American Educational Research Journal*, 43(2), 295-340. <https://doi.org/10.3102/00028312043002295>
- Harvey, J. (1998). *Writing with sources: A guide for students*. Indianapolis: Hackett Publishing.
- Hayes, J.R. (2011). Kinds of knowledge telling: Modeling early writing development. *Journal of Writing Research*, 3(2), 366-383.
- Hayes, J. R., & Flower, L. S. (1980). Identifying the organisation of writing processes. In L.

- Gregg & E. R. Steinberg (Eds.), *Cognitive processes in writing*(pp.3-30). Hillsdale, NJ: Erlbaum.
- Hayes, J. R., & Olinghouse, N. G. (2015). Can Cognitive Writing Models Inform the Design of the Common Core State Standards? *The Elementary School Journal*, 115(4), 480–497. <https://doi.org/10.1086/681909>
- Heard, G. (2014). *Finding the heart of non-fiction*. Portsmouth, NH: Heinemann
- Huxford, L. (2006). Phonics in context: Spelling links. In M. Lewis & S. Ellis (Eds.), *Phonics, practice, research, policy* (pp. 83–94). London: Chapman.
- Kavanagh, L., Shiel, G., Gilleece, L., & Kiniry, J. (2015). *The 2014 National Assessments of English Reading and Mathematics. Vol. 2: Context report*. Dublin: Educational Research Centre.
- Kennedy, E. & Shiel, G. (2010). Raising literacy levels with collaborative on-site professional development in an urban disadvantaged school. *The Reading Teacher*, 63(5), 372-383.
- Kennedy, E., Dunphy L., Dwyer, B., Hayes, G., McPhillips, T., Marsh, J., O'Connor, M., & Shiel, G. (2012). *Literacy in early childhood and primary education (3-8 years)*. NCCA Research Report, no. 15. Dublin: NCCA.
- Kennedy, E., & Shiel, G. (2013). Closing the gap through professional development. In K. Hall, T. Cremin, B. Comber, & L. Moll (Eds), *International handbook of research in children's literacy, learning and culture*, 485-498. Sussex: Wiley.
- Kennedy, E. (2014). *Raising literacy achievement in high-poverty schools: an evidence-based approach*. New York: Routledge.
- Kennedy, E., & Shiel, G. (2014). The teaching and assessment of writing in Write to Read project schools. In N. Fortune, A Kelly and F. Nic Fhionnlaoich (Eds.), *Language, literacy and literature: Re-imagining teaching and learning* (pp. 97-114). Dublin: Reading Association of Ireland.
- Kernaghan, K., & Woloshyn, V.E. (1995). Providing grade one students with multiple spelling strategies: Comparisons between strategy instruction, strategy instruction with metacognitive information, and traditional language arts. *Applied Cognitive Psychology*, 9, 157-166.
- Kim, Y.-S. G., Petscher, Y., Wanzek, J., & Al Otaiba, S. (2018). Relations between reading and writing: A longitudinal examination from grades 3 to 6. *Reading and Writing*, 31(7), 1591–1618. <https://doi.org/10.1007/s11145-018-9855-4>
- Kintsch, W. (1998). *Comprehension: A paradigm for cognition*. Cambridge, UK: Cambridge University Press.
- Knapp, M. S. (Ed.). (1995). *Teaching for meaning in high poverty classrooms*. New York: Teachers College Press
- Langer, J. A. (2001). Beating the odds: Teaching middle and high school students to read and write well. *American Educational Research Journal*, 38(4), 837–880. doi:10.3102/00028312038004837.
- Leland, H.C., Harst C.J., & Smith, K. (2005). Out of the box: Critical literacy in a first-grade classroom. *Language Arts*, 82(5), 257-268.
- Levy, C. M., & Ransdell, S. (1995). Is writing as difficult as it seems? *Memory & Cognition*, 23(6), 767-779.

<http://dx.doi.org/10.3758/BF03200928>

- Lieberman, I. Y., Shankweiler, D. P., Fischer, F. W., & Carter, B. (1974). Explicit syllable and phoneme segmentation in the young child. *Journal of Experimental Child Psychology, 18*, 210–212.
- Louden, W., Rohl, M., Barrat-Pugh, C., Brown, C., Cairney, T., Elderfield, J., House, H., Meiers, M., Rivaland, J., & Rowe, K.J. (2005). *In teachers' hands: Effective literacy teaching practices in the early years of schooling*. Canberra, ACT: Australian Government Department of Education, Science and Training.
- Loeffler, K.A. (2005). No more Friday spelling tests? An alternative spelling assessment for students with learning disabilities. *Teaching Exceptional Children, 37*(4), 24–27.
- Martin, J.R. (1985). *Factual writing: Exploring and challenging social reality*. Geelong, Victoria: Deakin University Press.
- McCarrier, A., Pinnell, G. S. Fountas, I. (2000). *Interactive writing: How language and literacy come together in K-2*. Portsmouth, NH, Heinemann.
- McConachie, S. M. & Petrosky, A. R. (2010). *Content matters: A disciplinary literacy approach to improving student learning*. San Francisco, CA: Jossey-Bass.
- McCutchen, D. (1996). A capacity theory of writing: Working memory in composition. *Educational Psychology Review, 8*(3), 299–325.  
<https://doi.org/10.1007/BF01464076>
- McCutchen, D. (2000). Knowledge, processing, and working memory: Implications for a theory of writing. *Educational Psychologist, 35*(1), 13–23.  
[http://dx.doi.org/10.1207/S15326985EP3501\\_3](http://dx.doi.org/10.1207/S15326985EP3501_3)
- McCutchen, D., Teske, P., & Bankston, C. (2008). Writing and cognition: Implications of the cognitive architecture for learning to write and writing to learn. In C. Bazerman (Ed.), *Handbook of research on writing: History, society, school, individual, text* (pp. 451–470). New York, NY: Taylor & Francis Group/Lawrence Erlbaum Associates.
- McTighe, J., & Lyman, F. T. (1988). Cueing thinking in the classroom: The promise of theory-embedded tools. *Educational Leadership, 45*(7), 18–24.
- Medwell, J., Wray, D., Poulson, L., & Fox, R. (1998). *Effective teachers of literacy*. Retrieved from <http://www.leeds.ac.uk/educol/documents/000000829.htm>.
- Mercer, N. (1995). *The guided construction of knowledge: Talk amongst teachers and learners*. Philadelphia: Multilingual Matters.
- Mercer, N. (2000). *Words and minds: How we use language to think together*. London: Routledge.
- Michaels, S., O'Connor, M. C., Hall, M. W, & Resnick, L. B. (2002). *Accountable talk: Classroom conversation that works*. (Version 2.1). [Online resource]. Pittsburgh, PA: University of Pittsburgh.
- Murphy, P. K., Wilkinson, I. A. G., Soter, A. O., Hennessey, M. N., & Alexander, J. F. (2009). Examining the effects of classroom discussion on students' high-level comprehension of text: A meta-analysis. *Journal of Educational Psychology, 101*, 740–764.
- National Assessments of Educational Progress (NAEP). (2013). *Monitoring progress toward successful K-12 STEM education: A nation advancing?* Washington, DC:

- The National Academies Press. <https://doi.org/10.17226/13509>.
- National Commission on Writing. (2003). *The neglected "r": The need for a writing revolution*. New York: College Entrance Examination Board.
- National Council for Curriculum and Assessment. (NCCA)/Department of Education and Science (DES). (1999). *English curriculum: Content objectives and teacher guidelines*. Dublin: Stationery Office.
- NCCA. (2005). *An evaluation of curriculum implementation in primary schools: English, mathematics and visual arts*. Dublin: Author. Retrieved from: [https://www.education.ie/en/Publications/Inspection-Reports-Publications/Evaluation-Reports-Guidelines/insp\\_evaluation\\_curriculum\\_implementation\\_p\\_pdf.pdf](https://www.education.ie/en/Publications/Inspection-Reports-Publications/Evaluation-Reports-Guidelines/insp_evaluation_curriculum_implementation_p_pdf.pdf)
- NCCA. (2008). *Primary curriculum review, Phase 2 final report*. NCCA: Dublin.
- NCCA. (2015). *Primary language curriculum: curaclam teanga na bunscoile (English medium schools)*. Dublin: Author. Retrieved from: <http://curriculumonline.ie/Primary/Curriculum-Areas/Language/Learning-Outcomes-English-and-Irish/Learning-Outcomes>
- NCCA. (2016). *Support materials stage 1 and 2: The writing workshop*. Dublin: Author. Retrieved from: [http://www.curriculumonline.ie/getmedia/4c5b8a32-a9f9-42b8-94b5-36271572bc22/W\\_WritingWorkshop-FORWEBpdf.pdf?ext=.pdf](http://www.curriculumonline.ie/getmedia/4c5b8a32-a9f9-42b8-94b5-36271572bc22/W_WritingWorkshop-FORWEBpdf.pdf?ext=.pdf)
- NCCA. (2019). *Primary language curriculum. English medium schools*. Dublin: Department of Education and Skills.
- National Council of Teachers of English. (NCTE). (2016). *Professional knowledge of the teaching of writing*. Urbana, IL: National Council of Teachers of English. <http://www.ncte.org/positions/statements/writingbeliefs>
- NRP (National Reading Panel). (2000). *Teaching children to read: An evidence-based assessment of the scientific literature on reading and its implications for reading instruction- reports of the sub-groups (National Institute of Health Pub. No. 00-4754)*. Washington, DC: National Institute of Child Health and Human Development.
- Neuman, S. B., & Shanahan, T. (1997). Conversations: Literacy research that makes a difference. *Reading Research Quarterly*, 32(2), 202–210.
- Nystrand, M. (2006). Research on the role of classroom discourse as it affects reading comprehension. *Research in the Teaching of English*, 40(4), 392-412.
- O'Brien, D. G., Moje, E. B., & Stewart, R. A. (2001). Exploring the context of secondary literacy: Literacy in people's everyday school lives. In E.B. Moje & D.G. O'Brien (Eds.), *Constructions of literacy: Studies of teaching and learning in and out of secondary classrooms* (pp. 27-48). Mahwah, NJ: Erlbaum.
- Parr, J. M., & Limbrick, L. (2010). Contextualising practice: Hallmarks of effective teachers of writing. *Teaching and Teacher Education*, 26(3), 583–590. doi:10.1016/j.tate.2009.09.004.
- Pajares, F. (2007). Empirical properties of a scale to assess writing efficacy in school contexts. *Measurement and Evaluation in Counselling and Development*, 39, 239-249.
- Pajares, F., Johnson, M. J., & Usher, E. L. (2007). Sources of writing self-efficacy beliefs of

- elementary, middle, and high school students. *Research in the Teaching of English*, 42, 104–120.
- Paris, S. G., Lipson, M. Y., & Wixson, K. K. (1994). Becoming a strategic reader. In R. B. Ruddell, M. R. Ruddell, & H. Singer (Eds.), *Theoretical models and processes of reading* (pp. 788–811). Newark, DE: International Reading Association.
- Paris, S. G. (2005). Reinterpreting the development of reading skills. *Reading Research Quarterly*, 40(2), 184–202.
- Pearson, D. P., & Gallagher, M. C. (1983). The instruction of reading comprehension. *Contemporary Educational Psychology*, 8, 317–344.
- Philippakos, Z. A., & MacArthur, C. A. (2016). The effects of giving feedback on the persuasive writing of fourth- and fifth-grade students. *Reading Research Quarterly*, 51(4), 419–433. <https://doi-org.dcu.idm.oclc.org/10.1002/rrq.149>
- Pressley, M., Yokoi, L., Rankin, J., Wharton-McDonald, R., & Mistretta, J. (1997). A survey of the instructional practices of grade 5 teachers nominated as effective in promoting literacy. *Scientific Studies of Reading*, 1(2), 145–160. doi:10.1207/s1532799xssr0102\_3.
- Pressley, M., Wharton-McDonald, R., Mistretta-Hampson, J., & Echevarria, M. (1998). Literacy instruction in 10 fourth and fifth grade classrooms in upstate New York. *Scientific Studies of Reading*, 2(2), 159–194. doi:10.1207/s1532799xssr0202\_4.
- Pressley, M. (2001). *Effective beginning reading instruction: A paper commissioned by the National Reading Conference*. Chicago, IL: National Reading Conference.
- Pressley, M. (2002). Metacognition and self-regulated comprehension. In A. E. Farstrup & S. J. Samuels (Eds.), *What the research has to say about reading instruction* (3<sup>rd</sup> Ed., pp. 291–309). Newark, DE: International Reading Association.
- Pressley, M. (2006). *Reading instruction that works: The case for balanced literacy instruction* (3<sup>rd</sup> Ed.). New York: Guilford.
- Pressley, M., El-Dinary, P. B., Gaskins, I., Schuder, T., Bergman, J., & Almasi, J. (1992). Beyond direct explanation: Transactional instruction of reading comprehension strategies. *The Elementary School Journal*, 92(5), 511–555.
- Pressley, M., Rankin J., & Yokoi, L. (1996). A survey of instructional practices of primary teachers nominated as effective in promoting literacy. *The Elementary School Journal*, 96(4), 363–384.
- Pressley, M., Allington, R. L., Wharton-McDonald, R., Collins Block, C., & Mandel Morrow, L. (2001). *Learning to read: Lessons from exemplary first-grade classrooms*. New York: Guilford.
- Pressley, M., Wharton-McDonald, R., Raphael, L. M., Bogner, K., & Roehrig, A. (2002). Exemplary first grade teaching. In B. M. Taylor & P. D. Pearson (Eds.), *Teaching reading: Effective schools and accomplished teachers* (pp. 73–88). Mahwah, NJ: Erlbaum.
- Pressley, M., Dolezal, S. E., Raphael, L. M., Mohan, L., Roehrig, A. D., & Bogner, K. (2003). *Motivating primary-grade students*. New York: Guilford.
- Professional Development Service for Teachers. (PDST). (2014). *A structured approach to the teaching and learning of the writing genre*. Dublin: Author.
- Putnam, R. (2017). Using research to make informed decisions about the spelling curriculum. *Texas Journal of Literacy Education*, 5(1), 24-32.

- Pytash, K. E., & Morgan, D. N. (2014). Using mentor texts to teach writing in science and social studies. *The Reading Teacher*, 68, 93–102. <https://doi.org/10.1002/trtr.1276>
- Resnick, L. B., & Hampton, S. (2009). *Reading and writing grade by grade*. Newark, DE: International Reading Association.
- Robinson, R.D. (Ed.) (2005). *Readings in reading instruction: Its history, theory, and development*. Boston, MA: Pearson.
- Roche, M. (2015). *Developing children's critical thinking through picturebooks: A guide for primary and early years students and teachers*. Abingdon Oxon. Routledge.
- Rogoff, B. (1990). *Apprenticeship in thinking: Cognitive development in social context*. New York, NY, US: Oxford University Press.
- Rosenblatt, L. M. (1978). *The reader, the text, the poem: The transactional theory of literary work*. Carbondale, IL: Southern Illinois University Press.
- Rosencrans, G. (1998). *The spelling book: Teaching children how to spell, not what to spell*. International Reading Association, Newark, DE.
- Rothery, J. (1996). Making changes: Developing an educational linguistics. In R. Hasan & G. Williams (Eds.), *Literacy in Society* (pp. 86–123). London: Longman.
- Saddler, B., Moran, S., Graham, S., & Harris, K. (2004). Preventing writing difficulties: The effects of planning strategy instruction on the writing performance of struggling writers. *Exceptional Children*, 12(1), 3-17.
- Santangelo, T., Harris, K. & Graham, S. (2016). Self-regulation and writing: Meta-analysis of the self-regulation processes in Zimmerman's and Risemberg's model. In C. A. MacArthur, S. Graham, & J. Fitzgerald (Eds.), *Handbook of writing research* (2<sup>nd</sup> Ed., pp 174-193), New York: Guilford Press
- Savage, R., Carless, S., & Ferraro, V. (2007). Predicting curriculum and test performance at age 11 years from pupil background, baseline skills and phonological awareness at age 5 years. *Journal of Child Psychology & Psychiatry*, 48(7), 732–739.
- Schunk, D. H. (2001). Social cognitive theory and self-regulated learning. In B. J. Zimmerman & D. H. Schunk (Eds.), *Self-regulated learning and academic achievement: Theoretical perspectives* (pp. 125-151). Mahwah, NJ, US: Lawrence Erlbaum Associates Publishers.
- Schunk, D. H., & Zimmerman, B. J. (2007). Influencing children's self-efficacy and self-regulation of reading and writing through modeling. *Reading and Writing Quarterly*, 23, 7-25.
- Serafini, F. (2008). The pedagogical possibilities of postmodern picturebooks. *The Journal of Reading, Writing and Literacy*, 2(3), 23-41.
- Shanahan, T., & Shanahan, C. (2008). Teaching disciplinary literacy to adolescents: Rethinking content-area literacy. *Harvard Educational Review*, 78(1), 40-59. <http://dx.doi.org/10.17763/haer.78.1.v62444321p602101>
- Shanahan, T., & Shanahan, C. (2012). What is disciplinary literacy and why does it matter? *Topics in Language Disorders*, 32(1), 7–18.
- Shanahan, T. (2012). Disciplinary literacy is not the same as content-area reading. *Newsletter of the Center for Development and Learning*. Accessed at: <https://www.cdl.org/articles/disciplinary-literacy-is-not-the-same-as-content-area-reading/>

- Shanahan, T. (2016). Relationships between reading and writing development. In C. A. MacArthur, S. Graham, & J. Fitzgerald (Eds.), *Handbook of writing research* (pp. 194-207). New York, NY, US: The Guilford Press.
- Shanahan, T. (2019). *Disciplinary literacy in the primary school*. Dublin: NCCA.
- Shulman, L. S. (1987). Knowledge and teaching: Foundations of the new reform. *Harvard Educational Review*, 57(1), 1–22.
- Snow, C., & Uccelli, P. (2009). The challenge of academic language. In D. Olson & N. Torrance (Eds.), *The Cambridge handbook of literacy* (pp. 112–133). New York: Cambridge University Press
- Snow, C. E., Griffin, P., & Burns, M. S. (Eds.). (2005). *The Jossey-Bass education series. Knowledge to support the teaching of reading: Preparing teachers for a changing world*. San Francisco, CA, US: Jossey-Bass.
- Snow, C. & Oh, S.S. (2011). Assessment in early literacy research. In S. B. Neuman & D.K. Dickinson (Eds.), *Handbook of literacy research*, (Vol. 3 pp. 375-395). New York: Guilford Press.
- Snowling, M. J. (2000). *Dyslexia* (2nd ed.). Malden: Blackwell Publishing.
- Taylor, M. (2000). *Faraway home*. Dublin: O'Brien Press.
- Templeton, S. & Morris, D. (2000). Spelling. In M.L. Kamil, P.B. Mosenthal, P.D. Pearson, & R. Barr (Eds.) *Handbook of Reading Research: Volume III* (pp.525-544): Mahwah, NJ: Lawrence Erlbaum Associates Publishers.
- Topping, K., & Ferguson, N. (2005). Effective literacy teaching behaviours. *Journal of Research in Reading*, 28(2), 125–143.
- Tracy, B., Reid, R., & Graham, S. (2009). Teaching young students strategies for planning and drafting stories: The impact of self-regulated strategy development. *Journal of Educational Research*, 102(5), 323-331.
- Troia, G. A. (2006). Writing instruction for students with learning disabilities. In C. A. MacArthur, S. Graham, & J. Fitzgerald (Eds.), *Handbook of writing research* (pp. 324-336). New York, NY, US: The Guilford Press.
- Troia, G. A., Lin, S. C., Monroe, B. W., & Cohen, S. (2009). The effects of writing workshop instruction on the performance and motivation of good and poor writers. In G. A. Troia (Ed.), *Instruction and assessment for struggling writers: Evidence-based practices* (pp. 77-104). New York: Guilford Press.
- Tribble, C. 2009. Writing academic English – A review of current published resources. *English Language Teaching Journal*, 63, 400–417.
- Van Der Heide, J. (2017). Classroom talk as writing instruction for learning to make writing moves in literary arguments. *Reading Research Quarterly*, 53(3), 323-344.
- Vasquez, V. M., Janks, H., & Comber, B. (2019). Critical Literacy as a Way of Being and Doing. *Language Arts; Urbana*, 96(5), 300–311.
- Vygotsky, L. S. (1978). *Mind and society: The development of higher psychological processes* (M. Cole, V. John-Steiner, S. Scribner, & E. Souberman, Eds. & Trans.). Cambridge, MA: Harvard University Press. (Original work published 1934).
- Wigfield, A., & Guthrie, J. T. (1997). Relations of children's motivation for reading to the amount and breadth of their reading. *Journal of Educational Psychology*, 89(3), 420– 432.

- Wray, D., Medwell, J., Poulson, L., & Fox, R. (2002). *Teaching literacy effectively in the primary school*. London: Routledge Falmer.
- Younger, M., Warrington, M., & McLellan, R. (2002). The problem of 'under-achieving boys': Some responses from English secondary schools. *School Leadership and Management*, 22(4), 389–405.
- Zimmerman, B. J. (1998). Developing self-fulfilling cycles of academic regulation: An analysis of exemplary instructional models. In D. H. Schunk & B. J. Zimmerman (Eds.), *Self-regulated learning: From teaching to self-reflective practice* (pp. 1–19). New York: Guilford Press.
- Zimmerman, B. J. (2000). Attaining self-regulation: A social cognitive perspective. In M. Boekaerts, P. R. Pintrich, & M. Zeidner (Eds.), *Handbook of self-regulation* (pp. 13–39). San Diego, CA, US: Academic Press. <http://dx.doi.org/10.1016/B978-012109890-2/50031-7>
- Zimmerman, B. J. (2001). Theories of self-regulated learning and academic achievement: An overview and analysis. In B. J. Zimmerman & D. H. Schunk (Eds.), *Self-regulated learning and academic achievement: Theoretical perspectives* (pp. 1–37). Mahwah, NJ, US: Lawrence Erlbaum Associates Publishers.
- Zimmerman, B. J., & Kitsantas, A. (2002). Acquiring writing revision and self-regulatory skill through observation and emulation. *Journal of Educational Psychology*, 94(4), 660–668. <http://dx.doi.org/10.1037/0022-0663.94.4.660>
- Zygouris-Coe, V. (2012). Disciplinary literacy and accountable talk. Newsletter of the Centre for Development and Learning. Accessed at: <https://www.cdl.org/articles/disciplinary-literacy-and-accountable-talk/>